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WITH RECOMMENDATIONS FOR IMPROVEMENT

be accepted as fulfilling this part of the requirements for the degree of DOCTOR OF EDUCATION

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WITH RECOMMENDATIONS FOR IMPROVEMENTS

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by

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CHAPTER I
INTRODUCTION

Purpose of the Study

The purpose of the study is to develop a proposal for a public schoolhousing program for Brown County, Ohio, to be used as a guide by the professional **and** lay leaders there in determining how to meet more adequately the educational needs of that community.

Need for the Study

Educational authorities are agreed that educational planning, including schoolhouse planning, should be a continuous process. As the educational program is projected into the future, the schoolhousing program should be projected, also. Since, in the past, there has been no integrated schoolhouse planning in Brown County, there is now a special need for an organized study of educational and schoolhousing problems. Some of the school buildings are overcrowded, some are not advantageously located, some appear to be obsolete; altogether this indicates clearly that the needs of the pupils are not being met adequately.

Legislation has been enacted in Ohio, and further legislation is being urged, that will affect school district organization and schoolhouse construction by encouraging the formation of larger school districts, increasing state participation in financing schoolhousing and revising the Ohio Building Code.¹ Very little progress was made during the 1951

¹ T. G. O'Keefe, "A Job Half Done," Ohio Schools, 27 (September, 1949), 254-255.

session of the Ohio General Assembly, but educators generally are optimistic that the 1953 session will be more favorably inclined to the consideration and disposition of public education problems. Some suggested patterns of federal aid to education indicate the probability that schoolhouse construction will be a part of, or a substitute for, general aid to education.² More recently, however, there are indications that new proposals for federal aid to education in any form will not compete successfully with military and foreign aid demands.³

The administrators of the public schools in Brown County apparently want to be ready to meet impending changes successfully, and since the school system has no schoolhousing specialist, the school authorities were very anxious to have this study made. They have cooperated in every way to make it a success.

If the best possible program is to be developed, schoolhouse planning must be a co-operative process in which citizens, teachers, building employees, pupils, administrators, and others will pool their studied opinions. There is a need in Brown County, as there is in any community, to provide opportunities for all concerned with schoolhousing to become better informed regarding recent developments, not only in schoolhousing, but also in areas related to schoolhousing. Thus,

² "Aid to Education," Architectural Forum, 91 (October, 1949), 12-13.

³ "Federal Aid Improbable," American School Board Journal, 124 (March, 1952), 48.

although the emphasis of this study is on schoolhousing, a number of pertinent related areas are considered. To this end, conferences were held with individuals and groups in order to secure their co-operation and to discuss various allied educational trends. The professional staff, secretaries, custodians, and pupils co-operated in certain phases of the study, especially in the evaluation of the educational adequacy of existing school plants.

Keeping the people of Brown County informed has been a continuous process during the progress of this study. A number of excellent editorials, as well as news items, have appeared in the weekly newspapers of the county. Virtually all of these have been favorable to more educationally effective schoolhousing and school district organization. The subject has been discussed at many meetings of small groups, but one of the most important meetings thus far was an all-county boards of education meeting at Russellville in the Spring of 1952. The Assistant Superintendent of Public Instruction of the State of Ohio, Mr. Eyman, and the Director of Public School Transportation, Mr. Welshimer, were the principal speakers. Their up-to-date presentation was very favorably received and was followed by group discussions for about one and one-half hours.

Another big step forward was taken on July 19, 1952, when the County Board of Education appointed a Lay Advisory Committee representing all of the school districts in Brown County. The County Superintendent of Schools was named the executive secretary of this group. Meetings are to be held from time to time at which reorganization and schoolhousing

problems will be discussed. Mr. Eymann was the discussion leader at the first meeting of the committee which was held in the office of the County Superintendent of Schools on October 30, 1952. The first ten chapters of this study in mimeographed form were presented to each committee member and a discussion of them followed. Additional copies were given to each school principal and to each board of education within a few days of this meeting. The second meeting of the committee was held on January 12, 1953. Chapters XI and XII of this study were presented and the discussion which followed was directed chiefly to the proposals in Chapter XII for the reorganization of administrative units, reorganization of attendance units, and locations of schoolhouses. Future meetings will be called to discuss these and related issues.

It is anticipated that the values of the study will reach beyond Brown County, since the superintendents of the Brown County School District and of the Georgetown Exempted Village School District are active and influential in local, state, and national professional organizations. Thus, during the school year that foundation data for this study were gathered, the superintendent of the Brown County School District was president of the Southwestern Ohio Superintendents' Association, and also was and now is a member of the Reorganization Sub-committee of the Schools Committee of the Ohio Program Commission, and is on the Executive Committee of the Ohio Education Association. Because of the professional interests and activities of the superintendents and of the principals and teachers working under their supervision, it is anticipated that other school systems, particularly in Ohio, will be interested in and

will profit from the study. This is especially true, since the State Department of Education is participating in the progress that is being accomplished by making a number of its key personnel available for leading discussions at important lay and professional meetings in Brown County.

Nature of the Study

This is an appraisal-survey study of public schoolhousing in Brown County, Ohio, in which all existing school plants were appraised by using a guide for evaluating school buildings,⁴ and recommendations based in part on the appraisal were made regarding the housing required for the projected educational program. Thus, these recommendations were based on objective evaluations of the educational adequacy of existing schoolhousing to care for the projected program, as well as a study of related problems.

The literature on schoolhouse planning was carefully surveyed to insure that recommendations were in agreement with current developments in this area of educational administration. In addition, conferences were held and letters were exchanged with state and national authorities in order to gain a better understanding of planning at those levels, and to see the local problems in their larger setting. Further, conferences were held with professional and lay individuals and groups in Brown County to plan with them how to meet the many problems involved in projecting

⁴ Ralph D. McLeary, Guide for Evaluating School Plants. Cambridge: New England School Development Council, 1949. Pp. ii / 52.

their schoolhousing program.

Delimitation of the Study

This study is limited to the development of a proposal for a public schoolhousing program for Brown County, Ohio. It is based chiefly on the evaluation of the existing school plants and recommendations for more adequate schoolhousing. In this planning period, preceding the actual construction of new school buildings, the work done was similar to that of any educational consultant in schoolhouse planning.

Related Studies

Many studies and reports provided much pertinent information helpful in the preparation of this study. Five of these studies and reports are definitely more related than the others; one is a study of the public schools of Brown County, two are concerned with public schoolhousing and school district reorganization in the State of Ohio, while the other two deal with these and related problems in the forty-eight states.

The study of the public schools of Brown County, sponsored by the United States Office of Education and the Ohio State Department of Education, was made during the school year 1935-1936.⁵ A study was made of each of the eighty-eight counties in Ohio, reports of each being mimeographed and bound. A report analyzing the status in the state as a whole was made, also.

⁵ A Study of the Public Schools of Brown County. Columbus: United States Office of Education and the Ohio State Department of Education, 1937. Pp. 1 / 101.

The report concerning Brown County consists of two major parts, the first containing the information on which the recommendations found in the second were based. The chapters of the first part present information regarding the general historical and educational background of the county, its physical and economic factors, its population, school enrollment, school organization, teacher personnel, the school plant, pupil transportation, and school finance and support. The second part is concerned largely with recommendations for reorganization of the school districts. It proposes that the Georgetown Exempted Village School District remain as it is now, and that the then fifteen local districts under the supervision of the Brown County Board of Education be reorganized into six districts, thus making a recommended total of seven districts in the county, each offering a twelve-year program of education.

In 1949, Bartels completed a survey of the immediate public schoolhousing needs in Ohio.⁶ His was a questionnaire study sponsored by the Ohio Education Association and participated in by school administrators throughout the state. The purpose of his study was to assist in an early statewide attack upon problems related to public schoolhousing, and to ascertain the volume of schoolhouse construction needs in Ohio, the financial resources available to Ohio's school districts in meeting these needs, and to suggest implications for remedial measures which might be placed into operation to help provide needed new school plant

⁶ Martin H. Bartels, "A Survey of the Immediate Housing Needs of Ohio Public Schools." Unpublished Doctor's Dissertation, The Ohio State University, 1949. Pp. ii / 124.

facilities.

Most pertinent to the present study is Bartels' investigation of the possible influence of reorganization upon local ability to finance school building construction. Of the eighty-two counties from which replies were received, sixty-three counties reported at least one district under county supervision with deficient resources for meeting its building needs. When city districts and exempted villages were also considered, the number of counties reporting at least one district with a deficiency rose to seventy. By comparing totals for deficiencies and excesses in these counties, it was possible to assume a "reorganization" based on combining all reporting schools under a given county organization. When this was done for schools under county supervision, the number of counties reporting districts with deficiencies dropped from sixty-three to twenty-nine, and the total deficiency for all responding districts dropped from \$38.5 million to \$19.2 million, a reduction of approximately one-half. A theoretical combination of all reporting districts, city, county, and exempted village, within each of the counties yielded an even more spectacular reduction in deficiencies, reducing the number of counties with deficiencies from seventy to twenty, and reducing the total deficiency from \$38.5 million to \$8.6 million.

A report concerning school district reorganization in Ohio⁷ originated as a result of the interest of the Ohio County Superintendents'

⁷ The Conference of Deans of Education, School District Reorganization in Ohio. Ohio University Center for Educational Service, October 30, 1948. Pp. 3-35.

Association, the Ohio Exempted Village Superintendents' Association, and the Ohio Association of School Administrators in problems related to school district organization. At the request of these organizations the Conference of Deans of Education of the five Ohio state universities was asked to develop the study. The Conference of Deans delegated the responsibility for collecting data and making recommendations to the Center for Educational Service of Ohio University. The report, revised and approved by the Conference of Deans, is pertinent to the present study inasmuch as it presents criteria for the size of satisfactory administrative units and for the size of satisfactory attendance units, as well as recommendations for legislative action needed to secure adequate school district structure in Ohio.

Having observed that proper reorganization of local school districts is one of the most important needs for the provision of adequate public elementary and secondary schools in practically all the states of the Union, Floyd W. Reeves, director of the Rural Education Project of the University of Chicago, and Howard A. Dawson, executive secretary of the Department of Rural Education of the National Education Association, in the early part of 1946, jointly organized the National Commission on School District Reorganization. In their report⁸ they analyze school district organization in the United States, and set forth certain criteria to be used as guides in reorganization procedures.

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Howard A. Dawson and Floyd W. Reeves, *Your School District*.
Washington: National Education Association, 1948. Pp. 5 / 286.

These criteria have been incorporated by the Conference of Deans of Education in their study of school district reorganization in Ohio.

Another recent national study⁹ analyzes quite thoroughly a number of educational problems in the forty-eight states. At least one statement, which follows, pertains to the need for educational consultants on schoolhouse planning:¹⁰

Careful school plant planning is always of great importance because of the relative permanence of the investment and the effect of the structure on the educational programs. Proper planning requires not only the services of a competent architect who understands school problems, but of educational specialists who understand all of the issues involved. Only a few of the largest local systems in any state have staffs competent to deal with most of these problems, and even these systems need help on some problems.

The study recommends that state departments of education and universities have personnel available to render this kind of consultative service.

Several additional works of a general nature provided much background information about schoolhouse construction. Three of these are especially worthy of mention here. One of the works is concerned primarily with high schools and community colleges,¹¹ another presents

⁹ The Council of State Governments, The Forty-Eight State School Systems. Chicago: The Council, 1949. Pp. v / 245.

¹⁰ Ibid., p. 99.

¹¹ N. L. Engelhardt, N. L. Engelhardt, Jr., and Stanton Leggett, Planning Secondary School Buildings. New York: Reinhold Publishing Corporation, 1949. Pp. 1 / 252.

plans for public schools at **all** levels,¹² while the third deals entirely with planning rural community school buildings.¹³

Summary

To an ever greater extent educational authorities are urging that educational planning, including schoolhouse planning, should be a continuous process. Construction of new buildings and elimination or improvement of present structures should not be a "hit-or-miss" affair but rather a part of a long-range building plan, based on the projected educational program of the community, on an appraisal of existing buildings, and on the professional advice of schoolhousing specialists, working in co-operation with the educational and lay leaders of the community.

In Brown County, Ohio, as in many other parts of the state and nation, there is a very great need at the present time for a carefully planned school building program and a more educationally sound school district organization. State and federal legislation, recently enacted or proposed, may prove helpful in the realization of such plans by increasing state and federal participation in the financing of schoolhousing, by encouraging reorganization of school districts, and by

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Lawrence B. Perkins and Walter D. Cocking, Schools. New York: Reinhold Publishing Corporation, 1949. Pp. 107-264.

13

Frank W. Cyr and Henry H. Linn, Planning Rural Community School Buildings. New York: Bureau of Publications, Teachers College, Columbia University, 1949. Pp. vii-162.

modernizing building codes. The public school administrators of Brown County, in order to meet more adequately the educational needs of their community, and in order to take advantage of this legislation, are anxious to have as a guide a well-planned proposal for a public school building program. It is the purpose of this study to develop such a proposal.

All existing public school plants in Brown County were appraised by using a guide for evaluating school buildings, and recommendations based in part on these appraisals were made regarding the housing required for the county's educational system. Conferences were held and letters were exchanged with state and national authorities, and with professional and lay individuals and groups in Brown County. The literature on schoolhouse planning was carefully surveyed to insure that recommendations were in agreement with the most recent trends; and information was obtained from a number of related studies, ranging from a survey of the Brown County school system made in 1935-1936 to reports concerning reorganization and schoolhousing in Ohio and in the nation.

The next twelve chapters are concerned with various portions of this study as follows: Chapter II, procedure of investigation; Chapter III, educational setting; Chapter IV, organization and administration of the school system; Chapter V, projection of the educational program; Chapters VI through X, the evaluation of existing schoolhousing; Chapter XI, utilization of existing schools; Chapter XII, recommendations; and Chapter XIII, summary of the entire study.

CHAPTER II

PROCEDURE OF INVESTIGATION

Preliminary Negotiations

Although the need for schoolhousing and reorganization in Brown County may not be more acute than that in many other Ohio counties, certain educational and lay leaders in the county had expressed their opinions that co-operation in making such a study would be readily obtained from the school authorities there. In June, 1949, a conference was held with the Superintendent of the Brown County Schools, and in October with the Superintendent of the Georgetown Exempted Village Schools. Both superintendents expressed enthusiasm in the proposed study, not only because of possible local outcomes, but also because of state-wide implications. The boards of education acted favorably upon the suggestions of the superintendents that co-operation be given to the study.

At the October, 1949, meeting of the Brown County Principals' Association, the proposal for the study was submitted and explained, and although it was accepted with varying feelings, all agreed that such a study was needed. It was generally felt that the principals and those under their supervision could participate more wisely if they had, in convenient form, recent information concerning trends in schoolhouse planning. Accordingly a copy of the latest volume prepared under the auspices of the National Council on Schoolhouse Construction was made

available for the use of each principal.¹

It was suggested at this meeting that arrangements be made for any or all of the male principals and the superintendents to attend the December, 1949, meeting of the Cincinnati Schoolmasters' Club, since the program was to be a panel discussion concerning problems in schoolhouse planning with state and local authorities participating. The Principal of the Georgetown High School, who is a member of the club, and the Principal of the Ripley Schools attended. After the study was in progress, discussions were held with the principals and teachers concerning their thinking about educational problems. It is believed that these discussions stimulated a number of the professional staff to bring their thinking more in line with current trends in schoolhouse planning.

Conferences and Correspondence

Certain state and national authorities in the areas of schoolhouse planning and school district reorganization contributed to the study through conferences and correspondence.

State authorities.--One of the authorities consulted was Martin H. Bartels, then Director of Curriculum Development of the Cincinnati Public Schools, who had recently completed a study of the immediate schoolhousing needs in Ohio.² From time to time he was interviewed

¹ National Council on Schoolhouse Construction, Guide for Planning School Plants. Nashville: The Council, 1949. Pp. iii / 173.

² Martin H. Bartels, "A Survey of the Immediate Housing Needs of Ohio Public Schools." Unpublished Doctor's dissertation, The Ohio State University, 1949. Pp. ii / 124.

concerning problems of a statewide nature and their applications in the present study.

John H. Herrick, Director of the Survey Division, College of Education, The Ohio State University, was consulted in regard to possible source materials as well as his own thinking concerning schoolhouse planning and school district reorganization. Correspondence was carried on with Arthur J. Klein, the Executive Secretary of the Ohio Citizens Commission for the Public Schools until it was dissolved, T. G. O'Keefe, Director of Research of the Ohio Education Association, Robert L. Rohe, Director of School Finance for the State Department of Education, and Ralph A. Howard, then Acting Director of Vocational Education for the State Department of Education.

National authorities.---Conferences were held with at least two national authorities, T. C. Holy, Chairman of the Schoolhousing Committee of the American Council on Education and Director of the Bureau of Educational Research, College of Education, The Ohio State University; and Frank W. Hart, now Professor of Education, Emeritus, University of California at Berkeley, and for many years a nationally recognized authority on problems related to schoolhouse planning. Letters were received from Ray L. Hamon, Chief, Schoolhousing Section, United States Office of Education; Howard A. Dawson, Executive Secretary, Department of Rural Education, National Education Association; and Edgar Fuller, Executive Secretary, National Council of Chief State School Officers.

Description of the Educational Setting

As a preliminary to a study of its schools and to recommendations

for a schoolhousing program, it was necessary to have a background of information about Brown County, including its development and its early schools. Through personal observation and interviews, as well as through the use of reference materials, information was obtained concerning political subdivisions, climate, topography, villages, transportation facilities, occupations of the people, population trends, and the early schools.

Organization and Administration of the Schools

To obtain information concerning the organization and administration of the public schools, visitations were made in each school, and reports of the principals and superintendents, as well as sources containing laws pertaining to school district organization in Ohio, were studied.

Projection of the Educational Program

The programs of studies and co-curricular activities were examined for each of the schools, and classes in session were visited in each school, so that methodology could be observed. In all the schools, conferences were held with teachers individually or in groups, in order to discuss with them the projected educational program. Also of great assistance were several recommendations of the State Department of Education.

Prediction of School Enrollments

At best, the prediction of school population, particularly for each grade level, is precarious. After examination of a number of

techniques, the method developed and now used by the Bureau of Educational Research of The Ohio State University was selected. This method, described in Chapter IV, is recommended by the American Association of School Administrators.³

As required by the laws of Ohio, a school census is taken each year in each of the school districts in the county. Since the ages normally included are five to eighteen, this census is of some value in predicting enrollments of the immediate future, but is an inadequate basis for long-term planning. So that enrollment predictions might be improved, co-operation was secured in all the school districts in taking a census of pre-school children during the first year included in this study. The reports were submitted and analyzed, but it was felt, after examination and analysis, that the census had not been taken accurately enough to be used as a basis for enrollment prediction. It is anticipated, however, that all the districts will continue to take a school census that will include all pre-school children. With refinement of techniques, this kind of data will prove very helpful in future educational planning.

Selection of a Guide

As this study is concerned chiefly with the evaluation of existing public schoolhousing in Brown County, Ohio, and with recommendations for more adequate schoolhousing, it was necessary to use a

³ American Association of School Administrators, American School Buildings, pp. 50-57. Washington: The Association, 1949. Pp. 4 / 525.

guide for evaluating the existing housing. A number of guides were studied and finally the "Guide for Evaluating School Buildings,"⁴ prepared under the authorship of Ralph D. McLeary and under the direction of the New England School Development Council, was selected. Directions for using this guide are found in Appendix A. The following impressive excerpts⁵ taken from the preface indicate clearly why this particular guide was selected:

The preparation of this Guide is an outgrowth of a feeling of need for an instrument which would combine in convenient form brief statements of criteria, a numerical rating device, and profile charts for the graphical interpretation of school building evaluations. In its present state it is a thorough revision of a preliminary form used over a period of six years on scores of buildings by many people.

Previously developed evaluating devices for school buildings have generally required constant reference to accompanying "standards." Particularly conscientious scorers have found it necessary to check each item against the compilation of standards to avoid oversight of criteria. Others have relied upon memory and, with the additive form of scoring, have too often assigned scores which have later been difficult to explain.

The inclusion of brief criteria statements in each section of the scoring device, while requiring that the scorer be well grounded in what constitutes adequacy and excellence in school buildings, obviates the necessity of continual memory jogging. Furthermore, the subtractive method of scoring and the requirement that reasons for penalties be noted are intended to, and should, lead to greater definiteness in results.

⁴ Ralph D. McLeary, Guide for Evaluating School Buildings.
Cambridge: New England School Development Council, 1949. Pp. ii / 52.

⁵ Ibid., p. iii.

To further substantiate the use of the selected guide, correspondence was carried on with the Center for Field Studies, Harvard University; Educational Service Associates, Medford, Massachusetts; Tufts College; The New England School Development Council; and with Ralph D. McLeary, the author of the guide. All commented very favorably on the guide and attested to its increasing use in school systems from coast to coast.

Evaluation of Educational Adequacy of Existing Schoolhousing

A comprehensive evaluation was made of the existing schoolhousing by using the selected guide with the co-operation, in most of the schools, of the principals, teachers, pupils, and custodians. In addition, numerous conferences were held with these persons to discuss recent developments in schoolhouse construction.

Utilization of each schoolhouse was determined by using modifications of simplified forms that had been developed at the Bureau of Educational Research, College of Education, The Ohio State University. These forms are recommended by the American Association of School Administrators.⁶

Recommendations

The recommendations were formulated after analyzing the results of the foregoing procedures and after studying the following items: the

⁶ American Association of School Administrators, op. cit., p. 60.

ability of Brown County to finance schoolhouse construction, criteria for new attendance areas, and criteria for school district reorganization. Suggested steps to be followed in implementing the proposed schoolhousing program are included in the recommendations.

Summary

The purpose of this chapter is to present the procedures of investigation employed in making the study from preliminary negotiations to recommendations.

In 1949 conferences were held with the Superintendent of the Brown County Schools and with the Superintendent of the Georgetown Exempted Village Schools to discuss with them the need for this study and the likelihood of obtaining the co-operation of the several schools in making the study. The superintendents were enthusiastic in their reception of the proposal and later asked that their respective boards of education pass resolutions indicating their willingness to have the study made. Later, conferences were held and letters exchanged with local, state, and national authorities who were known to be especially interested in school district organization and schoolhousing.

Information about Brown County was obtained by reading portions of histories of Ohio and of Brown County, and through personal observation and interviews. Information concerning the organization and administration of the public schools in the county was obtained through conferences with the superintendents and principals, from reading monthly and annual reports, and from visitations in all of the public schools.

The educational program was studied by reading the programs of studies, by observing classes in session in each school, and by conferring with the superintendents, principals, and classroom teachers. Pupil enrollments were projected by grade through the school year 1957-1958 by employing the techniques developed by the Bureau of Educational Research of The Ohio State University.

To evaluate all of the existing schoolhousing in the county it was necessary to use a guide developed for that purpose. The guide selected was developed chiefly by Ralph D. McLeary and published by the New England School Development Council. All of the public schools in Brown County were evaluated by using this guide.

The recommendations were arrived at after studying the findings of the above procedures and after determining certain other factors such as the financial resources of the county, criteria for the size of satisfactory administrative units, and criteria for the size of satisfactory attendance units.

CHAPTER III
EDUCATIONAL SETTING

An understanding of the unique features of a community is an essential preliminary to projecting a schoolhousing program which will meet that community's needs. To help the reader attain a better understanding of Brown County, Ohio, brief summaries covering its historical background, political subdivisions, climate, topography, villages, transportation facilities, occupations of its people, and its population trends are presented here.

Early History

The area now known as Brown County was carved out of land once a part of Adams, Clermont, and Highland Counties. The partition was made through an act passed by the Ohio General Assembly on December 27, 1817. In the year 1818 the county began to function as a political subdivision. It was named in honor of General Jacob Brown, who distinguished himself in the War of 1812.¹

The region is rich in prehistoric relics and artifacts, ancient remains of the Mound Builders having been found in every township. The Ohio Archaeological and Historical Society reports the presence of

¹ Byron Williams, History of Clermont and Brown Counties, Ohio, pp. 385-386. Milford, Ohio: Hobart Publishing Co., 1913.

sixteen earth mounds, nine circles, four village sites, four groups of stone graves, two stone mounds, one enclosure, and one mound group.²

The territory was uninhabited at the time of its discovery and exploration by white men but was claimed by the Miami Indians. It was used as a hunting ground by these Indians, who then lived near the head waters of the Great Miami River.

About ten years after the beginning of the Revolutionary War the Miami tribes abandoned their towns in this area and removed to the region of the Maumee. The warlike Shawnees then established themselves on the headwaters of the Miami Rivers. After white men had begun settling in Kentucky, the Shawnees camped and hunted in the lands now included in Brown County, often crossing the Ohio River near the present sites of Aberdeen and Ripley to steal horses and otherwise molest the people in Kentucky. Tecumseh, in his youth, was often in this area.³

During the early Indian conflicts this territory saw considerable military action; the most important army which passed through the county in the campaigns against the Indians was that commanded by Colonel Benjamin Logan in 1786. Finally, after several years of continued fighting, and negotiation of treaties of Fort McIntosh in 1785, Fort Harmar in 1789, and Greenville in 1795, the Indians gave up their

² U. S. Office of Education and Ohio State Department of Education, A Study of the Public Schools of Brown County, pp. 1-3. Columbus: Ohio State Department of Education, 1937.

³ Ibid., pp. 2-3.

title to the lands in Brown County.⁴

It is quite likely that the first white men who built their isolated cabins within the limits of the present county boundaries were "squatters" upon the government owned lands of the United States. That there could have been any permanent settlements made before the ratification of the treaty made at Greenville by Anthony Wayne in 1795 seems improbable. Many pioneers, however, had purchased lands in this new territory long before it was safe to settle upon them. A number of families selected tracts of land for their future homes and remained in Kentucky to await the subjugation of the Indians before moving north of the Ohio River.⁵

According to some early historians, the first permanent settler in Brown County was Belteshazzar Drago who, in 1794, built a log cabin on Eagle Creek about three miles from Ripley. Whether or not this man, the father of twelve children, actually did establish the first settlement, it is certain that by 1799 there was a relatively large population on Eagle, Straight, Red Oak, and White Oak Creeks.⁶

It was in 1796 that the first great migration to the Northwest Territory began. Within a few years most of the fertile lands in

⁴ A Study of the Public Schools of Brown County, op. cit., pp. 2-3.

⁵ Josiah Morrow, The History of Brown County, Ohio, pp. 251-252. Chicago: W. H. Beers & Co., 1883.

⁶ Andrew B. Courts, "Geography of Brown County, Ohio," p. 4. Unpublished Master's thesis, Miami University, 1949.

southern Brown County had been occupied. As time went on, the tide of emigration grew stronger and settlements were made farther from the Ohio, until villages began to appear in response to the demand for more centers of trade and government.⁷ Decatur, formerly called St. Clairsville, was the first town in the county, having been laid out by Basil Duke and John Coburn, August 1, 1801.⁸

Topography

The topography of Brown County varies greatly. The contour is rugged in the south portion, and there are steep hills in the north near the streams. The highest elevation is in Jackson Township where hills rise to a height of 1,091 feet above sea level. The lowest elevation is approximately five hundred feet all along the Ohio River. There are large tracts of level land throughout the county which are well drained by nature, yet there are swamps of considerable extent in the north-central section. Glacial deposits cover eighty-seven per cent of the area, in fact all of the county except a portion in the southeastern part.⁹

Several tributaries of the Ohio River; the White Oak, Straight,

⁷ Byron Williams, op. cit., p. 385.

⁸ Josiah Morrow, op. cit., p. 252.

⁹ A Study of the Public Schools of Brown County, op. cit., p. 4.

Red Oak, and Eagle Creeks, drain the county. These streams have cut deep valleys and descend them with a comparatively rapid fall. The East Fork of the Little Miami flows southwest across the narrow northern section of the county.

The county contains an area of 495 square miles. While several counties in the state have a larger area, it is farther between the two most extreme corners of Brown County than in any of the other counties, the distance being about forty-five miles.¹⁰

Climate

The climate of the county is favorable to agriculture, the average length of the growing season being 178 days, almost four weeks longer than in some other parts of the state of Ohio. The mean annual rainfall over a period of almost twenty years previous to 1930 was forty-two inches, while the average for the state during that same period was between thirty-seven and thirty-eight inches. The mean annual temperature is fifty-four degrees; the mean annual temperature range is forty-two degrees.¹¹

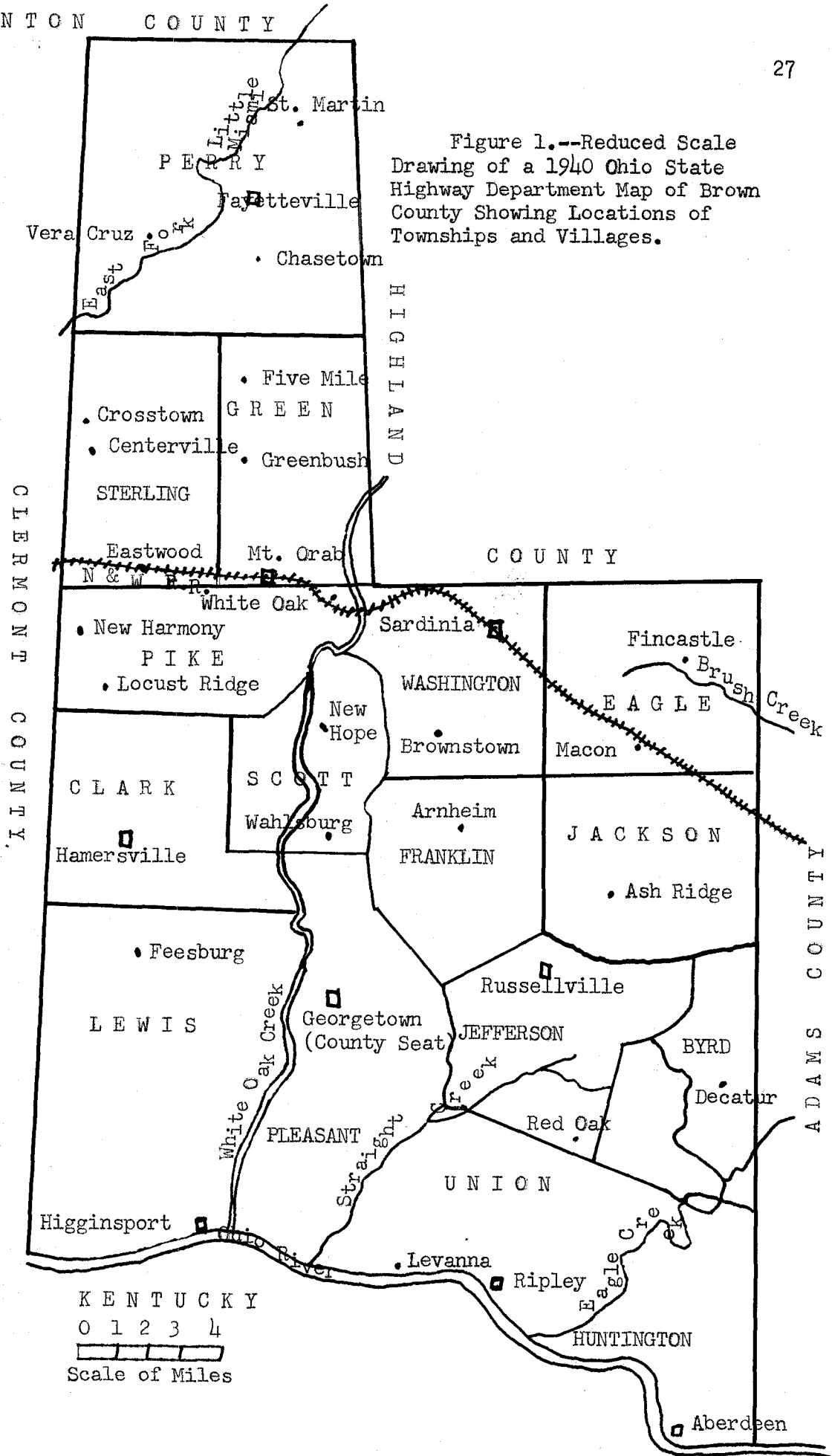
Political Subdivisions

There are sixteen townships in Brown County whose locations and shapes are shown in Figure 1.

¹⁰ Andrew B. Courts, op. cit., p. 6.

¹¹ A Study of the Public Schools of Brown County, op. cit.,
p. 4.

Figure 1.--Reduced Scale Drawing of a 1940 Ohio State Highway Department Map of Brown County Showing Locations of Townships and Villages.



KENTUCKY
 0 1 2 3 4
 Scale of Miles

Villages

A brief story of the development and present day status of the major villages is presented in the following pages. These larger villages and several of the smaller ones are located on the political map of Brown County in Figure 1. The population trends are shown in Table 2.

Aberdeen.--This Ohio River village, with a 1950 population of 551, located in Huntington Township, was originally laid out by Nathan Ellis, July 5, 1816, and was incorporated in 1850. It was probably named for Aberdeen, Scotland. The famous Zane's Trace ran through the town. Built between 1840 and 1842¹² and known as a turnpike, this trail ran northeast from the Ohio River at Aberdeen to Zanesville, leaving Huntington Township and passing into Adams County about three and one-half miles from Aberdeen.

Among early industries and businesses were saw mills and flour mills, a dry goods store, hotel, ferry, coal and lumber business, warehousing of leaf tobacco, tanneries, and blacksmith shops. Large amounts of fruit and farm produce are grown near Aberdeen and sold over a wide area of southern Ohio and northern Kentucky. One of the finest drive-in theaters in this section of Ohio is located here.

Decatur.--Decatur, which had a 1950 population of 150, is located in the eastern part of Byrd Township near the Adams County line. It was laid out in 1801, making it the oldest village in the county. It was

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Josiah Morrow, op. cit., p. 280.

first called St. Clairsville, but since another place in the state had the same name, the village was renamed Hard Scrabble,¹³ and later was named Decatur. A public square was left for a courthouse when Adams and Brown were still united, for it was confidently expected that this village would be made the county seat of Adams County.¹⁴

During the Civil War an institution of higher learning called the Ohio Valley Academy was located here. It enrolled 164 students between 1863 and 1865. Lack of support caused its decline and ultimate closing.

Early businesses and industries included blacksmith shops, a woolen factory, carpenter and wagon-maker shop, a saddlery and harness-making shop, a paint shop, a carding and fulling mill, a butcher shop, dry goods and grocery stores.

Today there is little business or industrial activity in Decatur. It has one of the few large general stores left in the county, and acetylene welding is done at one of the service stations.

Fayetteville.--Incorporated in 1868, Fayetteville, with a 1950 population of 401, is located in Perry Township, the largest and northern-most division in the county. It is on the south bank of the East Fork of the Little Miami, about thirty-five miles from Cincinnati, Ohio.

In 1811, Erastus Atkins built the first house on the ground

¹³ Josiah Morrow, op. cit., pp. 702-703.

¹⁴ Ibid., p. 697.

where Fayetteville now stands. Cornelius McGroarty, a native of Ireland, bought the present site of Fayetteville in 1818, then moved to this new village from his home in Cincinnati. He donated the land upon which St. Patrick's Church was built. Since many of the later residents were of French birth or immediate descent, they named the village for the famous French general, La Fayette.

Early industries and businesses included mills, a distillery, hotels, drug stores, saloons, and "other establishments for the different departments of trade, commerce, and manufacture."¹⁵

Two Catholic institutions of learning were established early in the community's history, the Brown County Theological Seminary being organized in 1840 with the objective of preparing young men for the priesthood. St. Patrick's Academy, founded in 1860 by Rev. Father Daly, has an active program today. The objective of this school is "to provide for boys between the ages of five and twelve years a place where they may enjoy all the comforts of home and care of parents, together with the benefits of salutary discipline and careful teaching in the usual English branches."¹⁶

Near Fayetteville is a branch of a Columbus rendering company which obtains dead and disabled animals for the making of fertilizer. A fur farm, where mink are raised, is located on U. S. Route 68, one half mile from the village.

¹⁵ Josiah Morrow, op. cit., p. 491.

¹⁶ Ibid., p. 330.

Georgetown.--Georgetown, the county seat of Brown County and its largest village with a 1950 population of 2200, is located upon an elevated, rolling tableland in the north central part of Pleasant Township. Laid out by Allen Woods in 1819, it was named after his father's former residence, Georgetown, Kentucky. The town was incorporated in 1832. When U. S. Grant was one year old his family moved from Point Pleasant in Clermont County to Georgetown where he spent his boyhood and youth until receiving his appointment to West Point in 1839. The school which he attended in Georgetown is now a museum.

Early businesses included flour mills, a tannery operated by the father of U. S. Grant, a newspaper publishing and printing business, a woolen factory, and the Georgetown Building and Loan Association.¹⁷ Today's industries and businesses include a shoe factory capable of manufacturing three thousand pairs of shoes a day, and at peak production employing three hundred workers. Others are tobacco and candy jobbing, dry cleaning, a jewelry store, a marble and granite company which deals in markers and monuments, an optometrist, a photographic studio, chicken hatcheries, a stove dealer, a tire recapping and retreading service, a tool repair shop, dealers in automobiles and farm machinery, dealers in household appliances, and a publishing and printing company which publishes "The News Democrat," a newspaper that has been published weekly for more than sixty years. Construction of a modern hospital with over fifty beds was started in the summer of 1950 and is now in

¹⁷ Josiah Morrow, op. cit., p. 390.

full operation.

Hamersville.--Nathaniel Moore, Sr., and George Flick laid out this Clark Township village in 1833. It was named in honor of Thomas L. Hamer, who, then a member of Congress from this district, was instrumental in having a post office located here. Its 1950 population was 380.

Early businesses included dry goods stores, saw mills and flour mills, grocery stores, a drug store, a tobacco warehouse, blacksmith shops. The village had a few professional men, including doctors and lawyers.

The Cincinnati and Portsmouth Railroad was graded across Clark Township in 1868, and the first train was run into Hamersville in December, 1881. A trip from Hamersville to Cincinnati and return, that had required three or four days by wagon, could then be accomplished in a few hours.¹⁸ This railroad has since been abandoned. Present day businesses include farm implement dealerships, a paint and body shop, an automobile upholstering service, a "swap" shop, a sheet metal work shop, a rest home, and a concern which manufactures a new type electric gate.

Higginsport.--This village with a 1950 population of 385, is located in the southeastern part of Lewis Township on the Ohio River near the mouth of White Oak Creek. Two attempts were made before the village was started successfully. At first the town was to be called White Haven, but the name was changed to Higginsport in 1816 by its founder, Colonel Robert Higgins.

¹⁸ Josiah Morrow, op. cit., pp. 528-529.

In the days when the Ohio River was the chief artery of travel, Higginsport was a town of considerable commercial activity. Early businesses included five general stores, a clothing store, two drug stores, two tin shops, one hardware store, four millinery and fancy stores, one tobacco store, and several groceries. Later Higginsport had a grist mill and distillery, seventeen tobacco warehouses, and about thirty tobacco buyers, who annually bought "about two million pounds of the weed."¹⁹ More recently, the decline in importance of river transportation has resulted in a gradual decrease of business activity. However, today there are several distinctive types of business in or near Higginsport, including a blue printing service, commercial hybrid seed corn growing, and one of the few greenhouses in the county.

Mt. Orab.---The only incorporated village in Green Township, Mt. Orab, with a 1950 population of 758, is located on Sterling Fork of White Oak Creek about twelve miles north of Georgetown and twelve miles south of Fayetteville. It was laid out in 1850 by Daniel Keethler, who named it for the biblical Mt. Horeb. The growth of the village was slow at first and few improvements were made until after the completion of the Cincinnati and Eastern Railroad, now the Norfolk and Western.

Among the early businesses were dry goods stores, blacksmith shops, a hardware and farm implement store, a tin shop, a wagon shop, a stave and hames factory, saw mills, flour mills, millinery stores, grocery and drug stores.²⁰ Present businesses include one of southern

¹⁹ Josiah Morrow, op. cit., p. 472.

²⁰ Ibid., pp. 649-650.

Ohio's largest plants specializing in the bottling and distribution of fuel gas. This gas, commonly known as "Rural Gas" and technically known as liquefied petroleum gas, is shipped into Mt. Crab by tank cars and is stored in two large tanks with a total capacity of forty-five thousand gallons. The business, a corporation, serves retail customers in a six-county area, and does a wholesale business in a larger area.

Other businesses are a neon sign and light shop; a large flour milling and lumber company; a bulldozing excavator service; a wood-working shop which specializes in making storm doors, windows, and screens; a typewriter service repair shop; and a broom and mop shop which has been in operation for over forty years and does business over a four-state area.

Ripley.--The village of Ripley, which had a 1950 population of 1792, is located in Union Township on the Ohio River about fifty-five miles upstream from Cincinnati. It was laid out in 1812 by Colonel James Poage of Virginia on a part of his one thousand acre tract. First called Staunton, after Staunton, Virginia, its name was later changed in honor of General Ripley, a distinguished officer in the War of 1812.

Ripley has long been famous as the place where the "Underground Railroad" had its entrance to the North during Civil War times. Hundreds of runaway slaves were secreted in the home of the Rev. John Rankin until they could make their escape farther north and into Canada. In June, 1948, this old home, having been restored, was dedicated as a State Historical Museum.

Early businesses and industries included boat and barge building,

saw and planing mills, pork packing, horse breeding and trading, a gas light and coke company, boot and shoe making, marble works, gunsmithing, farm implement manufacturing and jobbing, tobacco merchandizing, newspaper publishing, and flour and grist milling.²¹ Today, this village, the second largest in the county, has a large oil distributing plant, a shoe factory which employs about two hundred people, a pipe nipple shop, a foundry, an interstate commerce trucking business, an automobile parts distributor, a ferry boat, a bakery, a bottled gas business, four large tobacco warehouses, and many smaller businesses.

Russellville.--In 1817 Russell Shaw plotted a village in Jefferson Township and named it Russellville, which in 1950 had a population of 438. The early inhabitants did their trading in Maysville, Kentucky, but later, in 1834, Mr. Shaw opened a small store to serve the people there. Other early businesses included tanneries, shoe-making, harness making, wagon making, a hotel, and coopering. Some of the businesses now found there are a lumber company, a feed and ice company, insurance agencies, farm implement stores, automobile agencies, groceries, restaurants, and a drug store.

Sardinia.--Sardinia, which had a 1950 population of 699, was named for the Island of Sardinia in the Mediterranean Sea. It was laid out by William Lilley and Josiah Moore on March 30, 1833. Located in Washington Township, it is situated on the East Branch of White Oak Creek and on the only railroad now crossing Brown County. It was incorporated

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Josiah Morrow, op. cit., pp. 453-454.

in 1907, making it the most recently incorporated village in the county.

Early businesses included general and grocery stores, grist mills, saw mills, a tannery, cabinet shop, a windmill factory "which was an extensive affair, and the proprietor employed five or six workmen, and as many travelling salesmen," a cording machine, a carriage and buggy factory, and an establishment for the making of plows and wagons.²²

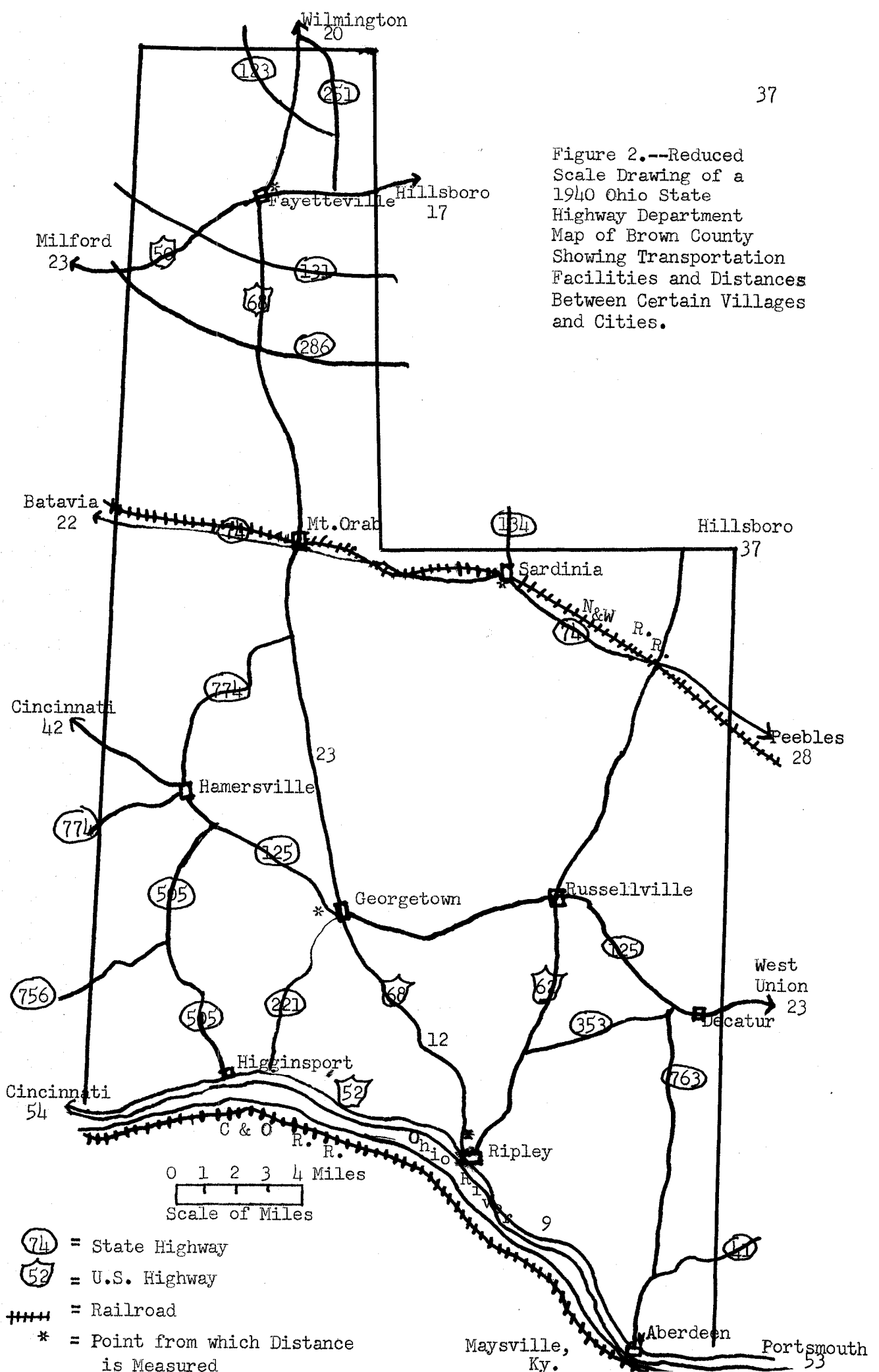
Present-day businesses in and near Sardinia include a concrete block factory; a food locker plant; a modern medical clinic; a wholesale meat and slaughtering plant; a lumber and veneer company; an egg farm which specializes in raising baby chicks, turkey poults, and ducklings; and a creamery which manufactures butter, cheese, ice cream, and powdered milk. This last named business also sells feeds, farm machinery, petroleum products, and other items used on farms.

Transportation Facilities

U. S. Highways.---Four U. S. highways go through Brown County; U. S. 50 crosses the county in the north and U. S. 52 crosses the county in the extreme south. Running approximately due north from Ripley are U. S. Route 68, which passes through Georgetown, Mt. Orab, and Fayetteville, and U. S. Route 62 which runs through Russellville. These, as well as the Ohio State highways and the railroad, are shown in Figure 2.

Ohio State Highways.---There are a number of state highways in the county, the two most-traveled ones being Ohio 74 and Ohio 125.

²² Josiah Morrow, op. cit., pp. 678-679.



Ohio 74 approximately parallels the only railroad in the county, passing through Mt. Orab and Sardinia. Ohio 125 runs through Hamersville, Georgetown, Russellville, and Decatur. Both of these routes lead directly into Cincinnati.

County Roads.--The system of hard surfaced and metal surfaced county roads rather adequately connects the highways with smaller villages and farm communities. Improvements are being planned and carried out continuously. It is anticipated that the county will take over the maintenance of many of the township roads in the next decade.

Township Roads.--Connecting the highways and county roads are township roads which are either metal or earth surfaced. Several of the earth surfaced roads are impassable at times in the winter months.

Railroads.--Although only one railroad, the Norfolk and Western, crosses Brown County, the Chesapeake and Ohio parallels the Ohio River at the northern edge of Kentucky. Trucks transport material to and from the railroad station in Maysville, Kentucky.

The Ohio River.--The river is not as important today as a means of transportation as it was in the early history of Brown County, owing to the rapid development of other means of conveying materials. While most of the river towns still depend upon this waterway as a means of receiving some freight, especially coal, its prime importance is that of serving as a link between southern Ohio and northern Kentucky markets.

Ripley, Higginsport, and Aberdeen have landings for river boats and public ferries. Within recent years river transportation has been greatly benefited by the completion of a series of dams and locks,

assuring a minimum nine-foot water stage throughout the year.²³

Aviation.--Air transportation has made little progress in Brown County. As yet there are no commercial airfields, but several proposed routes and airports are already mapped. This has been done under the supervision of the Civil Aeronautics Administration.²⁴

Tyler Airport, just west of Aberdeen, is a privately owned airfield which may become the first commercial airport for passenger and mail service. Air-mail pick-up service is already operating with Georgetown serving as the county station. Mail is picked up four times daily at the field near the village, two of the "pick-ups" going to Pittsburgh and two to Cincinnati.

Population Trends

As shown in Table 1, the population of Brown County is about the same today as it was in 1840. During this one hundred and ten year period there has, however, been a rise and decline, and recently a slight rise in the population. The population rose to a high of 32,911 in 1880, then declined to 20,148 in 1930.

Table 2 shows the population growth and decline from 1850 to 1950, of the ten largest villages in the county. Table 3 shows the

²³ Fowler and Green, Soil Survey of Brown County, Ohio, p. 4. Washington: Bureau of Chemistry and Soils, 1930.

²⁴ Andrew B. Courts, "Geography of Brown County, Ohio," p. 115. Unpublished Master's thesis, Miami University, 1949.

TABLE 1
POPULATION OF BROWN COUNTY BY
DECADES FROM 1820 TO 1950*

Year	Population
1820	13,356
1830	17,867
1840	22,715
1850	27,332
1860	29,958
1870	30,802
1880	32,911
1890	29,899
1900	28,237
1910	24,832
1920	22,621
1930	20,148
1940	21,638
1950	22,221

* Data compiled from U. S. Census Reports

TABLE 2

POPULATION TRENDS OF THE TEN LARGEST VILLAGES
IN BROWN COUNTY FROM 1850 TO 1950*

VILLAGE	Year										
	1850	1860	1870	1880	1890	1900	1910	1920	1930	1940	1950
Aberdeen	808	836	871	885	874	711	568	477	452	497	551
Decatur	---	---	---	258	---	---	---	---	303	158	150
Fayetteville	317	399	397	390	---	323	370	349	330	394	401
Georgetown	618	723	1037	1293	1473	1529	1580	1670	1531	1848	2200
Hamersville	---	---	---	231	264	242	276	235	267	349	380
Higginsport	535	507	530	762	764	650	417	353	374	373	385
Mt. Orab	---	---	---	242	336	561	539	545	541	589	758
Ripley	1780	2725	2323	2546	2483	2248	1840	1529	1556	1623	1792
Russellville	386	476	359	478	324	394	438	435	411	452	438
Sardinia	---	---	---	283	---	---	534	561	564	615	699

* DATA COMPILED FROM U. S. CENSUS REPORTS, 1850 TO 1950

TABLE 3

TOTAL POPULATION IN EACH TOWNSHIP IN
BROWN COUNTY, OHIO, 1940 AND 1950, AND
RURAL FARM POPULATION, 1940.*

Township	1940 Population	1950 Population	Rural Farm Population, 1940 **
Byrd	834	825	675
Clark	1,237	1,351	759
Eagle	742	582	529
Franklin	664	684	560
Green	1,497	1,636	825
Huntington	1,620	1,679	950
Jackson	748	696	695
Jefferson	991	1,042	583
Lewis	1,561	1,548	1,073
Perry	1,862	1,969	1,334
Pike	809	992	712
Pleasant	2,885	3,166	988
Scott	745	656	606
Sterling	854	870	788
Union	3,286	3,095	1,304
Washington	1,306	1,430	590
Total	21,638	22,221	12,921

* Data compiled from the Sixteenth and Seventeenth Census of the United States, 1940 and 1950.

** 1950 Data not available.

total population in 1940 and 1950, and the rural farm population for each of the sixteen townships and the entire county in 1940. The county is, of course, considered one hundred per cent rural by the Bureau of the Census, as no village has a population over twenty-five hundred. Of the total population of 21,638 in 1940, 12,921 were rural farm, the others not actually living on farms.

In 1940, the white population totalled 20,879, the negro population 759, and the number of foreign born persons was 91.²⁵ As shown in Table 3, the total 1950 population was 22,221.

Occupations

The people working in agriculture by far outnumber those working in all other gainful pursuits in the county. Table 4 indicates the number of workers fourteen years of age and older by sex, and by industry in which employed, in Brown County, Ohio, in 1940. Data for 1950 **have** not yet been made available.

Early Schools

Information regarding early attempts at education in Brown County is limited. The best source seems to be the 1937 Study of the Public Schools of Brown County, sponsored by the United States Office of Education and the Ohio State Department of Education.²⁶ The following

²⁵ Sixteenth Census of the U.S. 1940, p. 606. Washington: Government Printing Office, 1943.

²⁶ A Study of the Public Schools of Brown County, p. 3. Columbus: U. S. Office of Education and Ohio State Department of Education, 1937.

TABLE 4

NUMBER OF WORKERS FOURTEEN YEARS OF
AGE AND OLDER BY SEX, AND BY INDUS-
TRY IN WHICH EMPLOYED, IN BROWN
COUNTY, OHIO, IN 1940 *

Industry	Male	Female	Total
Agriculture	3,776	60	3,836
Retail Trade	485	156	641
Manufacturing	387	194	581
Construction	363	1	364
Professional and Related Services	188	167	355
Domestic Service	9	167	176
Transportation	159	7	166
Government	105	34	139

* Data compiled from the report of the Sixteenth Census of the United States, 1940. Data for 1950 are not available.

is quoted directly from this source:

It is difficult to find exact information concerning the first efforts at education. It is said that a cabin for school purposes was erected in Lewis township as early as 1802. One of the earliest teachers was Thomas Bonwell. Later a Reverend Mann taught school six months in the year by subscription, accepting grain, fruit, and home-spun goods for tuition. In Huntington township one of the oldest schoolhouses was built in 1805 or 1806. In 1807, schoolhouses were built in Higginsport and in Eagle Township. Soon every township had one or more crude cabins in which school was taught by subscription or the paying of fees. In 1828, a college was founded in Union Township by Reverend John Rankin and continued until 1832. At that time he established a female seminary. In 1840 he started another college which continued until 1849. The Ohio Valley Academy was an educational institution of an advanced grade which was established at Decatur. Rev. J. A. R. Rodgers and others started it about 1862. The academy continued for only a few years. In 1860, Rev. Father Daly founded St. Patrick's Academy, at Fayetteville. A boarding school for young boys was maintained here. There was also a parish school under the management of the Sisters of Charity.

The first school in Ripley was taught by Zaccheus Martin, in 1816. The first schoolhouse was of logs and when it burned down a frame building was erected. All teaching done here was under the "Free School System" three months of the year. A Union School was built in 1849 and the schools were first graded in 1853. This important change in the management of the schools marks the beginning of a new era in the history of education in Ripley. The schools were organized under the general school laws of Ohio until 1861, when the school law of 1849 was unanimously adopted for the government of the schools.

Since the Civil War many small schools, mostly one room, have dotted the countryside of the county. All of the one room schools have now been abandoned. Today, nineteen buildings are used for school purposes.

Summary

By an act of the Ohio General Assembly in 1817, land that was once a part of Adams, Clermont, and Highland counties was made into a new political subdivision and named Brown County in honor of General Jacob Brown, who distinguished himself in the War of 1812. The topography of the county varies from hilly areas in the south near the

Ohio River to large tracts of level land throughout much of the remainder of the county. The area of the county is four hundred and ninety-five square miles. The climate is favorable to agriculture, both for raising plants and animals. In fact, the chief industry is agriculture.

Brown County is subdivided further into sixteen townships. The population of the whole county is shown from 1820 to 1950. The smallest population for those years was thirteen thousand three hundred and fifty-six in 1820, while the highest was thirty-two thousand nine hundred and eleven in 1880. The 1950 census showed a population for Brown County of twenty-two thousand two hundred and twenty-one.

Transportation facilities include United States highways, Ohio State highways, county and township roads, a railroad, the Ohio River, and airways.

Exact information about the earliest attempts at education in Brown County is not available. It is generally accepted, however, that the first school was a cabin constructed for this purpose in Lewis Township in 1802. Since then many schools, mostly one room, have come and gone. Today, nineteen buildings are used for school purposes, none of them being one-room schools.

CHAPTER IV

ORGANIZATION AND ADMINISTRATION OF THE SCHOOL SYSTEM

Organization of the Schools

District organization.--The Brown County organization includes the Brown County School District and the Georgetown Exempted Village School District. Within the Brown County School District there are fourteen local districts. The locations of all these districts are shown in Figure 3. The school district lines along the county line are not in all cases exactly co-terminous with the county line. These variances are minor, however, and are not shown on the maps prepared by the Brown County Department of Education.

School organization.--Typically, the schools are organized on the six-six plan, with six grades in the elementary and six in the high schools. Six of the elementary schools, however, enroll pupils of the first eight grades. These are: Eagle, Green-Sterling, Higginsport, Jackson, Scott, and St. Michael. The locations of all the schools are shown in Figure 3.

Administration of the Schools

Superintendents and boards of education.--There are a superintendent of schools and a board of education for the Georgetown Exempted Village School District and a superintendent and board of education for the Brown County School District. In addition, there are local boards of education with a principal, sometimes called a local superintendent, but legally known as executive head of the local school district, for

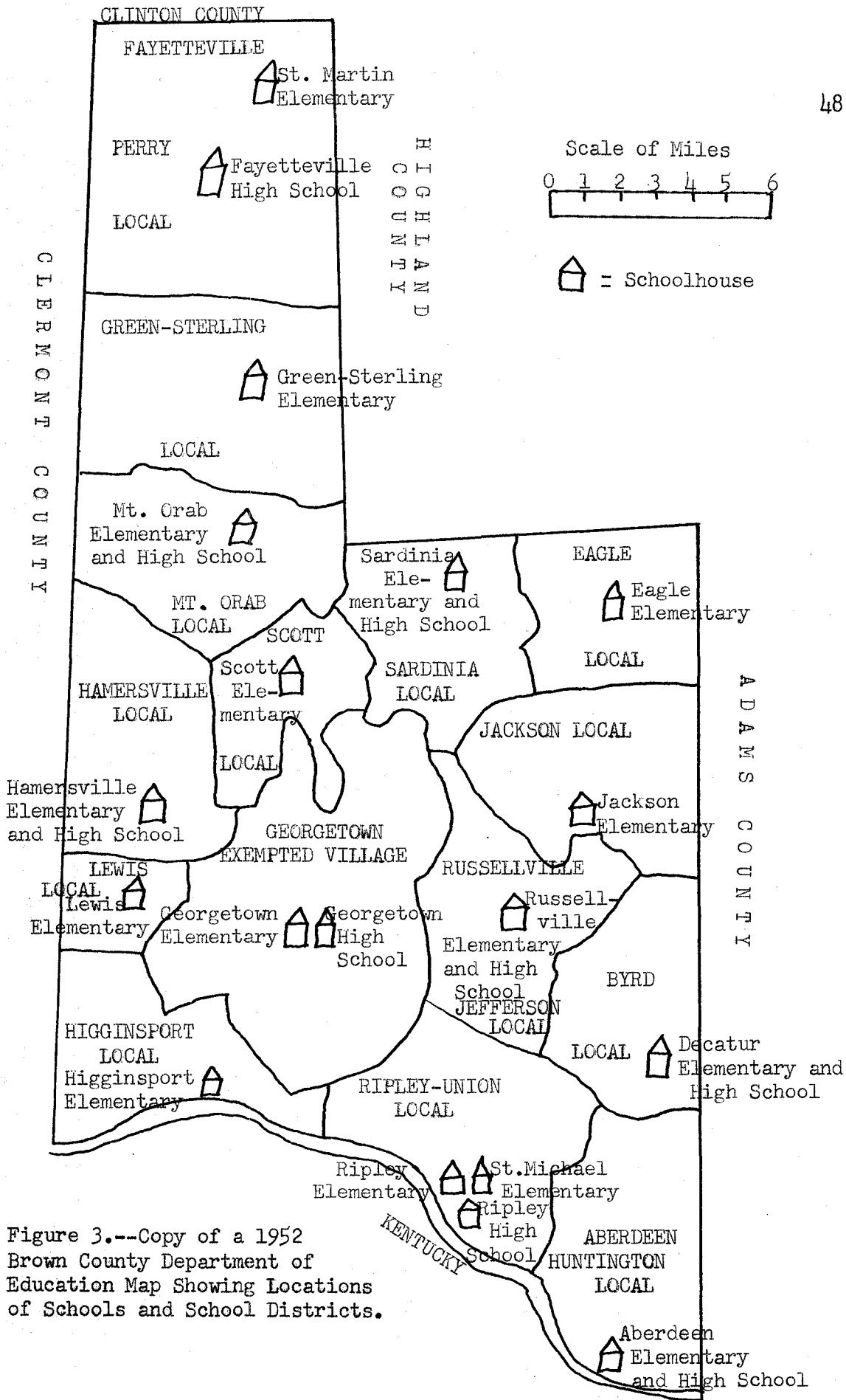


Figure 3.--Copy of a 1952 Brown County Department of Education Map Showing Locations of Schools and School Districts.

each of the fourteen districts under the supervision of the Brown County Board of Education. This makes sixteen boards of education for the county, each board with five members, a total of eighty individuals.

In each of two districts, Fayetteville-Perry and Ripley-Union, there is an elementary school which was at one time operated by the Roman Catholic Church but is now in the public school system. At St. Martin Elementary, which is in the Fayetteville-Perry district, three of the six teachers are Sisters, and at St. Michael, in Ripley, all of the four teachers are Sisters.

School property.---There are nineteen buildings being used for classroom purposes, eighteen owned by the board of education and one leased. These buildings, together with other buildings, sites, and equipment, are valued at \$1,731,679.70, the property of the Brown County School District being valued at \$1,356,429.70,¹ and that of the Georgetown Exempted Village at \$375,250.00.²

Employed personnel.---The employed personnel during the school year 1951-1952 consisted of one hundred and seventy teachers (including ten men who teach agriculture to veterans under provisions of the Veterans Administration), nine secretaries, a part-time attendance officer, twenty custodians, seventy bus drivers (including twelve parent routes), and twenty-six cooks. Fifty-six of the teachers are

¹ Annual Financial Report. Superintendent of Schools, Brown County School District, 1952.

² Annual Financial Report. Superintendent of Schools, Georgetown Exempted Village School District, 1952.

men and one hundred and fourteen are women. The two superintendents hold Master's degrees. Five principals have Master's degrees, while all the others, except one, have Bachelor's degrees. Fourteen of the remaining professional staff hold Master's degrees, and seventy-eight have Bachelor's degrees, while the others have completed varying amounts of training but have not as yet received their degrees. Several of this latter group are working toward their basic degrees, while others do not contemplate the completion of the degree requirements. The number of men and women teachers in each school and in the school system as a whole, except for the veterans training program, is shown in Table 5.

Pupil personnel.--Table 6 shows the number of pupils in each grade of each school in the county as of May, 1952. As schoolhousing requirements are based to a great extent on the number of pupils to be housed, an attempt has been made to predict the enrollments in each grade in the entire county for the next five years. The prediction of school population for more than a year in advance, particularly for a given grade level, is at best precarious. However, when schoolhouses are built, predictions of needs are being made whether it is realized or not. It appears, then, that attempting to predict pupil enrollments by using the best techniques thus far developed³ is far better than not attempting to predict at all. Tables 7 and 8 are the result of this attempt. Predictions for each grade are shown in Table 7, while Table 8

³ American Association of School Administrators, American School Buildings, pp. 50-57. Washington: The Association, 1949. Pp. 5 / 525.

TABLE 5

NUMBER OF MALE AND FEMALE TEACHERS IN EACH OF THE
PUBLIC SCHOOLS IN BROWN COUNTY, 1951-1952

School	Teachers		
	Male	Female	Total
Aberdeen	3.0	10.0	13.0
Decatur	4.2	4.0	8.2
Eagle	1.1	3.0	4.1
Fayetteville	5.5	2.0	7.5
Georgetown Elementary	1.0	12.0	13.0
Georgetown High	5.0	7.0	12.0
Green-Sterling	1.1	3.0	4.1
Hamersville	4.5	8.0	12.5
Higginsport	1.2	7.2	8.4
Jackson	1.1	3.0	4.1
Lewis	0.0	2.0	2.0
Mt. Orab	7.0	9.7	16.7
Ripley Elementary	1.3	7.2	8.5
Ripley High	4.3	5.2	9.5
Russellville	4.4	5.0	9.4
Sardinia	4.0	8.5	12.5
Scott	1.0	3.0	4.0
St. Martin	.5	6.0	6.5
St. Michael	0.0	4.0	4.0
Total	50.2	109.8	160.0

* Fractional teachers are music teachers who work on circuit and spend only part-time in each school.

TABLE 6

THE MAY, 1952, ENROLLMENT OF THE VARIOUS PUBLIC SCHOOLS
OF BROWN COUNTY, OHIO, BY GRADE

School	Grade											Total	
	K	1	2	3	4	5	6	7	8	9	10		11
Aberdeen	25	26	22	34	28	36	35	24	22	20	16	10	298
Decatur	20	16	12	9	18	17	14	14	10	16	9	16	171
Eagle	12	10	11	14	12	13	12	17	--	--	--	--	101
Fayetteville	--	--	--	--	--	--	38	28	39	26	22	10	163
Georgetown Elementary	71	60	75	63	72	58	--	--	--	--	--	--	399
Georgetown High School	--	--	--	--	--	--	57	49	49	31	30	30	246
Green Sterling	29	25	42	37	32	28	27	27	--	--	--	--	247
Hamersville	31	31	43	32	32	22	47	25	25	13	26	23	350
Higginsport	25	22	25	31	21	17	20	21	11	10	3	11	217
Jackson	21	12	12	19	19	22	17	10	--	--	--	--	132
Lewis	10	8	9	10	11	16	--	--	--	--	--	--	64
Mt. Orab	42	43	46	34	35	38	33	28	49	45	32	40	465
Ripley Elementary	42	45	47	53	52	44	--	--	--	--	--	--	317
Ripley High	--	--	--	--	--	--	58	33	40	33	28	22	214
Russellville	23	17	23	27	19	23	27	13	33	27	21	16	269
Sardinia	35	29	28	28	37	30	24	34	27	29	30	23	354
Scott	16	18	10	17	21	14	16	9	--	--	--	--	121
St. Martin	40	33	46	38	33	44	--	--	--	--	--	--	234
St. Michael	8	11	9	17	16	11	15	12	--	--	--	--	99
Total	34	450	406	460	463	458	433	440	344	305	217	201	4461

TABLE 7

PROJECTION OF SCHOOL ENROLLMENT

Year	Births	Enrollment and Percent of Survival in Each Succeeding Grade*											
		Grade 1		Grade 2		Grade 3		Grade 4		Grade 5		Grade 6	
		Number	Percent Survival	Number	Percent Survival	Number	Percent Survival	Number	Percent Survival	Number	Percent Survival	Number	Percent Survival
1932	330	411	124.5	374	86.6	389	97.9	394	96.9	406	99.5	399	94.3
1933	303	401	132.3	356	85.3	366	97.8	377	107.1	392	107.4	383	98.5
1934	293	459	156.7	342	84.1	348	97.9	392	99.7	405	95.2	386	90.6
1935	308	426	138.3	386	86.4	335	102.1	347	109.2	373	106.1	367	96.4
1936	304	395	129.9	368	93.7	394	98.1	366	100.0	368	105.3	356	87.8
1937	277	376	135.7	370	99.7	361	98.6	362	100.3	339	98.9	323	96.1
1938	280	377	134.6	375	99.7	365	102.6	361	99.7	363	101.1	326	102.7
1939	275	427	155.3	376	99.1	385	101.1	366	100.3	380	94.5	373	96.1
1940	297	468	157.6	423	94.0	380	105.0	384	94.8	362	102.6	365	97.2
1941	301	491	163.1	440	97.4	400	92.2	381	101.5	421	95.5	352	93.8
1942	283	530	187.2	478	89.6	462	102.7	412	99.7	391	106.8	395	99.5
1943	219	507	231.5	475	89.7	441	106.8	438	99.9	423	99.9	389	98.5
1944	305	425	139.3	455	97.9	488	99.4	448	99.7	441	99.9	417	97.0**
1945	305	449	147.2	416	99.4	486	99.4	466	99.7	456	99.7	428	96.0
1946	371	558	150.5	446	99.4	416	99.4	485	99.7	474	99.7	438	96.0
1947	487	732	150.5	554	99.4	446	99.9	415	99.7	493	99.7	455	96.0
1948	442	665	150.5	727	99.4	554	99.9	445	99.7	422	101.7	473	96.0
1949	480	722	150.5	661	99.4	727	99.9	552	99.7	453	101.7	405	96.0
1950	377	567	150.5	717	99.4	661	99.9	725	99.7	561	101.7	435	96.0
1951	444	668	150.5	564	99.4	717	99.9	659	99.7	737	101.7	539	96.0

* Enrollments are as of September of each year.

** Enrollments after 1951-52 are estimated.

TABLE 7 (CONTINUED)
PROJECTION OF SCHOOL ENROLLMENT

School Year	Enrollment and Percent of Survival in Each Succeeding Grade *											
	Grade 7		Grade 8		Grade 9		Grade 10		Grade 11		Grade 12	
	Number	Percent Survival	Number	Percent Survival	Number	Percent Survival	Number	Percent Survival	Number	Percent Survival	Number	Percent Survival
1938-39	395		326		361		251		224		201	
1939-40	416	104.2	365	92.4	292	89.6	311	86.1	224	87.6	204	91.1
1940-41	402	104.9	418	100.5	320	87.6	254	87.0	273	87.8	206	91.9
1941-42	379	98.2	346	86.1	338	80.8	273	85.3	206	81.1	239	87.5
1942-43	393	107.1	330	87.1	320	92.5	317	93.8	226	82.7	178	86.4
1943-44	331	92.9	336	85.5	264	80.0	251	78.4	212	66.9	177	78.3
1944-45	344	106.5	309	93.4	272	80.9	210	79.5	199	79.3	183	86.3
1945-46	326	100.0	319	92.7	279	90.3	244	89.7	194	92.4	172	86.4
1946-47	391	104.8	292	89.6	278	87.1	249	89.2	206	84.4	168	86.6
1947-48	403	110.4	337	86.2	264	90.4	239	85.9	215	86.3	166	80.6
1948-49	382	108.5	361	89.6	297	88.1	196	74.2	207	86.6	183	85.1
1949-50	402	101.8	340	89.0	298	82.5	266	89.5	184	93.8	185	89.4
1950-51	402	103.3	368	91.5	308	90.6	265	88.9	240	90.2	176	95.6
1951-52	434	104.0	373	92.8	334	90.8	255	82.8	223	84.1	205	85.4**
1952-53	443	103.6	393	90.5	324	86.9	285	85.6	215	84.5	194	86.9
1953-54	454	103.6	400	90.5	342	86.9	277	85.6	241	84.5	187	86.9
1954-55	471	103.6	410	90.5	347	86.9	293	85.6	234	84.5	209	86.9
1955-56	490	103.6	426	90.5	356	86.9	297	85.6	248	84.5	203	86.9
1956-57	420	103.6	443	90.5	370	86.9	305	85.6	251	84.5	216	86.9
1957-58	450	103.6	380	90.5	385	86.9	317	85.6	258	84.5	216	86.9

* Enrollments are as of September of each year.

** Enrollments after 1951-52 are estimated.

TABLE 8
 PROJECTION OF SCHOOL ENROLLMENT
 FOR CERTAIN GRADE GROUPS *

School Year	Enrollments						
	Grades 1-6	Grades 1-8	Grades 7-9	Grades 7-12	Grades 9-12	Grades 10-12	Grades 1-12
1938-39	2373	3094	1082	1758	1037	676	4131
1939-40	2275	3056	1073	1812	1031	739	4087
1940-41	2332	3152	1140	1873	1053	733	4205
1941-42	2234	2959	1063	1781	1056	718	4015
1942-43	2247	2970	1043	1764	1041	721	4011
1943-44	2131	2798	931	1571	904	640	3702
1944-45	2167	2820	925	1517	864	592	3684
1945-46	2307	2952	924	1534	889	610	3841
1946-47	2382	3027	961	1584	901	623	3966
1947-48	2485	3225	1004	1624	884	620	4109
1948-49	2668	3411	1040	1626	883	586	4294
1949-50	2673	3415	1040	1675	933	635	4348
1950-51	2674	3444	1078	1759	989	681	4433
1951-52	2701	3508	1141	1824	1017	683	4525**
1952-53	2817	3653	1160	1854	1018	694	4671
1953-54	3095	3949	1196	1901	1047	705	4996
1954-55	3286	4167	1228	1964	1083	736	5250
1955-56	3520	4436	1272	2020	1104	748	5540
1956-57	3666	4529	1233	2005	1142	772	5671
1957-58	3884	4714	1215	2006	1176	791	5890

* Enrollments are as of September of each year.

** Enrollments after 1951-52 are estimated.

serves to indicate the enrollment experience and prediction in certain grade groupings.

It is generally agreed that the basic factor in predicting school population is the birth rate. In Table 7 the number of live births to residents of Brown County is shown for the years 1932 through 1951,⁴ and the number of pupils actually in the first grade six years later is indicated for the years 1938-1939 through 1951-1952.⁵ The per cent of survival from one grade to the next is indicated throughout the table. All enrollment figures after the school year 1951-1952 are estimated on the basis of the average survival experience in each grade for the thirteen-year period from 1938-1939 through 1951-1952. These data are a portion of the bases for the recommendations found in Chapter XII.

Pupil transportation.---Pupil transportation is administered and operated within each of the fifteen school districts; consequently, the transportation system is inefficient. If it were conceived and operated as a whole within the county, savings of from twenty-five to over thirty per cent might be effected.⁶ As the cost of pupil transportation for the conveyance of over three thousand of the approximately

⁴ Annual Vital Statistics Reports. Columbus: State of Ohio, Department of Health, 1932 to 1951.

⁵ Monthly Statistical Reports. Principals of the Schools in Brown County, 1938-1952.

⁶ A Study of the Public Schools of Brown County, p. 54. Columbus: U. S. Office of Education and Ohio State Department of Education, 1937.

forty-five hundred pupils is about \$95,000.00 each year, an annual savings of at least \$24,000.00 could be expected if the conclusions set forth in the 1937 study are still applicable. These savings would affect the State of Ohio as a whole, since virtually all of the cost of pupil transportation in Brown County is paid for out of state funds. Because experience showed that board-owned buses were being operated for about two-thirds the cost of contract buses, all school buses in Brown County are now owned and operated by the several boards of education.

Financing the schools.--The Ohio Chamber of Commerce in 1950 published a detailed analysis of state and local support of the public schools in Ohio.⁷ To orient the reader, the report explains the three chief types of state aid, all of which are participated in by the public schools in Brown County:⁸

1. A level amount (the "flat" distribution) in behalf of each pupil in kindergarten, elementary, and high school with the total amount to each district depending upon the number of pupils in each of these classes.

2. The so-called "additional" aid, which is in addition to the flat distribution amounts and which depends upon the amount of taxable property in the district. In many districts, the "additional" aid amounts include State funds for pupil transportation costs.

3. Funds for the payment of tuition in behalf of the district of residence which are actually paid to the district of attendance.

The total current cost of operating the schools in Brown County

⁷ State and Local Support of Public Schools in Ohio. Columbus: Ohio Chamber of Commerce, 1950. 3 / 52.

⁸ Ibid., p. 5.

for the school year 1951-1952 was \$897,961.52. Other expenditures were: capital outlay, \$72,827.17; debt retirement, \$42,868.00; and interest, \$8,672.49. The total bonded indebtedness of all the public schools in the county is \$151,830.00.

Table 9 shows the taxes levied for current operating expenses and for debt retirement, the current tax duplicate for each school district, and the amount of revenue expected to be available as a result of these taxes for 1952 in each school district in Brown County. The total assessed valuation for the county will be revised upward in 1953 to \$27,269,398.00.

Summary

The school system in Brown County is comprised of a county school district and an exempted village school district. In addition, there are fourteen local school districts under the supervision of the county district. Each of these sixteen districts has a board of education, each with five members, making a total of eighty board members. As there are one hundred and sixty teachers, the ratio of board members to teachers is one to two.

Typically, the schools are organized on the six-six plan, with six grades in the elementary and six in the high schools. As school-housing requirements are based to a great extent on the number of pupils to be housed, enrollments were predicted by grade and by grade groups through the school year 1957-1958. The prediction showed for that year an estimated enrollment in grades one through twelve of five thousand eight hundred and ninety. In May, 1952, the enrollment was four thousand four

TABLE 9

SCHOOL PURPOSE TAX RATES IN DOLLARS PER THOUSAND OF ASSESSED VALUATION,
ASSESSED VALUATION, AND REVENUE EXPECTED FOR EACH SCHOOL DISTRICT IN BROWN
COUNTY, OHIO, 1952

School District	Tax For Current Operation	Tax For Debt Retirement	Total Tax For School Purposes	Assessed Valuation	Yield For Current Operation	Yield For Debt Retirement
Aberdeen	10.00	3.40	13.40	\$1,129,893	\$11,298.93	\$3,841.63
Decatur	10.80	3.10	13.90	823,574	8,894.59	2,553.07
Eagle	9.00	1.60	10.60	1,026,458	9,058.12	1,610.33
Fayetteville	11.00	1.80	12.80	1,828,909	20,117.99	3,292.03
Georgetown	10.10	1.20	11.30	3,991,641	40,315.57	4,789.96
Green-Sterling	9.50	1.30	10.80	1,263,452	12,002.79	1,642.48
Hamersville	8.00	1.90	9.00	1,370,436	10,963.48	1,370.43
Higginsport	12.00	1.50	13.50	968,061	11,616.73	1,452.09
Jackson	8.00	1.00	9.00	873,881	6,991.04	873.88
Lewis	12.00	0.00	12.00	428,732	5,144.78	0.00
Mt. Orab	13.00	0.00	13.00	2,163,871	28,130.32	0.00
Ripley	11.00	0.80	11.80	2,680,245	29,482.69	2,144.19
Russellville	8.00	0.90	8.90	1,503,572	12,028.57	1,353.21
Sardinia	11.50	1.00	12.50	1,974,442	22,706.08	1,974.44
Scott	9.00	1.90	10.90	535,974	4,823.76	1,018.35
TOTALS				\$22,603,141	\$233,575.44	\$27,916.09

hundred and twenty-seven. Schoolhouse planning must reflect the predicted enrollment increase.

There are nineteen school buildings being used for classroom purposes. These buildings, together with other school properties, are valued at \$1,731,679.70.

The employed personnel during the school year 1951-1952 consisted of one hundred and seventy teachers, nine secretaries, a part-time attendance officer, twenty custodians, seventy bus drivers, and twenty-six cooks.

Pupil transportation is administered and operated within each of the school districts; consequently, the transportation system is inefficient. If it were operated as a whole within the county, savings of about twenty-five per cent might be effected. All of the buses are board owned.

The total current cost of operating the schools in Brown County for the school year 1951-1952 was \$897,961.52. Other expenditures were: capital outlay, \$72,827.17; debt retirement, \$42,868.00; and interest, \$8,672.49. The total bonded indebtedness for that year for all the schools in the county was \$151,830.00.

CHAPTER V

PROJECTION OF THE EDUCATIONAL PROGRAM

Schoolhouses cannot be planned intelligently until the scope of the educational program and ^{the} instructional methodology have been carefully considered; and they must be considered in the light of a sound philosophy of the aims and purposes of education. Aims and purposes are not easy to define in a dynamic ever-changing society; yet the purpose of a schoolhouse is to provide at least part of the physical setting for the educational program of that society.

Although there is much to be done in improving education in Brown County, it is encouraging to note that the educational leaders of the county have taken steps to improve instruction. The supervising principals, in groups and individually, have been studying the elementary¹ and high school² standards developed and published by the State Department of Education. In turn, they have been holding meetings with the teachers to discuss these standards. The principal and teachers in at least one elementary school have evaluated their complete program and facilities, after having written co-operatively the aims and objectives as well as the philosophy of their school. They feel that evaluation

¹ State Department of Education, Ohio Elementary School Standards.
Columbus: The Department, 1949. Pp. 5 / 120.

² State Department of Education, Ohio High School Standards.
Columbus: The Department, 1949. Pp. 3 / 111.

must be continuous, and meetings are held from time to time for various group-planning experiences. It is expected that most of the other schools will soon follow this example to the end that all teachers will be equipped to participate more wisely in planning-groups of all kinds, including those related to the improvement of schoolhousing.

Education in Brown County may be considered to be organized on three levels, elementary, secondary, and adult. In most cases the elementary level consists of six grades, but in five schools it consists of eight grades. All of the nine high schools have six grades. Most of the adult education is planned for the two hundred and ten veterans of World War II who are receiving training in agriculture under provisions of the Veterans Administration. There is, however, a limited program for adult women in the area of vocational home economics.

In regard to these three levels of education, The National Council of Chief State School Officers recently made the following statements which are more fully presented in Appendix B:³

1. Adequate elementary and secondary education is fundamental in our society.
2. The scope of elementary and secondary education should be extended.
3. Adult education is imperative in our rapidly changing society.

³ The National Council of Chief State School Officers, Our System of Education, pp. 7-14. Washington: The Council, 1950.

Elementary Education in Brown County

A recent report⁴ of the Educational Policies Commission of the National Education Association proposes that an adequate program of education should help children face and solve their problems with self-reliance and initiative, teach them to have concern for the common welfare of all, and enable them to develop into individuals who participate intelligently in the solution of problems of democratic living. To achieve these goals of modern elementary education, the program of instruction must provide experiences which enable children to develop the skills and proficiencies required for successful democratic living. It is questionable whether this can be accomplished when the educational program is subject-matter, rather than child, centered. Because of the professional leadership in the elementary schools of Brown County, there are noticeable trends toward interest in child development--interest in the development of the whole child. To help implement programs that will further this interest, larger classrooms should be provided, in many cases the number of children assigned to a teacher should be sharply reduced, and all the elementary schools should be large enough so that there will be enough pupils to have at least one teacher for each grade.

From time to time the teachers hold workshops in which professional specialists help them to understand better teaching methods in certain experience areas such as reading, numbers, and language arts. In recent years an elementary supervisor from the State Department of Education

⁴ The Educational Policies Commission, Education for All American Children, pp. 2-4. Washington: The Commission, 1948. Pp. vii / 292.

has spent one week in Brown County each year working with most of the elementary teachers in their classrooms, as well as in groups after school. Although several teachers did not respond favorably to her supervision, it was generally felt that much good was accomplished. A full-time supervisor has now been employed to work with all the elementary schools in the county school system.

In most of the elementary classrooms in Brown County, the desks and seats are fastened to the floor, preventing the flexibility needed in an experience program. This is contrary to the following modern philosophy stated in the state standards recently developed for elementary schools:⁵

The teacher should arrange the classroom furniture so as to provide the maximum amount of free floor space consistent with good house-keeping procedure and fire and safety regulations. Children must have room to move about freely. The teacher must have proper space in which to provide the work centers which will afford the maximum number of experiences which are desirable for the children. There must be adequate space for all sorts of necessary activities and projects. Chairs, desks, and tables should be movable since children will frequently need to group desks or chairs for small compact groups.

Another gross deficiency in the Brown County districts is the lack of adequate outdoor activities in most of the schools. In several cases this could be attributed to the very small sites, but in others, the area provided is not well utilized.

Public education at the nursery level has not yet been provided. A kindergarten program was started in Ripley in September, 1951. It is

5

Ohio Elementary School Standards, op. cit., p. 39.

anticipated that other kindergarten classes will be organized within the next few years, especially in the larger villages. In fact, Mt. Orab and Sardinia opened kindergarten classes in September, 1952.

Secondary Education in Brown County

Education in Ohio is partly defined by law. Section 4837⁶ states that boards of education of county, exempted village, and city school districts shall prescribe a graded course of study for all schools under their control, subject to the approval of the Superintendent of Public Instruction. In such graded course of study there may be included the following subjects: health and physical education, including instruction in the harmful effects of narcotics and alcoholic beverages; first-aid, safety, and fire prevention; the history of the United States and the State of Ohio, including a study of the Constitution of the United States and the State of Ohio; the language arts, including reading, spelling, oral and written English, and literature; mathematics; natural science, including instruction in conservation of our natural resources; and the fine arts, including vocal and instrumental music. Every high school shall include in the requirements for graduation from any curriculum one unit of American history and government. Actually, then, there is a great deal of freedom for curriculum construction as far as laws in Ohio are concerned. The responsibility for creating a meaningful educational program in the schools lies largely with the superintendents of the county, exempted village, and city districts, as well as with the

⁶ Ohio General Code, Section 4837.

Superintendent of Public Instruction.

Permissive legislation⁷ further provides that boards of education may establish and maintain manual training, industrial arts, home economics, and commercial departments, and agriculture, industrial, vocational, and trade schools. Legislation⁸ regarding the educational program of secondary schools includes the act by which Ohio accepted the provisions of the Smith-Hughes Law respecting the teaching of vocational subjects, specifically agriculture, trades, home economics, and industries.

In spite of these provisions, secondary education in Brown County continues, in most cases, to be subject-matter centered and rather limited in scope. Although the county is predominantly rural, there is no program of vocational agriculture for the in-school youth, nor are there other vocational programs, except vocational home economics at the Aberdeen, Hamersville, and Ripley schools. All of the high schools, however, do offer work in industrial arts education and certain secretarial and business subjects such as business arithmetic, typing, and, in several cases, shorthand.

Eight of the nine high schools have the school day divided into eight periods of approximately forty-five minutes each. One school, Fayetteville, has been experimenting with the sixty-minute period, six

⁷ Ohio General Code, Section 4836-4.

⁸ Ohio General Code, Section 154-49a.

periods in the day. Instead of spending so much time in study halls with teachers who may not understand their problems, the pupils at Fayetteville use part of the sixty-minute period for study under the supervision of the teachers who are better acquainted with their subject-matter problems. Freedom for experimentation of this kind should be encouraged. It might be well for at least one school to try the core curriculum. Both the sixty-minute period and the core program permit greater utilization of the school facilities. However, many educators agree that the hour periods still lend themselves most conveniently to a subject-matter centered program, while the core curriculum encourages life-adjustment education.

Group planning for the improvement of secondary education in Brown County should be encouraged, especially in regard to a reduction in the number of schools, for it is doubtful if the offerings can ever be adequate as long as nine small ineffective high schools are maintained. Actually, there should be no more than three high schools, and perhaps the educational advantages of one high school should be explored. The possibility of establishing a community college in the near future might well be included in this exploration. Regardless of the findings, it must be remembered that all youth have certain educational needs, many of which are not now being met adequately not only in Brown County but in many schools throughout the nation. Youth have specific needs they recognize; society makes certain requirements of all youth; together these form a pattern of common educational needs, which may be expressed

as follows:⁹

1. All youth need to develop salable skills.
2. All youth need to develop and maintain good health and physical fitness.
3. All youth need to understand the rights and duties of a citizen of a democratic society.
4. All youth need to understand the significance of the family for the individual and society.
5. All youth need to know how to purchase and use goods and services intelligently.
6. All youth need to understand the influence of science on human life.
7. All youth need an appreciation of literature, art, music, and nature.
8. All youth need to be able to use their leisure time well and to budget it wisely.
9. All youth need to develop respect for other persons.
10. All youth need to grow in their ability to think rationally.

Adult Education in Brown County

The program of adult education is largely for veterans of World War II who are receiving "on the farm" training under provisions of the Veterans Administration. During the school year 1951-52, two hundred and ten men were enrolled in ten classes in four centers. Each class meets two nights a week in a public school building. In addition to this program for veterans, a small number of women participate in the vocational home economics program at Ripley.

Planning Ahead

While, at this time, planning for the improvement of education at all levels is in the early stages, conferences with administrative,

⁹ National Association of Secondary School Principals, Planning for American Youth, p. 10. Washington: The Association, 1944. Pp. 1 / 61.

supervisory, and teaching personnel disclosed that definite improvements are in progress. All the elementary schools are to be extended downward to include kindergarten programs, and some of them will be extended upward to include the seventh and eighth grades. It is planned, too, that the kindergarten-primary level in each elementary school will be ungraded, and that pupils will progress through this program without going from grade to grade. After completion of this "primary school," the pupils will be promoted to the fourth grade and will continue through a graded course of study. Offerings to the seventh and eighth grade pupils are to include more practical subjects such as manual arts, home economics, and introductory work in agriculture. These programs are being offered for the first time at this level in Brown County to the seventh and eighth grade pupils in the Higginsport school during the school year 1952-1953. More emphasis will be given to the areas of music, art, dramatics, and physical and health education.

At the secondary level, which will include grades nine through twelve, plans are being made to offer programs in vocational agriculture, vocational home economics, diversified occupations, and business education. All of these programs will be open to out-of-school youth and to adults. In addition to these opportunities in vocational education, the college preparatory courses will continue to be available, and more adequate courses will be offered in the arts, physical and health education, and in various leisure-time activities which will enrich living in Brown County.

Community college education is in the discussion stage. In fact, one four-year college has been contacted and asked to explore the

possibility of assuming responsibility for these two years of training beyond grade twelve. Students completing the two-year program would be awarded an appropriate degree by the four-year college.

All of these proposals for improving education in Brown County must be carefully considered in the planning of public schoolhousing. Additional proposals may emerge while local lay and professional people are working together to improve education in Brown County.

Summary

Schoolhouses cannot be planned intelligently until the scope of the educational program and instructional methodology have been carefully considered; and they must be considered in the light of a sound philosophy of the aims and purposes of education. These aims and purposes are not easy to define in a dynamic ever-changing society; yet the purpose of a schoolhouse is to provide at least part of the physical setting for the educational program of that society.

Because of the professional leadership in the elementary schools of Brown County, there are noticeable trends toward interest in child development--interest in the whole child. To help implement programs that will further this interest, larger classrooms should be provided, in many cases the number of children assigned to a teacher should be sharply reduced, and all the elementary schools should be large enough so that there will be enough pupils to have at least one teacher for each grade.

Secondary education in Brown County continues, in most cases, to be subject-matter centered and rather limited in scope. Although the

county is predominantly rural, there is no program of vocational agriculture for the in-school youth, nor are there other vocational programs, except vocational home economics at the Aberdeen, Hamersville, and Ripley Schools. All of the high schools, however, do offer work in industrial arts education and certain secretarial and business subjects. It is doubtful if the educational offerings can ever be adequate as long as small ineffective high schools are maintained.

The program of adult education is largely for veterans of World War II who are receiving "on the farm" training under provisions of the Veterans Administration. During the school year 1951-1952, two hundred and ten men were enrolled in ten classes in four centers. In addition to this program for veterans, a small number of women participate in the vocational home economics program at Ripley.

Administrators, supervisors, and teachers in Brown County are planning ahead. They feel that within a few years all the elementary schools will have been extended downward to include kindergarten, and that most of the elementary schools will include the seventh and eighth grades with programs in manual arts, home economics, and agriculture. At the secondary level they hope to be able soon to offer vocational agriculture, vocational home economics, diversified occupations, and business education. These programs would be available to out-of-school youth and to adults. Consideration is being given also to proposals for education at the community-college level.

CHAPTER VI

EDUCATIONAL ADEQUACY OF PRESENT SITES

Each school site in Brown County was evaluated according to the criteria of the Guide for Evaluating School Buildings described in Chapter II. These criteria are listed in Appendix C. Table 10 shows the possible score in each category of the site evaluation, the possible total score, and the scores allotted to each of the nineteen school sites. The score for each school in each category was arrived at by making deductions, if appropriate, from the possible score. At the time of the site evaluation, the deductions were made, and the reasons for the deductions were written in the spaces provided for that purpose. Table 11 shows the interpretation of these scores, and Table 12 shows the size of each site and the May, 1952, enrollment of each of the nineteen schools. The evaluations of the sites follow in the alphabetical order of the schools:

Aberdeen

Although Aberdeen School is readily accessible to the pupils served, its location in other respects leaves much to be desired. The building fronts on much-traveled U. S. Highway 52, and it is necessary for some of the pupils to cross that highway in reaching the school. There is an added disadvantage in the fact that the site is lower than the highway. The school is located near service businesses in an area where there has been little attempt at beautification and where there is considerable noise from traffic.

TABLE 10

SCORES ALLOTTED TO EACH SCHOOL IN THE SITE EVALUATION

Name of School	Score in Each Category of Site Evaluation							
	Accessibility	Environment	Size	Form	Elevation	Nature of Soil and Drainage	Improvements Arrangements Landscaping	Total
(Highest Possible Score)	15	15	35	10	10	10	25	120
Aberdeen	12	5	0	0	6	2	0	25
Decatur	15	15	7	0	10	10	0	57
Eagle	15	15	7	2	10	10	0	59
Fayetteville	15	15	7	0	10	10	2	59
Georgetown Elementary	15	15	0	0	10	10	0	50
Georgetown High	12	15	0	0	10	10	0	57
Green-Sterling	15	15	21	10	10	10	7	88
Hamersville	15	12	7	2	10	10	0	56
Higginsport	13	12	7	0	2	2	0	36
Jackson	15	14	7	4	6	6	6	58
Lewis	10	11	7	2	10	10	0	50
Mt. Orab	15	15	14	4	8	7	0	63
Ripley Elementary	11	2	0	0	10	5	0	28
Ripley High	15	15	14	6	10	10	7	77
Russellville	15	15	7	0	10	9	0	56
Sardinia	15	15	7	0	10	4	0	51
Scott	11	15	7	2	10	10	0	55
St. Martin	13	15	7	2	8	3	0	48
St. Michael	7	3	0	0	0	5	0	15

TABLE 11
INTERPRETATION OF SCORES IN THE SITE EVALUATION

Score Interpretation	Category of Site Evaluation							Total
	Accessibility	Environment	Size	Form	Elevation	Nature of Soil and Drainage	Improvements Arrangements Landscaping	
Maximum Possible Score	15	15	35	10	10	10	25	120
Excellent	13.5	13.5	31.5	9	9	9	22.5	108
Satisfactory	10.5	10.5	24.5	7	7	7	17.5	84
Sub-satisfactory	9	9	21	6	6	6	15	72
Borderline	7.5	7.5	17.5	5	5	5	12.5	60
Generally Poor	6	6	14	4	4	4	10	48
Very Poor	4.5	4.5	10.5	3	3	3	7.5	36
Inadequate	3	3	7	2	2	2	5	24
Obsolete	1.5	1.5	3.5	1	1	1	2.5	12
Thoroughly Unsuitable	0	0	0	0	0	0	0	0

TABLE 12

PUPIL ENROLLMENT AND SIZE OF SITES OF THE
PUBLIC SCHOOLS IN BROWN COUNTY, OHIO, MAY, 1952

School	Grades Housed	Enrollment	Area in Acres
Aberdeen	1-12	298	1
Decatur	1-12	171	4
Eagle	1-8	101	3
Fayetteville	7-12	163	3
Georgetown Elementary	1-6	399	0.5
Georgetown High	7-12	246	0.5
Green-Sterling	1-8	247	9
Hamersville	1-12	350	5
Higginsport	1-12	217	2.5
Jackson	1-8	132	3
Lewis	1-6	54	5
Mt. Orab	1-12	591	8
Ripley Elementary	1-6	317	0.5
Ripley High	7-12	214	8
Russellville	1-12	269	3.5
Sardinia	1-12	354	2.5
Scott	1-8	121	4
St. Martin	1-6	234	0.5*
St. Michael	1-8	99	0.4

* Has use of adjoining Church site, also.

The one-acre site of the Aberdeen school is very inadequate for any public school and is markedly so for a combined elementary and high school of approximately 350 enrollment. As the site is not expansible, consideration should be given to acquiring additional land within reasonable walking distance from the school, so that playgrounds and athletic fields may be provided. Figure 4 shows the present site and adjoining areas.

The limited amount of ground surrounding the school has not been well developed. Playground equipment is inadequate, driveways are lacking, and there is no parking space. Although the soil on most of the site is not of the type which will support turf, and although there are indications of poor drainage, attempts have been made to beautify the area in front of the building with shrubs and lawn.

Decatur

The site of the Decatur School, illustrated in Figure 5, is quite accessible, being located on State Highway 125 on the western edge of the village. The environment is excellent, consisting of residential and farming areas. There is little or no annoyance because of noise, smoke, or odors.

The size of the site is very inadequate, comprising a rectangular area of only four acres. This would not be large enough if used only by elementary pupils, yet it is now being used by both elementary and high school pupils. The elevation is satisfactory and the site appears to be properly drained. The front part of the site, the area between

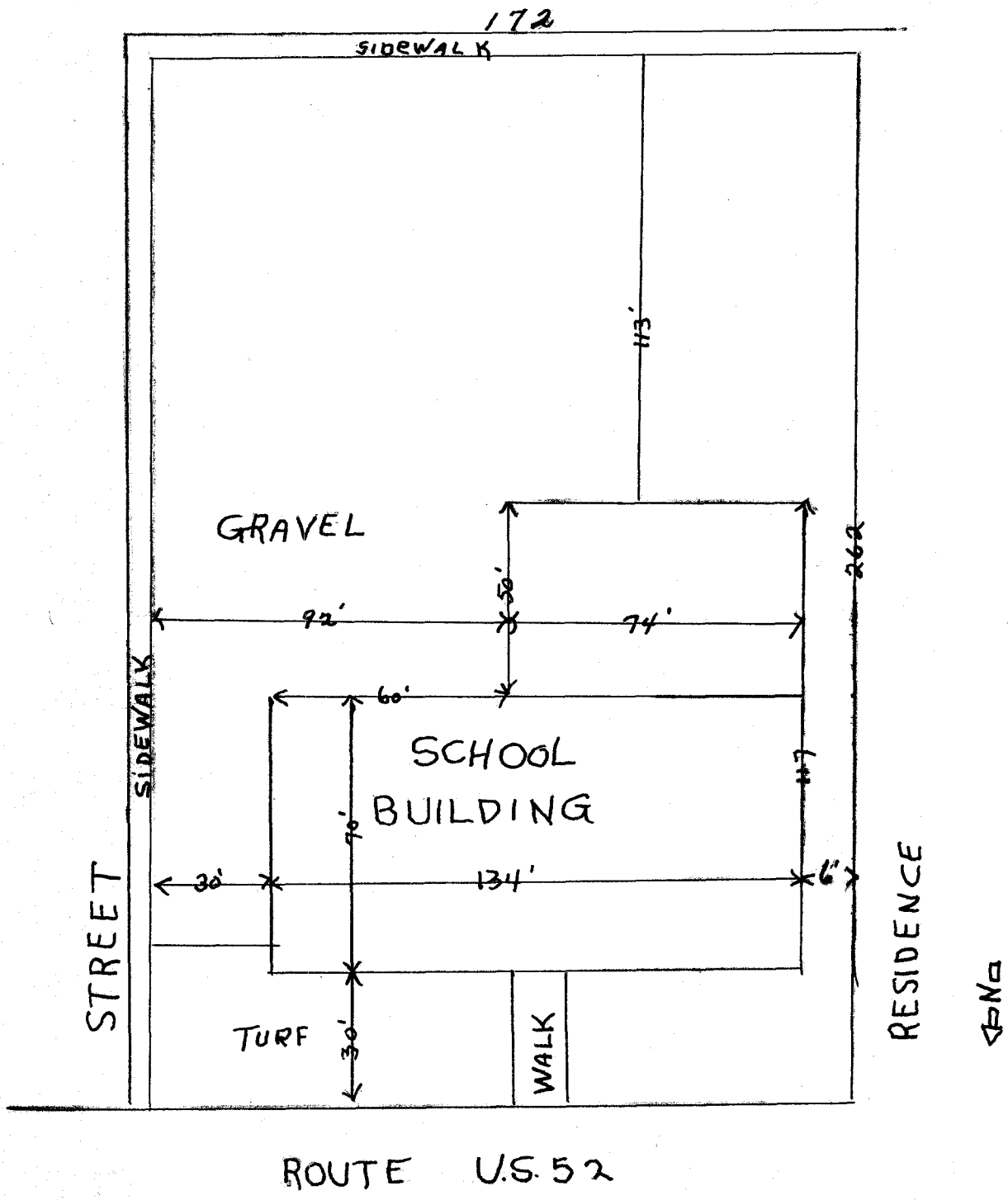


Figure 4
Sketch of the Site of the Aberdeen School

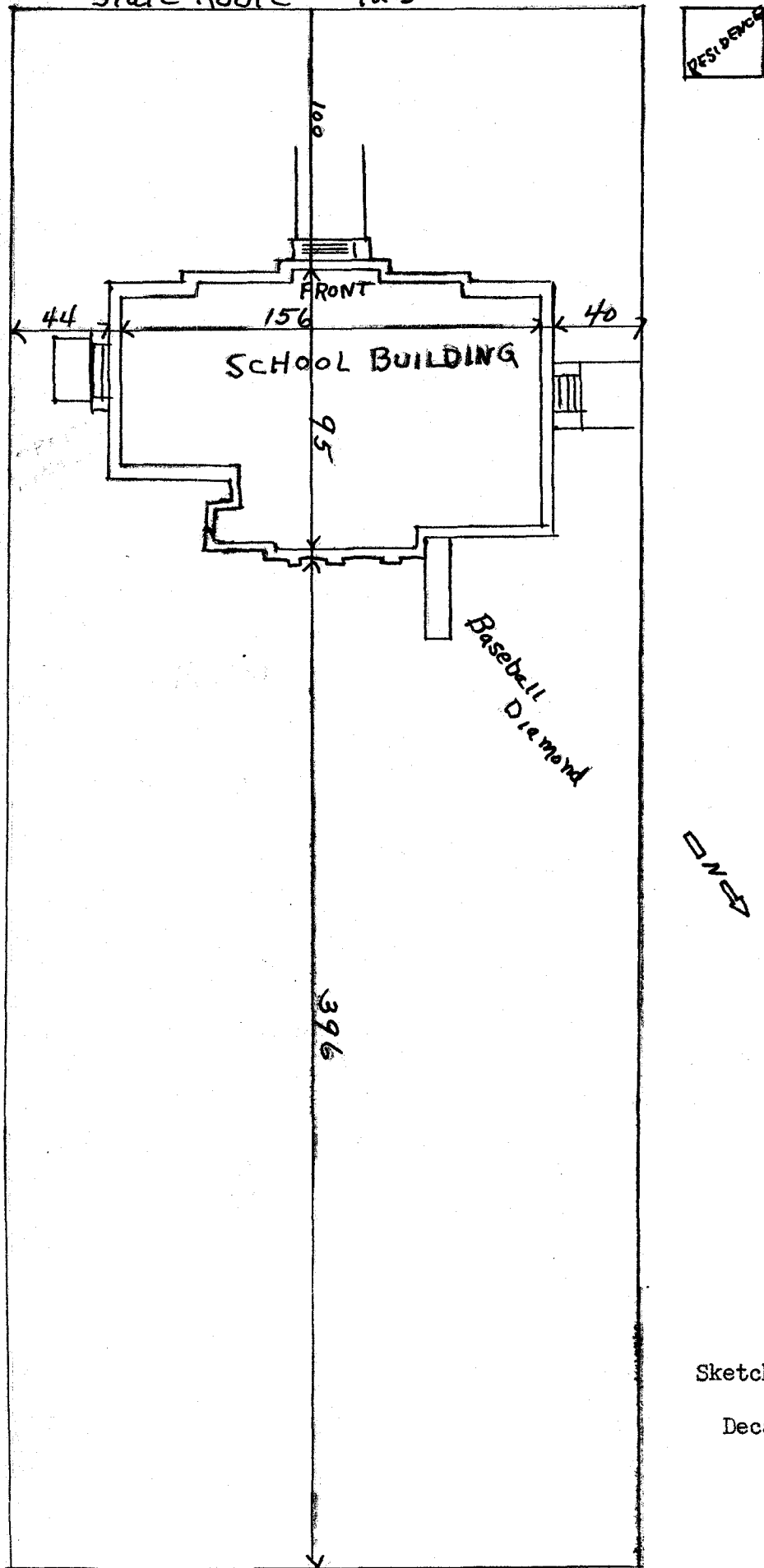


Figure 5
Sketch of the Site
of the
Decatur School

the building and the highway, supports good turf and a number of well-arranged shrubs. The area to the rear of the building needs further development.

On such a small site it would be difficult, if not impossible, to have adequate areas and facilities devoted to playground and athletic activities. There is, however, practically no development of the area now in the site. Better parking space should be provided for teachers and for the public using the school as, at present, automobiles must be parked on the edges of the metal-surfaced (crushed rock) drives and sometimes driven through areas where children play.

Eagle

The site of the Eagle School, pleasantly situated in Fincastle on U. S. 62, is near the center of the area it serves and is easily reached by mechanized transportation. The environment is residential and rural farm, and the general area has the appearance of being fairly well maintained. At times there are disturbing noises from trucks on the highway.

The three-acre rectangular site, illustrated in Figure 6, is too small for a well-developed program of playground activities for the elementary pupils who attend school here, and part of this site is used for a water-supply reservoir and for a cesspool.

The elevation of the site is excellent, permitting proper drainage of all areas. The soil, except a graveled parking and play area, supports good turf, and the front of the site is shrubbed.

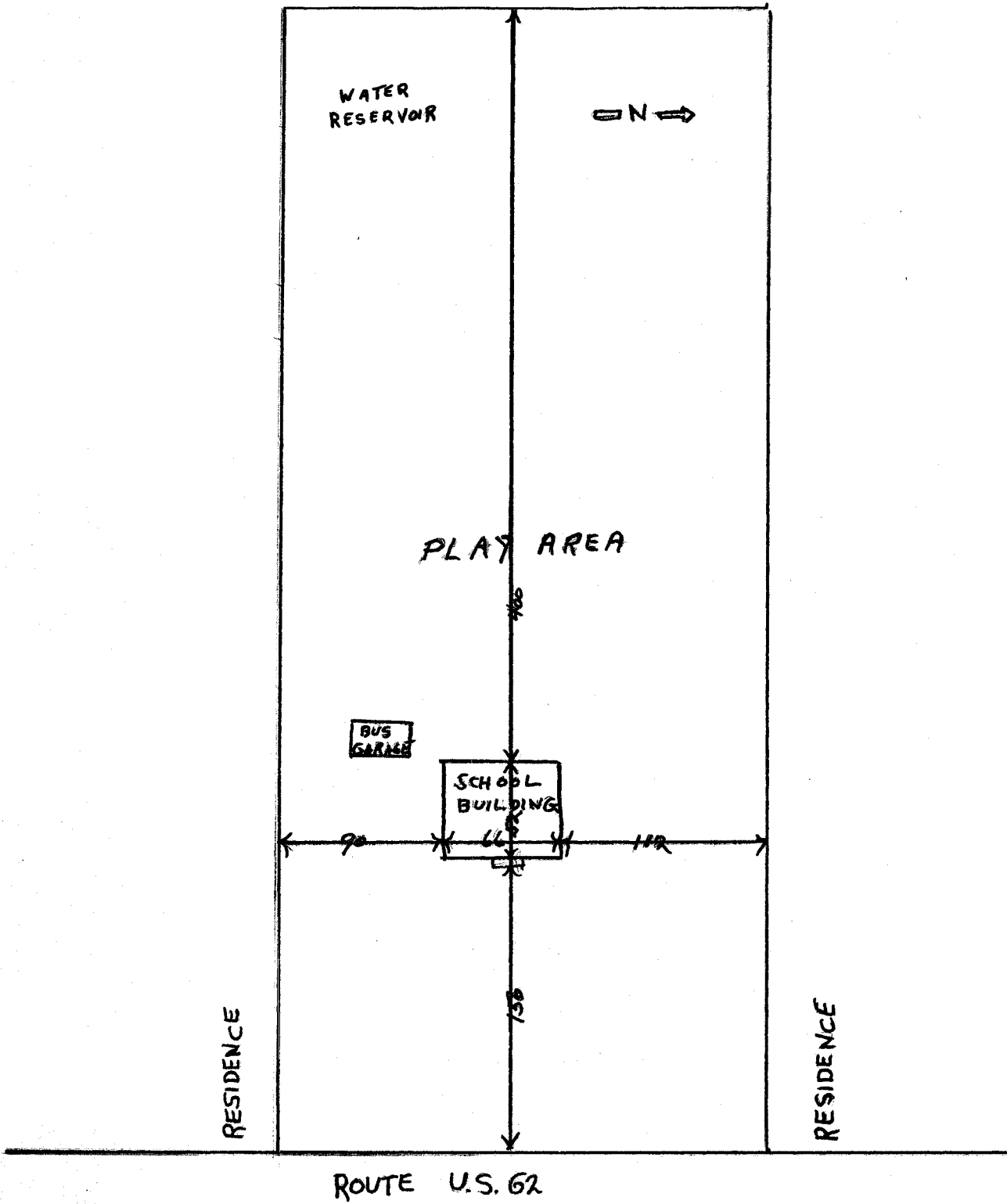


Figure 6

Sketch of the Site of the Eagle School

This site is too small for provision of adequate playground facilities, but even the space provided is not well developed. The water-supply reservoir and the cesspool at the rear of the site should be fenced. The parking area is metal surfaced rather than paved and is often used for play by the pupils.

Fayetteville

Fayetteville High School, located one block off U. S. 50 on the edge of the village, is readily accessible to the district served, yet is well away from the noise and dangers of heavy traffic. Residential and farming areas surround the building, creating a quiet environment free from smoke and odors.

The three-acre site, shown in Figure 7, is rectangular but much too small to provide space for all the facilities that should surround a modern high school. The existing area is not well utilized, playgrounds are inadequate, and the athletic field is poorly developed. No parking space is provided on the site itself, the only available parking area being on either side of the adjoining street.

Elevation and drainage are satisfactory, and the greater part of the site is turf covered. The front of the site has been pleasingly landscaped.

Georgetown Elementary

Located in a residential section of the village, this school is readily reached by hard-surfaced streets and walks. As shown in Figure 8, two streets border the site, but neither is a high-traffic highway.

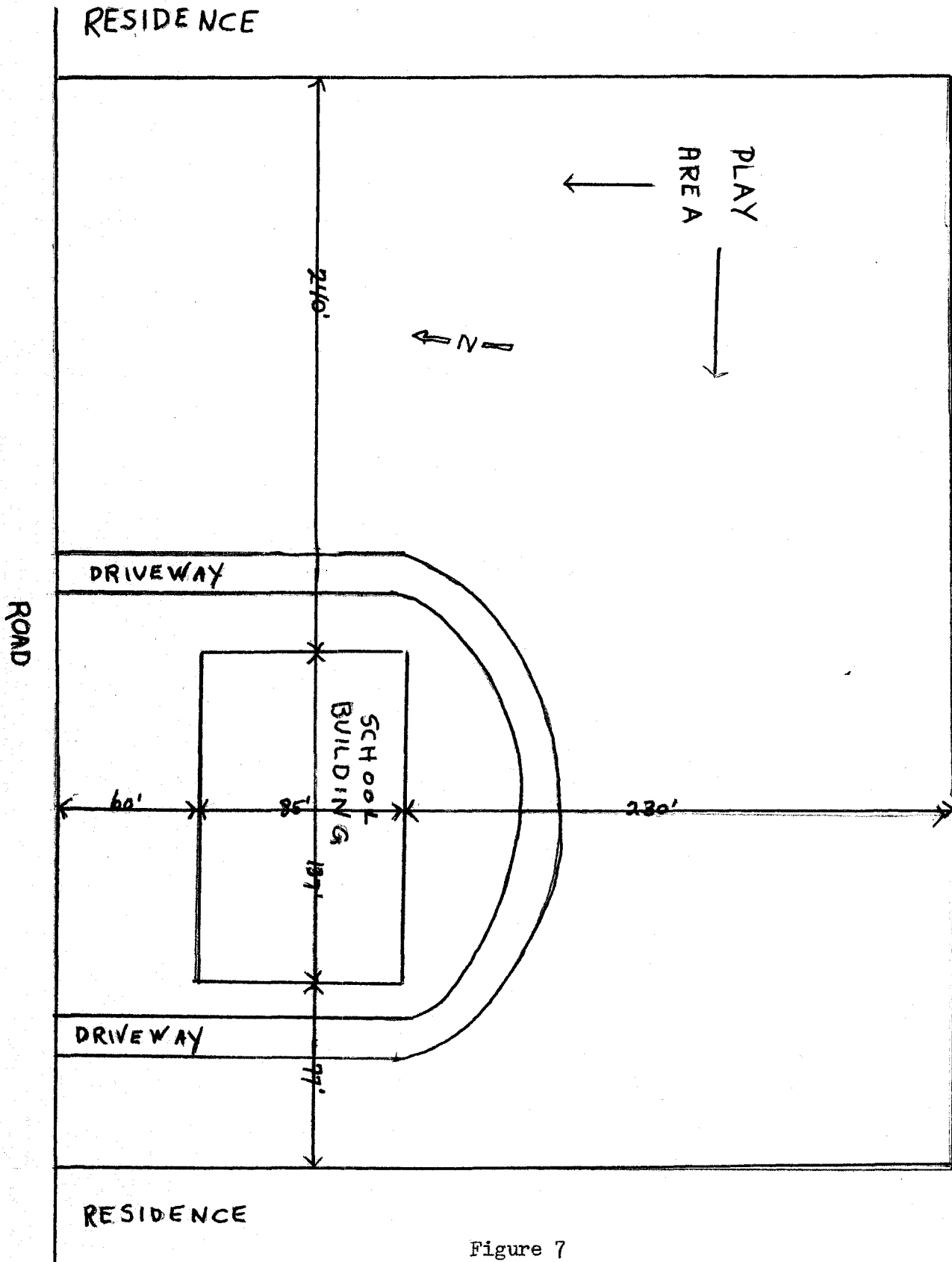


Figure 7

Sketch of the Site of the Fayetteville School

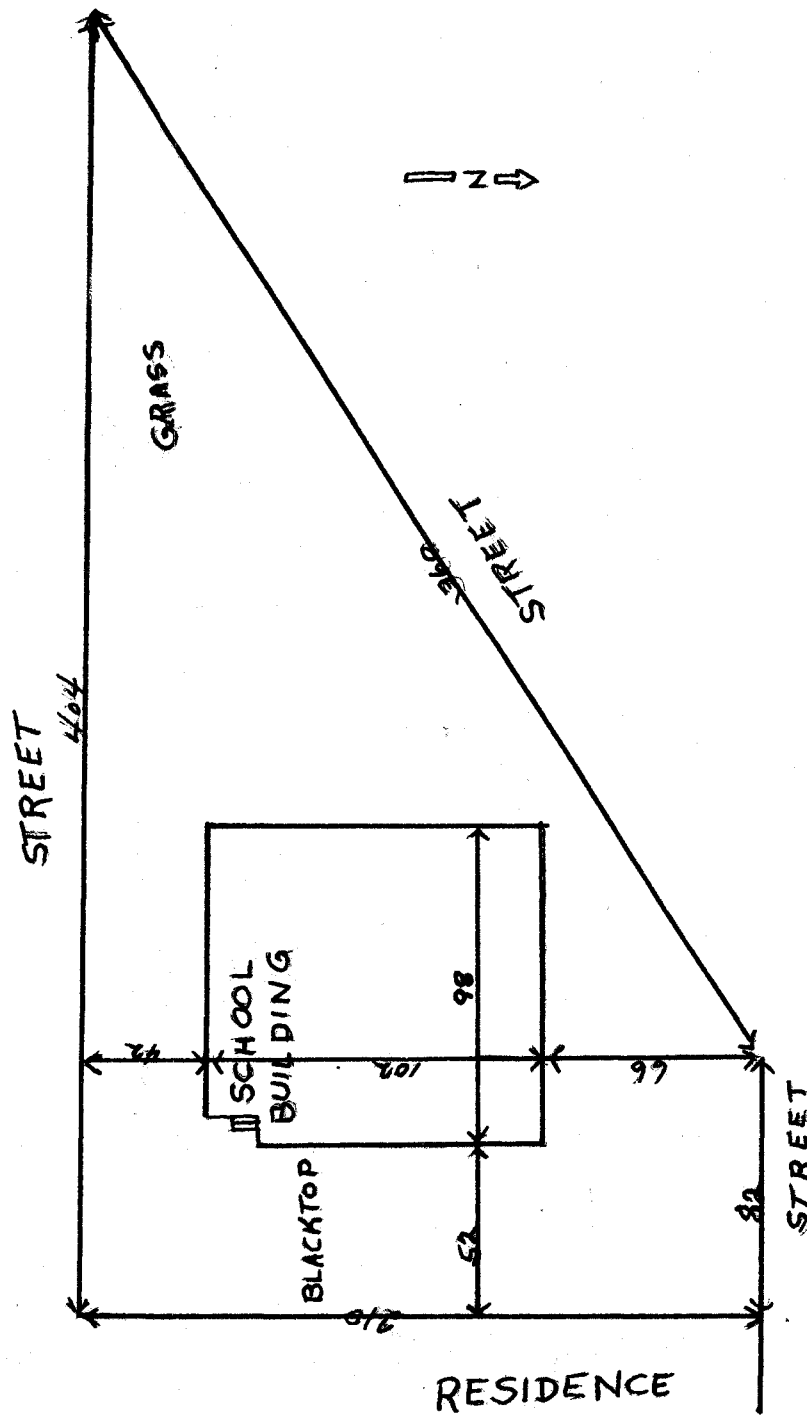


Figure 8

Sketch of the Site of the Georgetown Elementary School

The triangular one-half-acre area is most inadequate for school purposes, even if it all could be utilized. Part of it, however, is so sloping that it cannot be used by the pupils. Because of these slopes, which are landscaped, the site is well drained. On such a limited space it would be impossible to provide proper facilities for play and athletic activities. The space available, which is blacktopped, is well utilized and furnished with play equipment. Automobiles cannot be parked on the site without using play space; therefore, they are usually parked on the adjacent streets.

Realizing the inadequacy of this site, the people of the Georgetown Exempted Village School District, through their Board of Education, have purchased a twelve-acre site on which they had expected to build a new elementary school. Recent developments, however, indicate that an extension of one of the village streets is to go through this site making it useless for school purposes. Undoubtedly, lots can be sold and the board of education might realize a profit on its investment, making possible the purchase of a more suitable location.

Georgetown High

The location of this school makes it easily accessible by using either walks or hard-surfaced streets. It does, however, border State Highway 125 on one side. Figure 9 shows that the building is quite close to the three streets that border the site, creating a traffic hazard, especially since route 125 is rather heavily traveled at times. The school is removed from the business district and is surrounded by

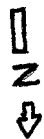
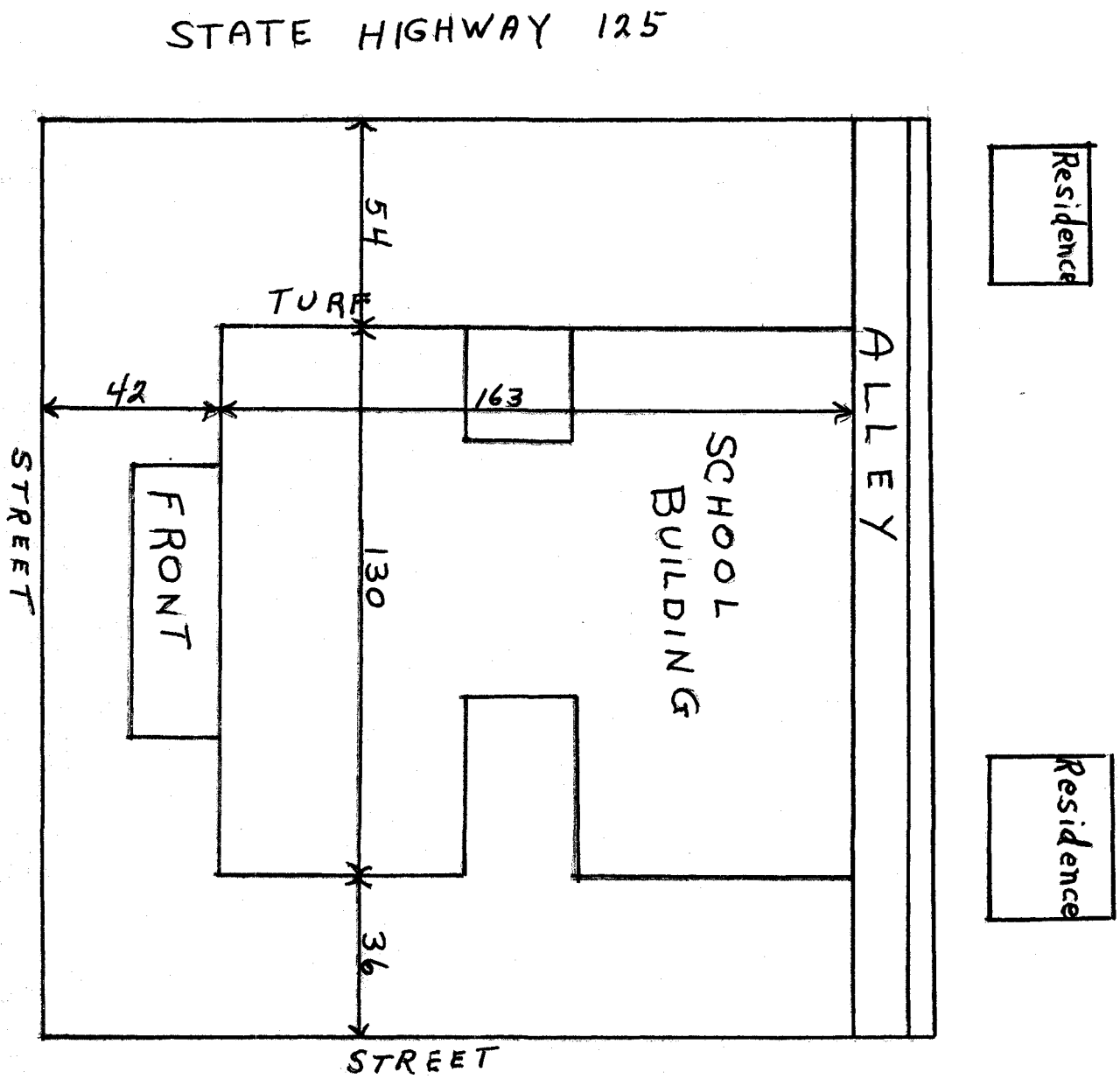


Figure 9

Sketch of the Site of the Georgetown High School

residences which are fairly well maintained. There is little disturbance from noise, smoke, and odors, except from trucks passing near the school.

The size of the site typifies the proverbial "postage stamp" school site, its area being not much more than that of the building erected on it; however, the small space around the building supports good turf, is planted with shrubs, and is well drained. On such a small site it is impossible to develop playgrounds and athletic fields. Realizing this, the Board of Education has purchased a twelve-acre site for a new elementary school and is planning to use part of that site for high school purposes. As noted under "Georgetown Elementary" this twelve-acre site has become, since its purchase, virtually useless for the intended purposes.

Parking space on the present site does not exist, making it necessary for teachers and others to park in the narrow streets.

Green-Sterling

The site of this eight-year elementary school is well located on U. S. Highway 68, easily accessible to the predominantly rural area served. The building itself is set back about two hundred feet from the highway, thus insuring freedom from noise and traffic hazards. The homes and farms surrounding the school provide a pleasant atmosphere.

While the size of the nine-acre rectangular site, sketched in Figure 10, is quite adequate, it should be somewhat larger to be really excellent, especially since a part of the area is devoted to a reservoir and a sewage-disposal system. Elevation, soil, and drainage are

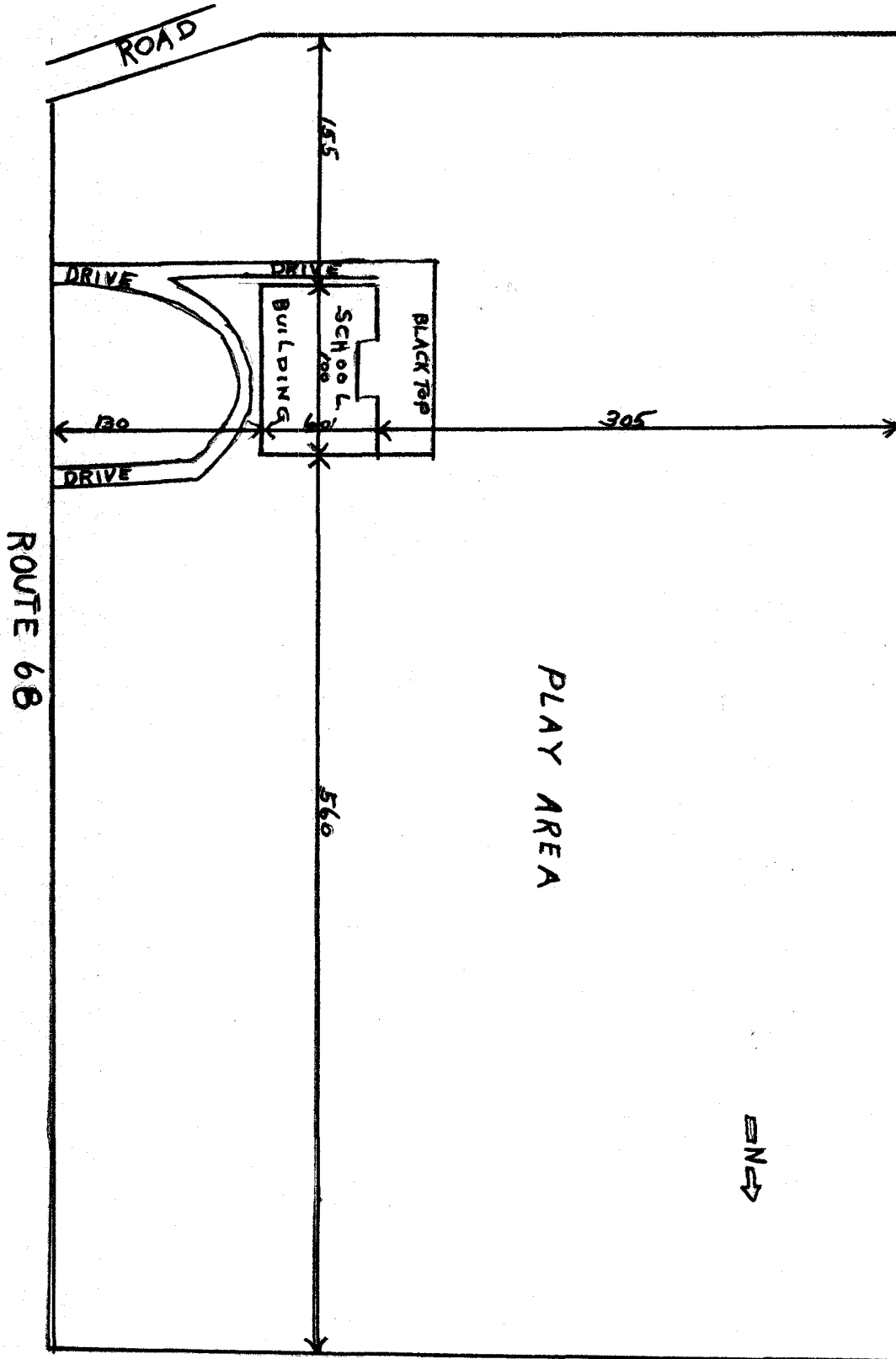


Figure 10

Sketch of the Site of the Green-Sterling School

satisfactory. The play area and facilities need further development; especially should an effort be made to provide more activities in which girls are interested. There should be a fence along U. S. Highway 68. Increased parking space would be an improvement, since at the present time the only parking is in the semi-circular drive in front of the school.

Hamersville

The Hamersville School is easily reached by mechanized transportation, being located on State Highway 125 at the western edge of the village. The neighborhood around the site is residential and rural farm, most of which is well maintained. That part of the site which lies behind the school building has not been utilized to best advantage, most of it at times being covered with tall weeds and grass.

An adequate program of playground and athletic activities cannot be developed on a site of only five acres, which is the size of the Hamersville site sketched in Figure 11. If this were an elementary rather than a combination elementary and high school, a fairly satisfactory program of outdoor activities could be provided, but even then additional space should be purchased.

The front of the site supports good turf and is nicely planted with shrubs. Adequate parking space is not provided, and cars are parked on the edge of the highway in front of the school, or on the edges of the drives leading to and from the building.

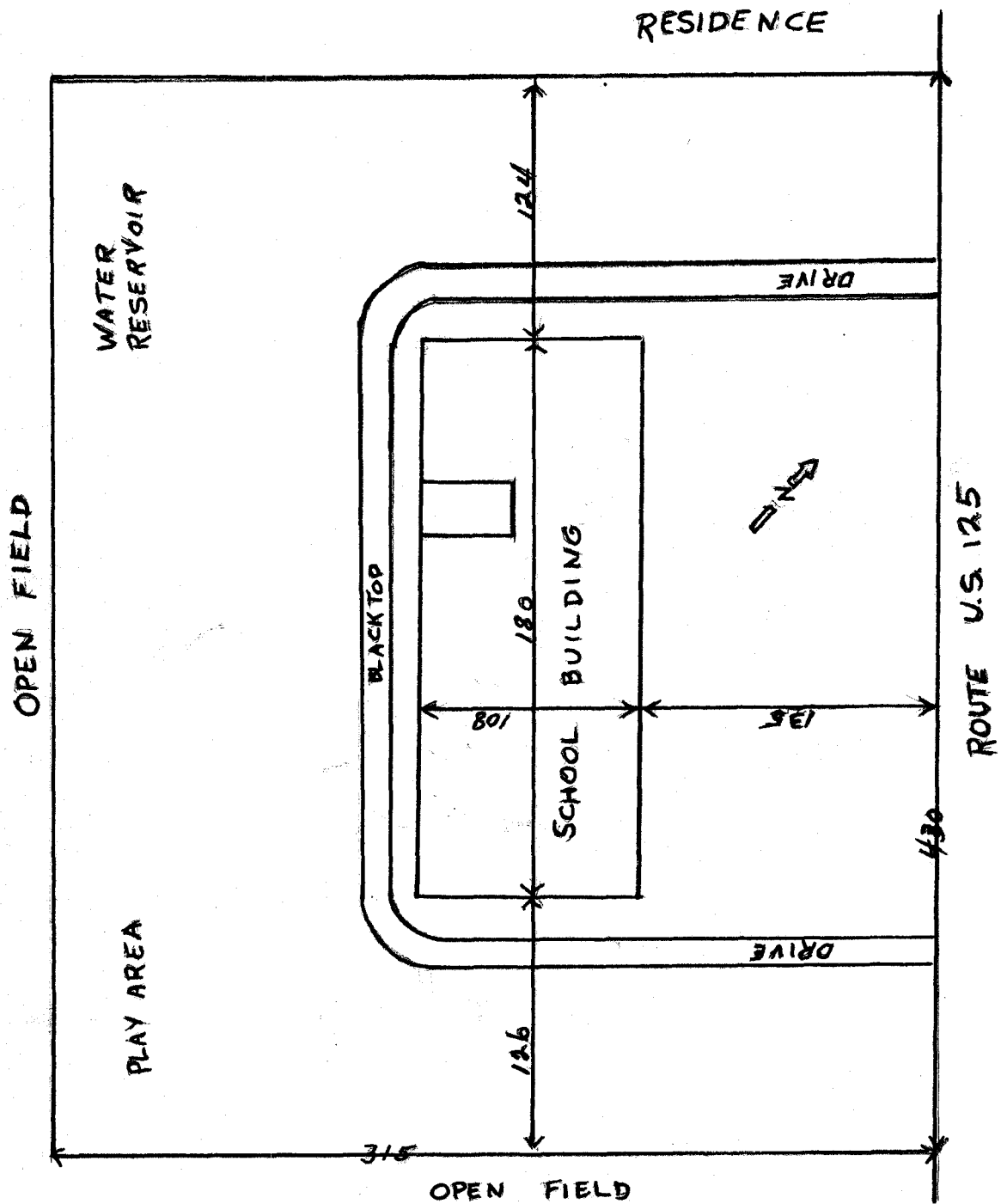


Figure 11

Sketch of the Site of the Hamersville School

Higginsport

The site of the Higginsport Elementary School is located a suitable distance from U. S. 52, which runs through the village. However, the street leading from this high-traffic highway to the school is badly in need of resurfacing. The environment is fair, consisting largely of residential property. The school site seems to detract from the attractiveness of the area, since it needs landscaping as well as better maintenance.

The two-and-one-half-acre rectangular site, shown in Figure 12, would be considered inadequate regardless of the size of the school, yet elementary pupils of the first eight grades are in attendance. To carry on an effective outdoor program, contiguous land or space within reasonable walking distance should be acquired.

In addition to the size limitations, the elevation of the site is such that adjoining land on the north is higher and drains onto the site, helping to create marshy areas. There are several large trees, but there has been no attempt to grow lawn or shrubs; nor have play facilities been developed, children being left to their own resources without outdoor supervision. No parking space has been provided, making it necessary to park on the side of the street leading to the school.

Jackson

Located at the southern edge of Ash Ridge, on U. S. 62, the site of the Jackson School, which has an eight-year elementary program, is

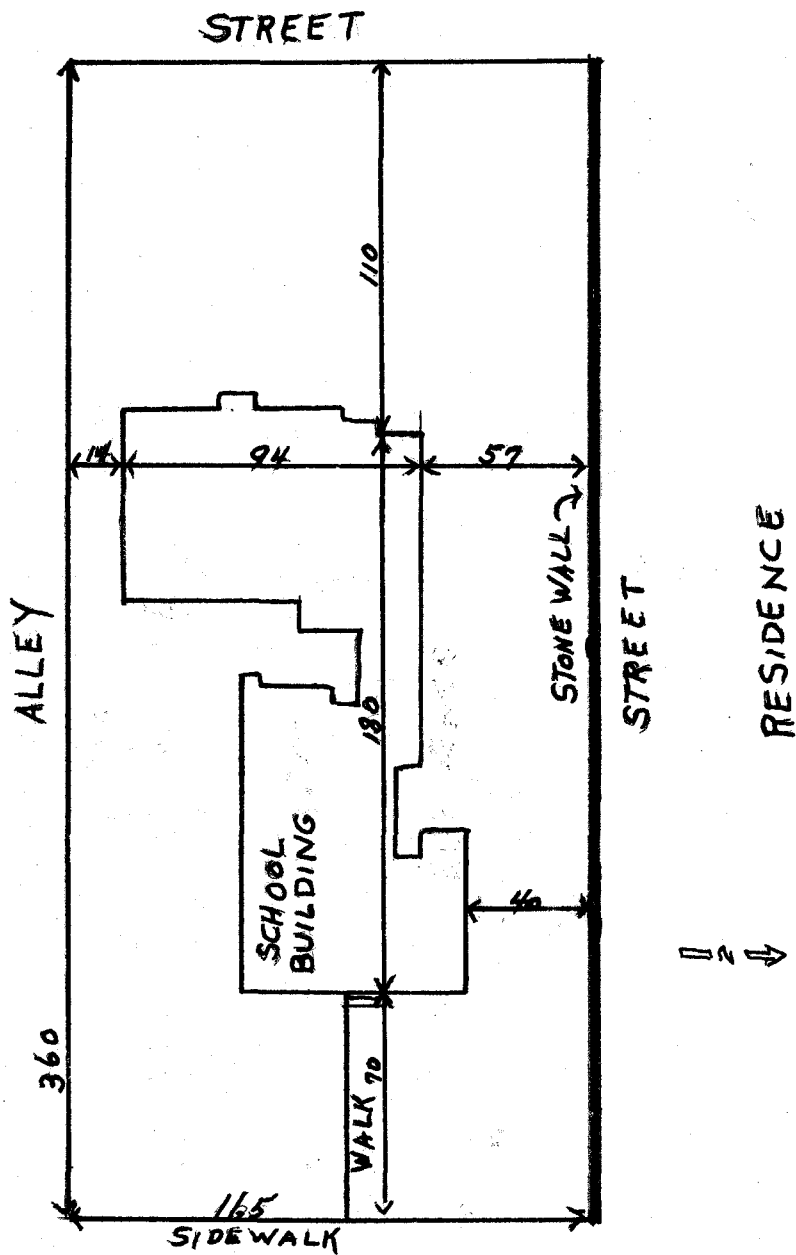


Figure 12

Sketch of the Site of the Higginsport School

easily reached by mechanized transportation. Although there are several poorly maintained residences near the school, the overall environment is quite satisfactory.

The rectangular three-acre area provides a very meager space for supervised play and athletics. In addition to the play areas and the school building, there is a bus garage, a parking area, a cesspool, and a well. If a school continues to be maintained here, additional land should be purchased and developed for the benefit of the children and possibly for community use.

Most of the site, which is sketched in Figure 13, is turf-covered and is well drained. There are, however, several low areas that are marshy at times and should be filled and seeded.

The playground that is provided is not well developed and the children are usually left to their own resources during play periods. Since the parking space at the rear of the building is metal surfaced, the children tend to play there, especially in inclement weather.

Lewis

This elementary school, situated at the edge of the small village of Feesburg in Lewis Township and about one block from State Route 505, is easily reached by good highways. However, the high school pupils of grades seven to twelve are transported from this area to Hamersville, which is about four miles away. The remaining elementary pupils are provided for in two classrooms of three grades each. It appears that there is excessive overlapping of natural attendance areas and that

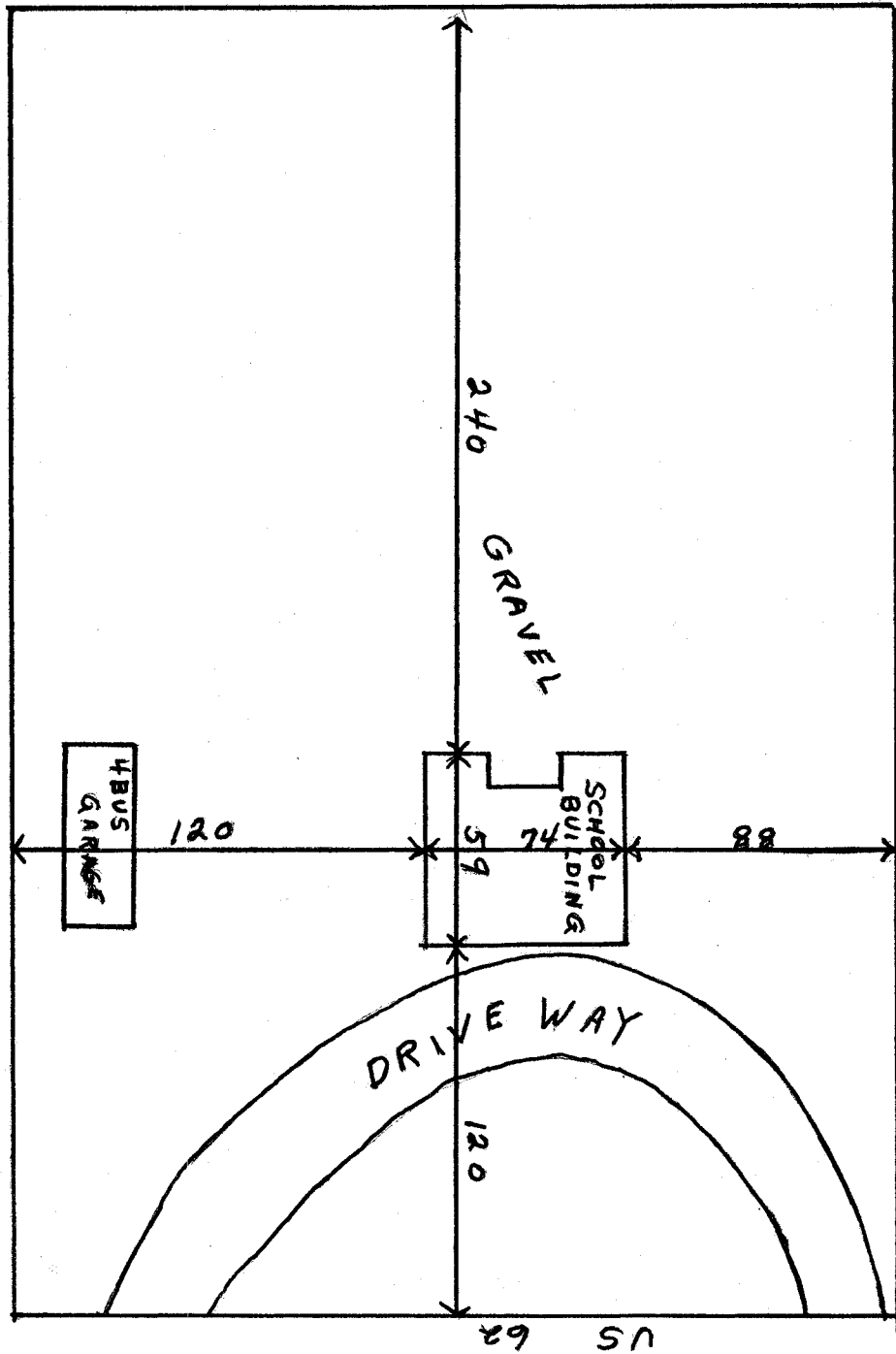


Figure 13

Sketch of the Site of the Jackson School

perhaps there is no sound educational reason for continuing to maintain this school. The general area about the school and an adjoining residence are poorly maintained.

The five-acre irregularly shaped area, shown in Figure 14, approaches adequacy in size. There is no attempt, however, to use effectively the space that is available so that the children might have supervised experiences in playground activities. Furthermore, there is little or no attempt to keep the site, even in the front of the building, attractively landscaped. Although there is space on the site not being used, there is no parking area, and one must park on the side of the road in front of the school.

Mt. Orab

Adjoining U. S. 68 and located toward the southern edge of Mt. Orab, the school site, sketched in Figure 15, is readily accessible by using walks or the highway. The general area is residential and rural farm, most of which is attractively maintained.

As pupils of twelve grades attend school here, the eight-acre rectangular site is not large enough to provide playground and athletic activities for all the pupils. The site would be quite adequate if only the elementary pupils attended here and the high school pupils were enrolled elsewhere, perhaps in a new structure to be built at a future date.

The elevation is satisfactory, although there are several low areas that are not properly drained. In the front of the building there

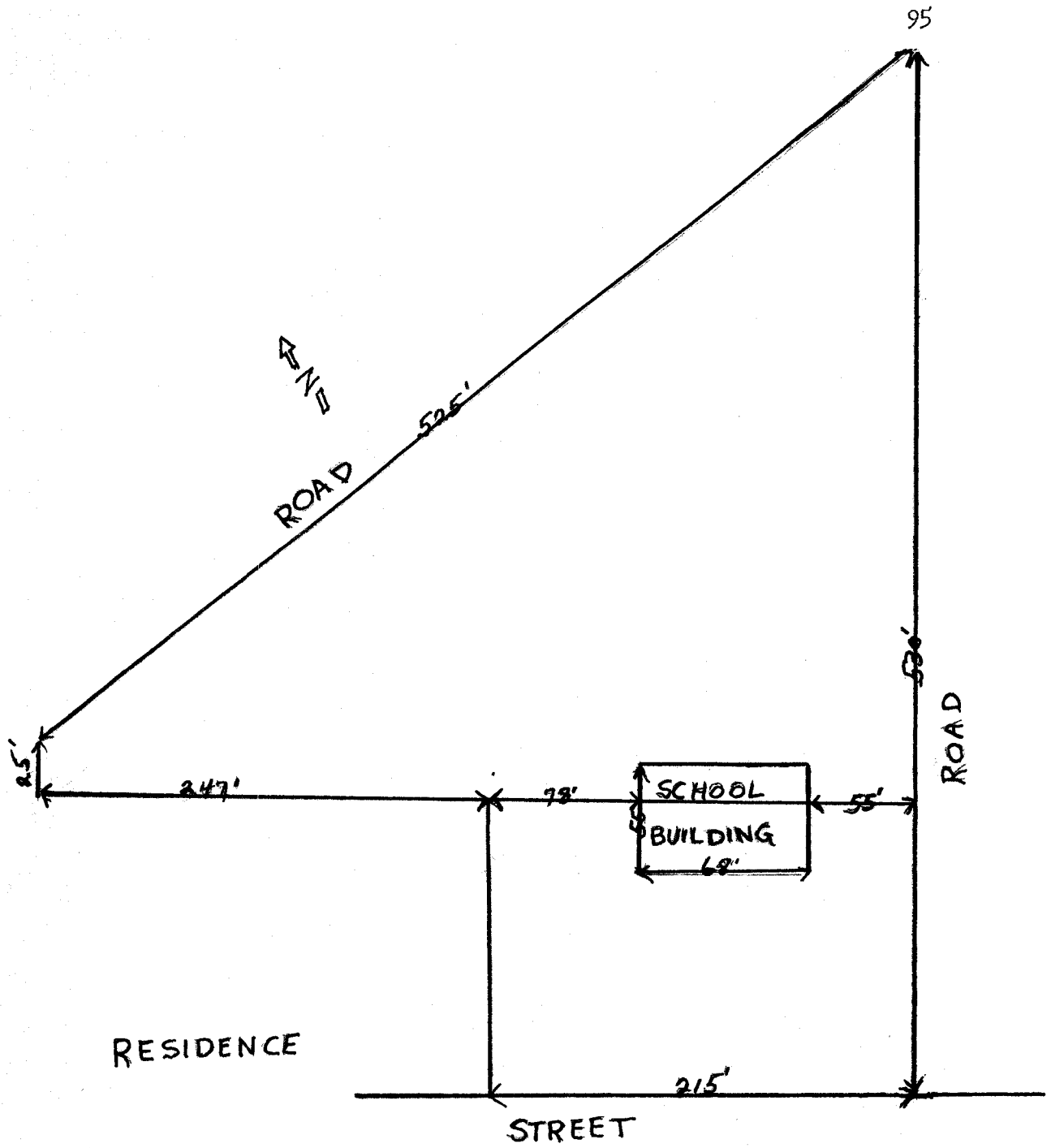


Figure 14

Sketch of the Site of the Lewis School

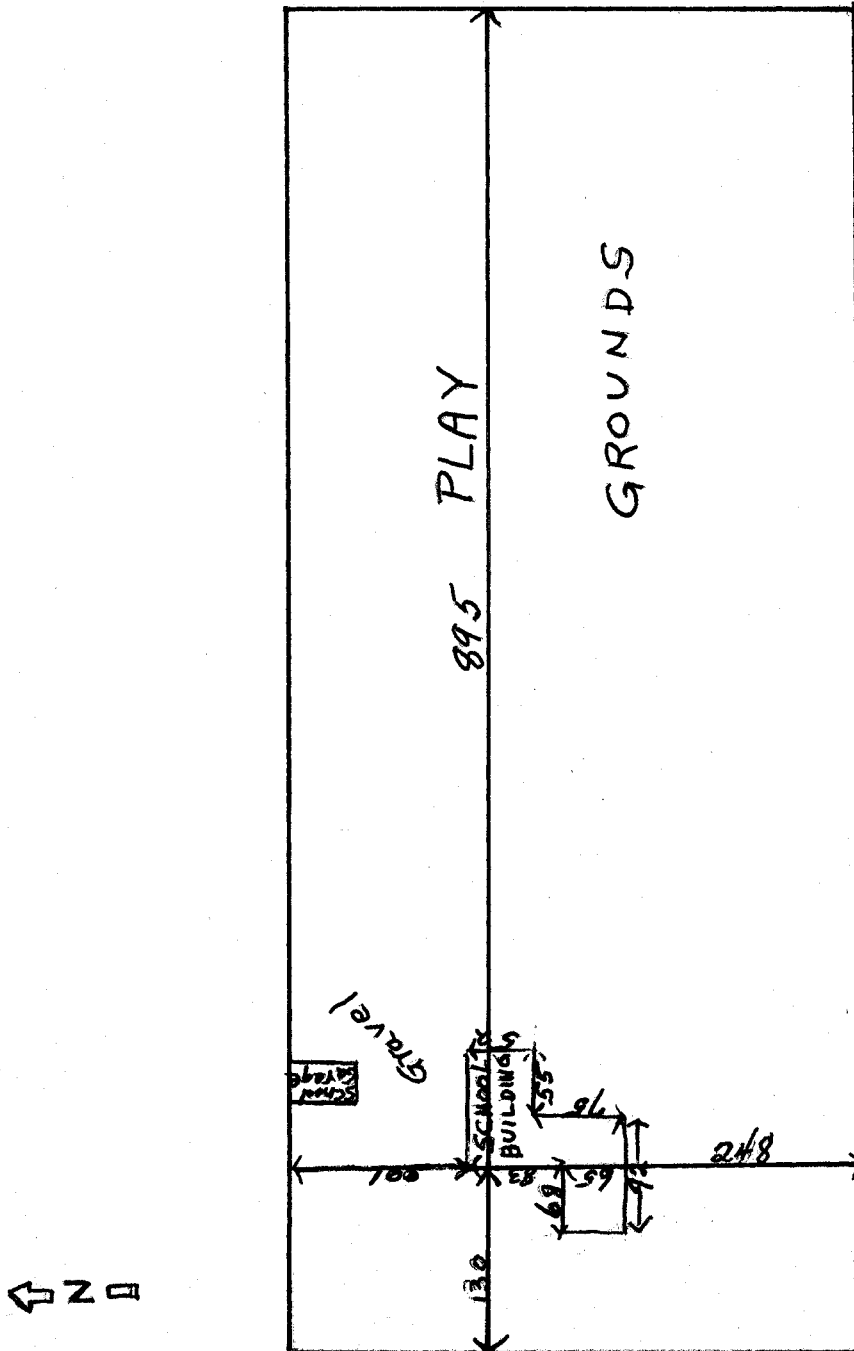


Figure 15

Sketch of the Site of the Mt. Orab School

are attractive shrubs and the soil supports turf; behind the building however, the area is unattractive and inadequately equipped with play facilities.

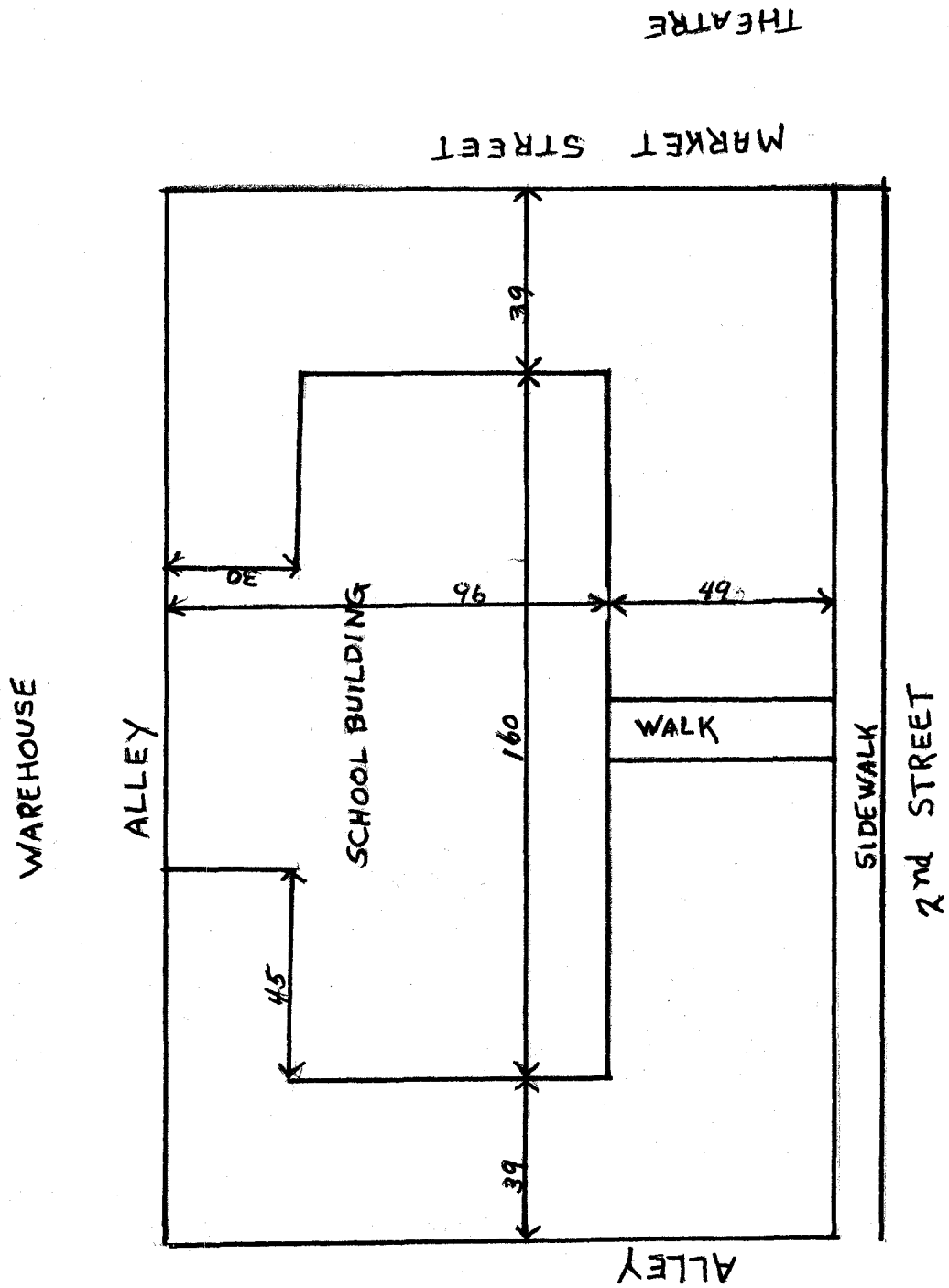
The parking area is probably the most adequate of any public school parking space in the county. It is metal surfaced and should be hard surfaced as soon as possible for greater safety, cleanliness, and convenience.

Ripley Elementary

The site of this elementary school, located in the business area of Ripley and adjoining U. S. 52, is easily reached by sidewalks and paved streets, but U. S. route 52 at this point is rather heavily traveled, thus creating a safety problem. It is rectangular and has a total area of only one-half acre, making it impossible to have an adequate program of playground activities.

It is elevated above the surrounding area, having been built-up with earth and walled in. Although this was done to help prevent flooding of the building when the Ohio River overflows, the school has been closed on several occasions because of high water. The entire site, except for a concrete walk, has been blacktopped, and there are no trees or shrubs. At one edge of the site there is space where automobiles are sometimes parked, but this further reduces the play area for the children.

This site, as Figure 16 helps to depict, is so obsolete, and later chapters will reveal other deficiencies, that the building of a



THEATRE

MARKET STREET

WAREHOUSE

ALLEY

SCHOOL BUILDING

WALK

SIDEWALK

2ND STREET

ALLEY

Figure 16

HOTEL

Sketch of the Site of the Ripley Elementary School

new elementary school on an adequate site in Ripley should be considered without delay. This new building should meet all the public elementary school requirements of this community.

Ripley High

This high school is easily reached by good walks and by U. S. Highway 52, which borders much of the site. Although a potential hazard, this route need not be crossed by the pupils, except by a very few who must cross it to board or leave school buses at an intersection near the center of the village.

The school is located in a residential and park district, the park being used as an auxiliary to the site. Tobacco warehouses are near, on the other side of U. S. 52. These, however, are in use for only a few weeks during the winter months.

Although not now well developed, as indicated in Figure 17, the eight-acre site is not large enough for a well-rounded high school recreational and athletic program, particularly since this is a six-year high school. The elevation of the site permits excellent drainage and prevents flooding from the river. The soil supports good turf, and the area in front of the building is shrubbed.

A hard-surfaced parking space is provided. A better location should have been selected, as pupils must cross the drive to the parking space in order to go to or from the main playground.

If this school is to be maintained as a high school, additional space should be acquired. If, however, a new high school building were

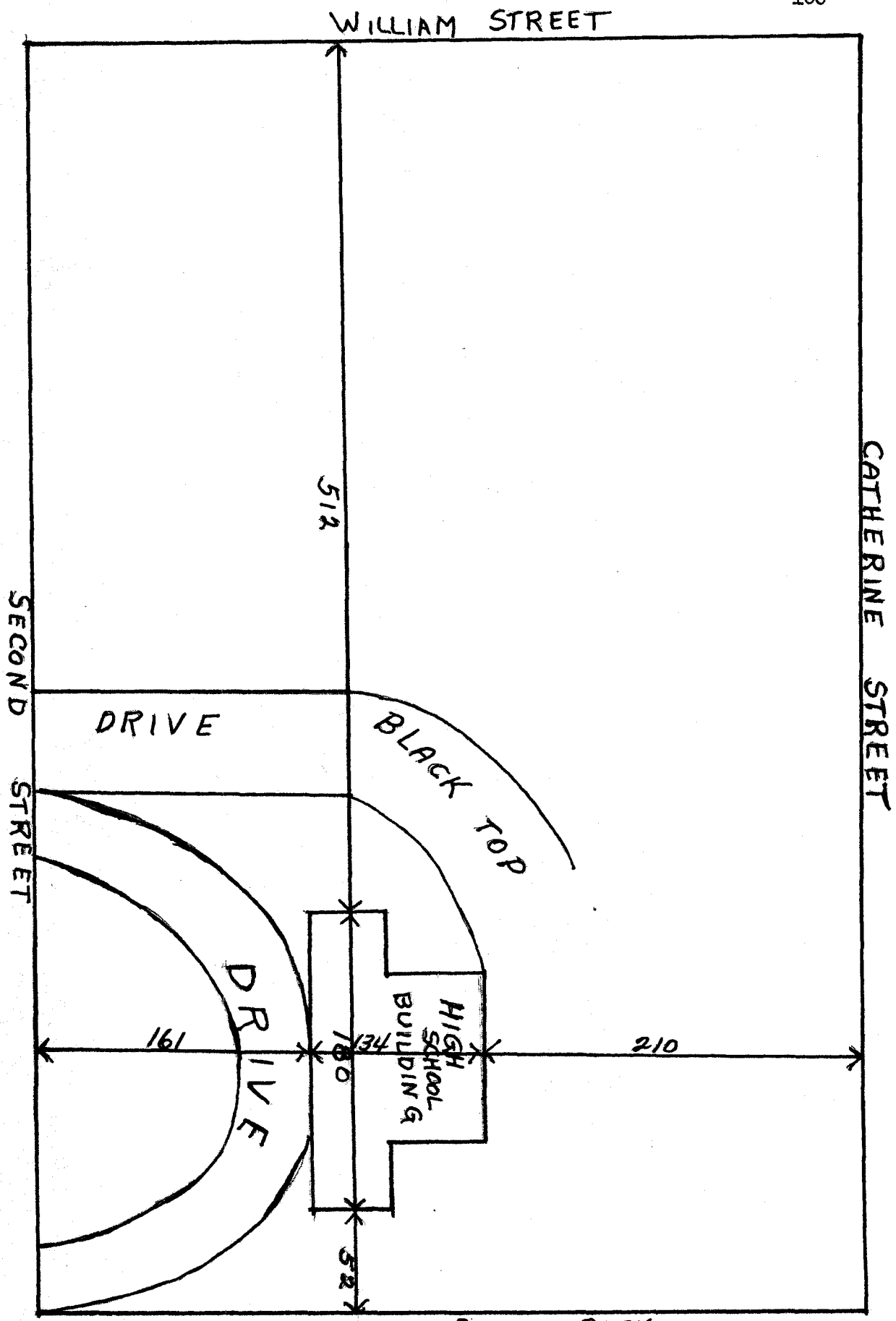


Figure 17

Sketch of the Site of the Ripley High School

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to be erected on another site to serve the southern part of Brown County, and the present high school building were converted for elementary school use, the present site would be quite adequate.

Russellville

The Russellville School site borders on State Highway 125 and is easily reached by walks. It is located in a residential area where most of the homes are quite modest but fairly well cared for.

The three-and-one-half-acre site, shown in Figure 18, is in two parcels, the larger, across a street from the smaller, being used for playground and athletic activities. It is equipped with lights and is used extensively by the community. The school building and an auxiliary building, still used but condemned for school purposes several years ago, are located on the smaller parcel. If this school should continue to be operated as a combined elementary and high school, additional playground space will have to be purchased and properly developed. A suitable program of activities cannot be maintained with the existing site limitations.

The elevation of the site is excellent, permitting drainage of all areas. Most of the soil supports turf, except the infield of the ball diamond and certain areas around the buildings. The front of the site is shrubbed and presents a pleasing appearance. Little attention has been given to provision for parking, so teachers and others now park on a side street adjacent to the school site.

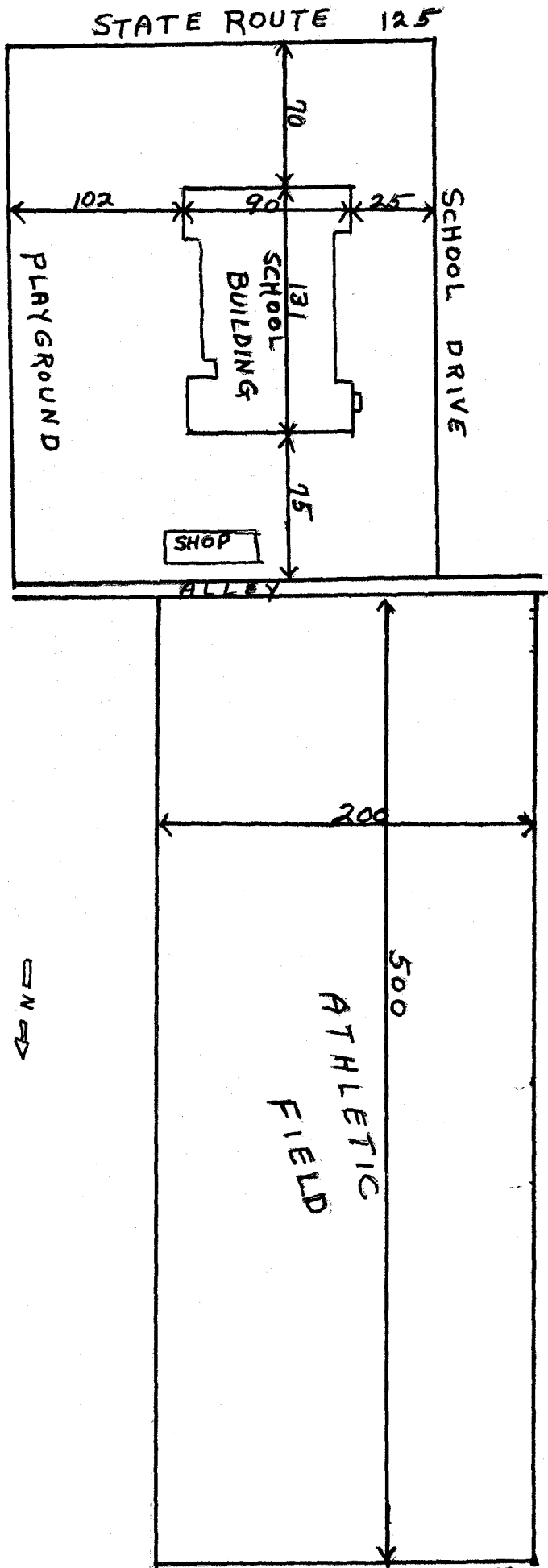


Figure 18
Sketch of the Site
of the
Russellville School

Sardinia

This twelve-year school is well situated on a dead-end street, away from traffic, noise, and other disturbing influences. The neighborhood surrounding the school is strictly residential, and the homes are well kept.

Sardinia has a two-and-one-half-acre rectangular site, too small for a well-rounded program of outdoor activities. The soil is of a clay type which does not readily support turf; consequently, there are several places where the surface is bare earth, and there are signs of erosion, also.

As shown in Figure 19, the site is undeveloped in so far as play and athletic facilities are concerned. A driveway curves around the building through the play area, limiting activities and creating a safety hazard. While the front of the site has been landscaped, little has been done to beautify the area at the rear. The only parking is along the sides of the street in front of the school.

Scott

Located near New Hope, a small village on U. S. 68 between Mt. Orab and Georgetown, the site of the Scott Elementary School, sketched in Figure 20, is reached by ascending a rather steep metal-surfaced roadway which has no walks on either side for pedestrian use.

The rural environment provides a pleasant setting for the school activities that take place on the four-acre site. It is quite evident, however, that little attention is given to play and recreation in the

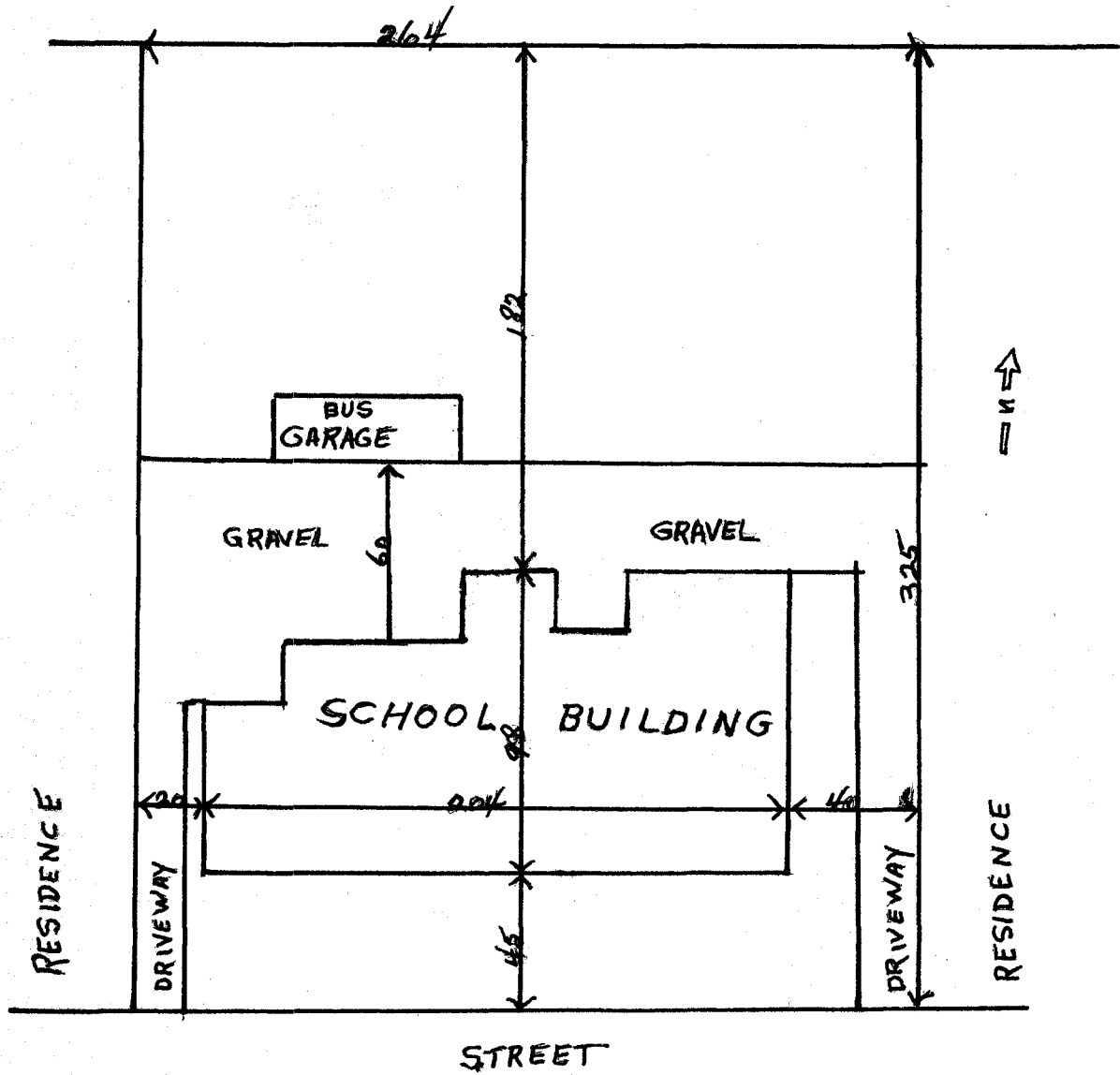


Figure 19

Sketch of the Site of the Sardinia School

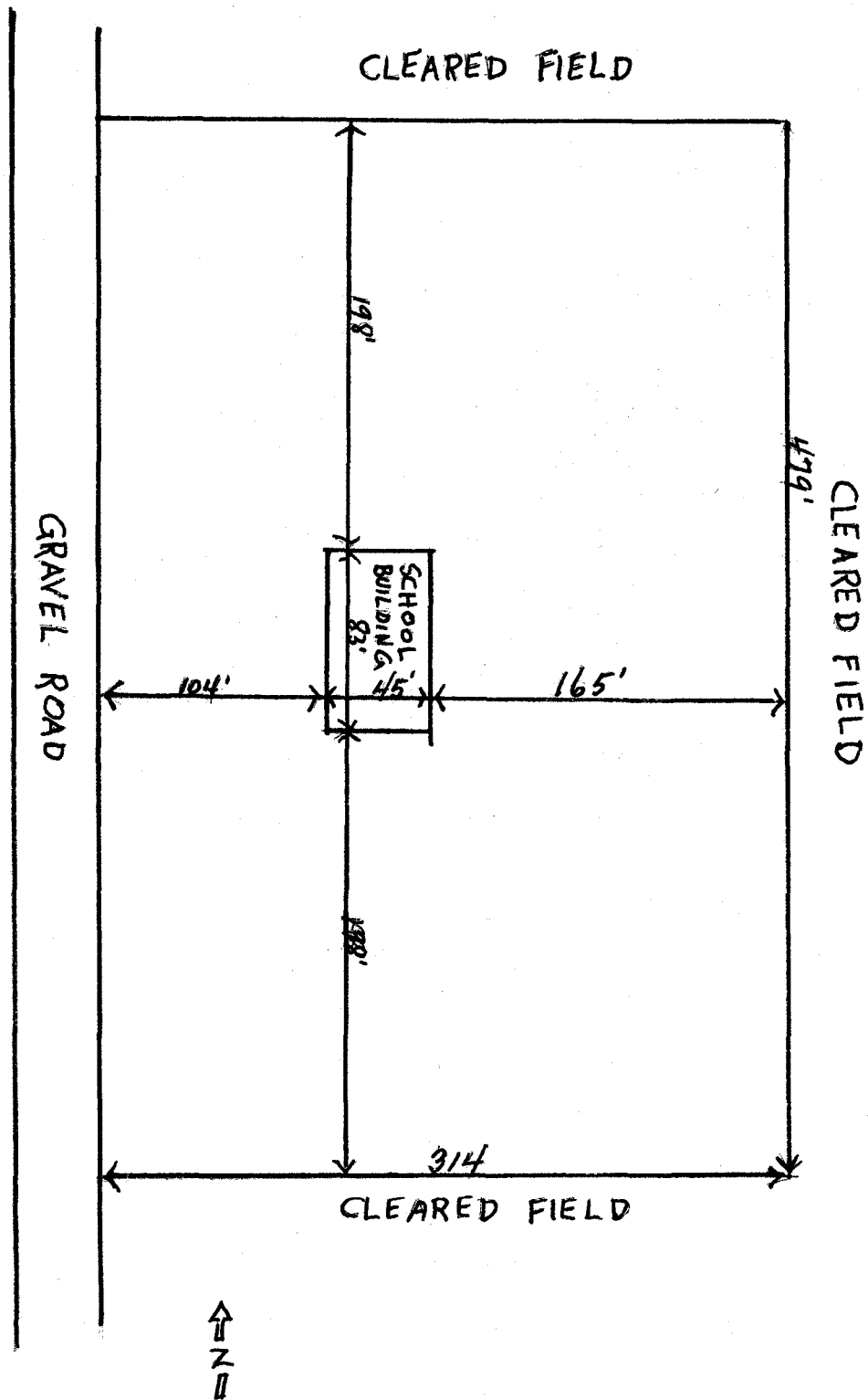


Figure 20

Sketch of the Site of the Scott School

educational program. There are several overlapping ball diamonds and one earth basketball court, but there is no provision for outdoor play for the younger children.

The elevation of the site is excellent, and all parts appear to be properly drained. Most of the soil supports good turf, and the area in front of the building has been planted with shrubs. The only parking space is on the edges of the metal-surfaced drives leading to and from the building.

The high school pupils of the upper four grades from this district attend school at Mt. Orab, and consideration should be given to enrolling the elementary pupils there, too. If, however, Scott continues to be operated, the site must be enlarged and developed to provide proper playground opportunities for the pupils attending there.

St. Martin

Although not near the center of the area served, this site is quite easily reached by using paved highways. Because of its location, however, there is a pupil transportation problem, since several of the same buses that transport pupils to and from the Fayetteville High School also transport the St. Martin pupils. The distance between these two schools, both of which are in the same local district, is almost three miles.

The village of St. Martin is a small rural residential community providing a pleasant setting for this six-year school. The general area would be improved if more of the residents took better care of

their properties.

The site, shown in Figure 21, is about one-half acre in size, too small for any desirable educational program, but a Church site adjoins that of the school, and the children have permission to use it for play. However, it is not developed for school purposes, and the children are left to their own resources during play periods. Both sites are flat and there are several areas in which the drainage is faulty. Most of the school site is metal surfaced, while the church site supports turf. On one side of the school building there is turf and some shrubbery. There is no special parking area; sometimes automobiles are parked on the street and sometimes in the driveway. These site deficiencies, and other shortcomings to be noted later, indicate that this school should be abandoned without delay.

St. Michael

St. Michael is one of the two public elementary schools in Ripley. The site, building, and equipment are owned by the Catholic Church and leased for a nominal sum by the Ripley Board of Education. Located at the upper end of a very steep street, which needs resurfacing, the site is not very accessible. Walks for pedestrians lead to the school, but even these are a hazard because of their grade. The general environment leaves much to be desired, since several of the nearby homes are not well cared for. Further, there is a hill just north of the building that obstructs the view and shuts out sunlight during much of the morning.

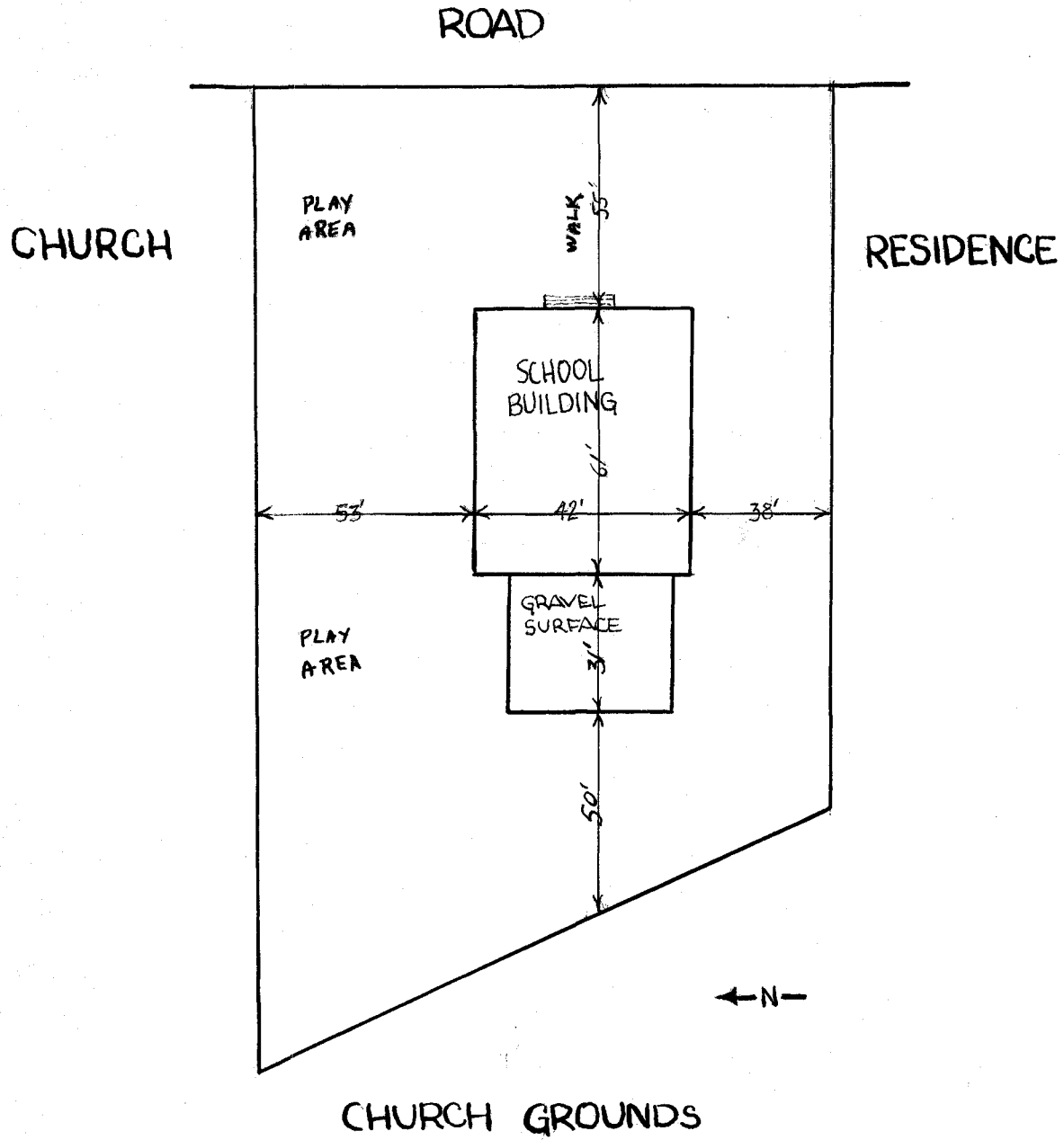


Figure 21

Sketch of the Site of the St. Martin School

As shown in Figure 22, the irregularly shaped half-acre plot of ground is blacktopped and has some play equipment. There is no turf or shrubbery, except in a very small area behind the building. There is no provision for parking except on the steep hill leading to the school; even the school buses park about one block from the school to load and unload the children.

These gross inadequacies, along with others, indicate that this elementary school which enrolls slightly over one hundred pupils in eight grades should be maintained no longer as a public school. Immediate plans should be made for combining the two public elementary schools in Ripley into one school large enough to meet the kindergarten and public elementary school needs of this community.

Summary

In regard to accessibility, most of the school sites are evaluated as excellent or satisfactory. The site of the Lewis School is rated sub-satisfactory, owing to the obvious overlapping of natural attendance areas, while that of the St. Michael school is rated as generally poor, because of its location at the upper end of a very steep hill.

The environment of most of the schools is excellent or satisfactory, but three schools rated low in this category, Aberdeen and Ripley Elementary because of their proximity to business areas, and St. Michael because of a very steep hill near the building and the presence of poorly kept residences.

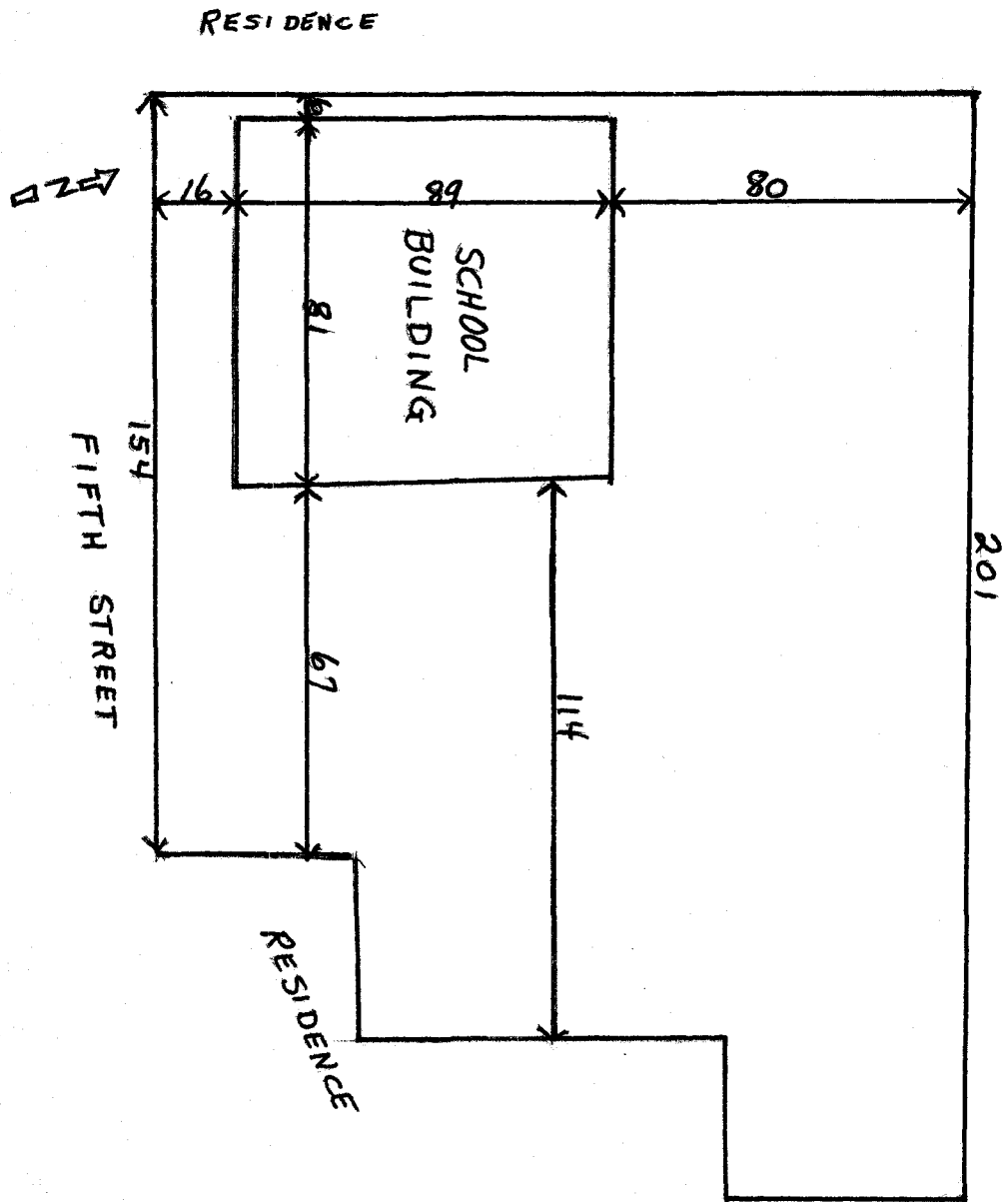


Figure 22

Sketch of the Site of the St. Michael School

None of the sites is large enough for an adequate program of playground and athletic activities. Considering size alone, the three best sites are those of Green-Sterling, Mt. Orab, and Ripley High School. The sites of five schools, Aberdeen, Georgetown Elementary, Georgetown High, Ripley Elementary, and St. Michael, are rated as thoroughly unsuitable and given no credit in the size category. All the other sites are considered generally poor.

In the category of improvements, arrangements, and landscaping, all of the sites have been neglected. Fifteen of the schools were given full penalty, while Fayetteville, Green-Sterling, Jackson, and Ripley High were given partial credit but not enough to place them above the very poor rating.

Considering the total scores, none of the sites is rated excellent, and only one, that of Green-Sterling, is rated satisfactory. The next highest rating, borderline, is given to the Mt. Orab site, and twelve school sites, those of Decatur, Eagle, Fayetteville, Georgetown Elementary, Georgetown High, Hamersville, Jackson, Lewis, Russellville, Sardinia, Scott and St. Martin, are rated as generally poor. The Higginsport site is considered very poor, while those of Aberdeen, and Ripley Elementary are inadequate, and that of St. Michael is considered to be obsolete.

CHAPTER VII

EDUCATIONAL ADEQUACY OF PRESENT BUILDINGS

Each school building was evaluated according to the criteria of the Guide for Evaluating School Buildings described in Chapter II. These criteria are listed in Appendix D. Table 13 shows the possible score in each category of the building evaluation, the possible total score, and the scores allotted to each of the nineteen school buildings. The score for each school in each category was arrived at by making deductions, if appropriate, from the possible score at the time of the building evaluation, and the reasons for the deductions were written in the spaces provided for that purpose in the guide. Table 14 shows the interpretation of these scores. The evaluations of the buildings follow in the alphabetical order of the schools:

Aberdeen

The Aberdeen building, constructed in 1939, is the newest of the nineteen used for classroom purposes. Although recently built, it is not oriented to provide adequate natural light for the educational functions that take place there. Virtually all of the fenestration is unilateral, and there is no attempt to control the direction from which light enters. Even the cafeteria and home economics suite have insufficient lighting because of unilateral fenestration and wide mullions between the windows.

School buildings should be built in such a way that future

TABLE 13
SCORES ALLOTTED TO EACH SCHOOL IN THE BUILDING EVALUATION

Name of School	Score in Each Category of Building Evaluation																
	Gross Structure												Internal Structure		Totals		
	Placement	Educational Plan and Utilization	Type	Form	Foundation	Height	Walls and Floor	Roof	Entrances and Exits	Condition- Appearance	Acoustics	Fenestration	Stairways	Corridors		Basement	Attic
(Highest Possible Score)	10	20	20	5	10	5	7	5	8	5	5	5	25	20	15	5	170
Aberdeen	0	0	20	1	10	5	6	5	8	5	1	1	25	5	0	5	97
Decatur	4	0	8	1	6	5	5	5	8	5	1	1	10	8	3	5	75
Eagle	2	0	0	1	10	1	0	5	4	0	3	1	5	8	0	5	45
Fayetteville	4	4	20	2	10	5	7	5	8	1	1	1	25	20	1	5	119
Georgetown Elementary	1	0	0	0	10	1	0	5	0	0	1	1	0	0	0	5	24
Georgetown High	4	0	14	1	10	5	2	5	8	5	1	1	10	11	0	5	82
Green-Sterling	2	12	11	1	0	5	4	3	0	0	1	1	5	5	0	5	55
Hamersville	2	0	20	2	10	5	3	5	8	5	0	1	17	11	15	5	109
Higginsport	0	0	0	0	10	1	0	5	1	0	1	1	0	5	9	5	38
Jackson	5	2	20	2	10	5	5	5	5	5	3	2	25	20	0	5	117
Lewis	1	0	0	1	10	5	0	5	0	0	1	1	10	11	7	5	57
Mt. Orab	0	0	0	0	10	2	0	5	4	0	0	1	0	0	0	5	27
Ripley Elementary	0	0	0	0	10	5	0	0	2	0	0	1	10	0	0	5	33
Ripley High	4	8	20	2	10	5	0	5	8	5	1	1	19	8	9	5	110
Russellville	0	0	0	1	10	2	0	5	8	0	1	1	0	2	15	5	50
Sardinia	0	0	0	0	10	1	0	5	2	0	1	1	16	0	0	5	41
Scott	2	2	5	2	0	5	0	5	4	0	1	1	25	5	3	5	65
St. Martin	2	0	0	0	10	5	1	5	2	0	1	1	0	2	9	5	43
St. Michael	0	0	0	1	10	1	0	5	0	1	0	1	0	0	0	5	24

TABLE 14
INTERPRETATION OF SCORES IN THE BUILDING EVALUATION

Score Interpretation	Category of Building Evaluation																
	Placement	Educational Plan and Utilization	Gross Structure										Internal Structure		Totals		
			Type	Form	Foundation	Height	Walls and Floor	Roof	Entrances and Exits	Condition- Appearance	Acoustics	Penetration	Stairways	Corridors		Basement	Attic
Maximum Possible Score	10	20	20	5	10	5	7	5	8	5	5	5	25	20	15	5	170
Excellent	9	18	18	4.5	9	4.5	6.3	4.5	7.2	4.5	4.5	4.5	22.5	18	13.5	4.5	153
Satisfactory	7	14	14	3.5	7	3.5	4.9	3.5	5.6	3.5	3.5	3.5	17.5	14	10.5	3.5	119
Sub-satisfactory	6	12	12	3	6	3	4.2	3	4.8	3	3	3	15	12	9	3	102
Borderline	5	10	10	2.5	5	2.5	3.5	2.5	4	2.5	2.5	2.5	12.5	10	7.5	2.5	85
Generally Poor	4	8	8	2	4	2	2.8	2	3.2	2	2	2	10	8	6	2	68
Very Poor	3	6	6	1.5	3	1.5	2.1	1.5	2.4	1.5	1.5	1.5	7.5	6	4.5	1.5	51
Inadequate	2	4	4	1	2	1	1.4	1	1.6	1	1	1	5	4	3	1	34
Obsolete	1	2	2	.5	1	.5	.7	.5	.8	.5	.5	.5	2.5	2	1.5	.5	17
Thoroughly Unsuitable	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

additions may be made without destroying the balance of the design, overtaxing the service systems, or hampering the flow of pupil traffic. The design should also permit flexibility of internal structures so that changes may be made to accommodate future needs of the educational program. The Aberdeen building was constructed to remain as it is, being designed neither for expansibility nor for flexibility. It is well constructed, however, and evidently the materials and workmanship were excellent.

The form of the building is questionable educationally, as the basement was designed and is used for classroom purposes and food service. Furthermore, the chief indoor entrance to the auditorium-gymnasium is through the basement corridor. The height of the two-story building appears to be in proportion to the other features; especially is this true, as the building is fire resistive. Usually, one-floor buildings are preferred, as they lend themselves to less expensive construction and really are safer than multi-story buildings if doorways lead to the outside from each classroom. In addition, stairways, often a safety hazard, are not required in the single-story buildings.

The foundations of the building are strong and stable and are properly waterproofed and drained. The exterior walls are sufficiently strong, airtight, and watertight. The interior walls and ceilings have been redecorated recently and are attractive, free from cracks and holes, and apparently present no safety problems. The asphalt tile floors are well laid and free from humps and holes, worn spots, and, of course, splinters. The tile selected for the floors is too

dark in color and does not reflect enough light for healthful seeing conditions. The roof, which is in good condition, is properly flashed and drained, providing a durable weatherproof watershed. The entrances and exits are adequate in size and number, well located, and in good condition. In agreement with current safety practices, there are no outside fire escapes. Because of an excellent maintenance program the building is kept clean, painted where needed, and in good repair.

No attention was given to acoustical treatment when the building was designed and constructed; nor has this situation been remedied since. Typically, boards of education and school administrators have not concerned themselves sufficiently with the effects of poor acoustical conditions on teachers, pupils, and the total learning process.

Fenestration was referred to earlier, and it was stated that virtually all of the natural lighting is unilateral and that there has been no attempt to control the direction from which light enters the rooms, this feature depending solely on where the rooms happen to be located. Criteria for good fenestration are presented in Appendix D.

The stairways are sturdy and, like the stairwells, are fire resistant. They are not too steep, have wide treads, and there is one landing between floor levels on each stairway. They are adequate in size and number, not so wide as to require a center handrail. As is not always the case in stairway construction, those at Aberdeen do lead to exits. The corridors are designed and located to accommodate and control traffic flow. They are not, however, quiet and well lighted. Even the low-wattage lamps provided are usually not turned on, perhaps

to keep electrical consumption to a minimum. Pupil lockers are provided in the corridors.

Authorities are agreed that basement areas should not be used for pupil activities of any kind, but at Aberdeen the basement is used for home economics and industrial arts instruction, food service, and several of the toilets are located here.

Any attic space that may result from the design of a school building should be easily accessible, free from hazards, and not used for storage or any pupil activity. At Aberdeen there is no attic space.

Decatur

In regard to placement, the Decatur building is not oriented to provide adequate natural light for all educational functions. In addition, the toilet rooms receive a meager supply of natural light.

Although originally designed to have a second floor built upon the present one-story structure at some later date, the building is not expansible in this direction because of the poor quality of the materials used in the original construction; nor does the internal design of the building lend itself to flexibility. Owing to the poor quality of certain of the materials, concrete is crumbling and mortar is falling from between the bricks, but in spite of these weaknesses, the building is attractive and pleasing in appearance, although not educationally practical and efficient, lacking in such facilities as a cafeteria, an adequate shop, a business education suite, acoustical treatment, and adequate lighting.

The height of the present structure is in accord with current recommendations for rural buildings. A building of this height, particularly if there are outside doors to all classrooms, provides maximum safety for its occupants. The classrooms of the Decatur building, however, do not have exits leading directly to the outside.

The foundations are apparently waterproofed and drained, but there has been considerable crumbling of the concrete in certain areas. The exterior walls are now watertight, having been waterproofed in 1948. The interior walls and ceilings were made more attractive recently with cream-colored paint, but this improvement would have been even greater if the ceilings had been painted white and the walls in pastels. The floors are well-laid asphalt tile which should have been lighter in color. The new roof, constructed in 1948, provides a durable weatherproof watershed. Entrances and exits are adequate in number, size, and type, and there are no outside fire escapes. For some reason, one exit door is provided with a padlock, which, if used, would create a safety hazard. The condition and appearance of the building, except for the poor materials used in the original construction, are excellent. It is kept clean and the woodwork is painted periodically.

Apparently, when the building was designed and constructed little attention was given to sound control; nor has the building been treated acoustically since its construction. Fenestration is unilateral with wide mullions between the windows, and is not varied with the classroom orientation. Criteria for improved natural lighting are in Appendix D.

The internal structure category includes stairways, corridors,

and lobbies, basement areas, and attics. At Decatur, the only stairway is a steep, poorly lighted, wooden structure leading from the first floor to the furnace room, which, adding to the already hazardous condition, is also used for an industrial arts shop. Lockers are not provided for the pupils either in the corridors or in the classrooms. Pupils must hang their wraps in one cloakroom provided for the entire school. The corridors are attractive but should be acoustically treated and better lighted. There is no attic space resulting from the design of the building.

Eagle

The Eagle building is not oriented so as to provide adequate natural light for its educational functions. Further, the basement location of the cafeteria and the toilets prohibits the admission of sufficient daylight for these facilities.

Considered by many to be an attractive structure, it is not practical and efficient educationally, lacking a gymnasium, and adequate office, clinic, and library facilities. Designed to remain as it is, the building is not expansible, and the location of walls, corridors, and stairways precludes any rearrangement of the internal structure to meet changing needs. The type of construction and the materials used are very unsatisfactory according to present-day standards. There are two floors and a basement, yet the building is not fire resistive, the floors and the main stairway being made of wood.

The foundation appears to be strong and stable and properly waterproofed and drained. The height of the building is not satisfactory, especially since it is not fire resistive, although apparently fire resistive inside stairways lead to the outside from the second-floor rooms. The exterior walls seem to be strong, airtight, and perfectly watertight. The interior walls and the ceilings are badly in need of redecoration, and the wooden floors are oil soaked, very dark, and squeaky. The roof remains in good condition and provides a weatherproof watershed. There is an adequate number of entrances and exits properly located for the design of the building. Most of the doors, however, do not have automatic locks, panic bars, door checks, and kick plates. The condition and appearance of the building would be improved if several window frames were repaired and the outside woodwork painted.

The teachers at Eagle seemed quite satisfied with the sound control. The ceilings have been covered with an irregularly surfaced metal which seems to provide fairly adequate acoustical conditioning, although probably not as satisfactory as modern acoustical tile. Fenestration does not vary with classroom orientation, being unilateral with wide mullions between the windows.

The stairway leading from the first to the second floor is wooden. The corridors need redecoration and improved lighting. Although it is generally agreed that basement areas should not be used for any pupil activities, the cafeteria and toilets are located in the basement. As these basement areas will continue in use, they should

be made more attractive. A small attic space has resulted from the design of the building, but it is not used for storage.

Fayetteville

The Fayetteville building is not designed to provide adequate natural light for all educational functions. The basement location of the kitchen, cafeteria, home economics rooms, and two toilets prevents the admission of sufficient daylight for these facilities. Built to remain as it is without future additions, this building does not lend itself readily to expansion, nor is it flexible, except that the present library-study hall suite could be arranged as two classrooms by using folding or removable partitions.

The building appears to be structurally sound and evidently was built from excellent materials by competent workmen. It is attractive and well suited to the community, but educationally not especially practical or efficient owing to the small size of several rooms and the basement location of certain facilities. The foundations are strong, stable, and properly waterproofed.

The height of the two-story building is not out of proportion with the other dimensions, since the building is fire resistive. Usually, however, especially in rural communities, one-story school-houses are preferred. Further information in regard to height is in Appendix D.

The exterior walls are strong, airtight, and watertight. The interior walls, too, are in excellent condition, and the asphalt tile

floors are well laid and free from marks, holes and worn spots. The roof is in good condition, providing satisfactory protection from the weather. The entrances and exits are adequate in number, size, and type. They are properly located, in good condition, and equipped with panic bars, door checks, and kick plates. As recommended, no outside fire escapes are provided.

Little or no attention was given to acoustical treatment when the building was designed and constructed, nor has this condition been remedied since construction. Glare from the classroom windows was especially annoying at the time the building was being evaluated. Some of the rooms have bilateral and others have unilateral fenestration. Attempts at controlling the admission of daylight have not resulted in a satisfactory solution of the problem.

Stairways leading to and from the three levels in the building are fire resistive and are adequate in number and size. The corridors are well designed and apparently accommodate traffic flow. Although well lighted, attractive, and safe in all respects, they are not treated for sound control.

According to the criteria in Appendix D, basement areas should not be used for pupil activities. At Fayetteville, the cafeteria, home economics suite, and the industrial arts shop, as well as two toilets, are located in the basement.

Georgetown Elementary

This two-story structure, erected in 1898, is not oriented to

provide natural light of proper quality and quantity for the educational activities that take place there. Almost no daylight is admitted to the basement areas where the only toilets are located.

The design prohibits expansibility without placing walls where windows now exist, nor is the building flexible, inasmuch as the interior does not lend itself to changes. It was not economically planned to permit maximum utilization of the space within the building, a huge stairwell taking up much space that possibly could have been used for educational purposes.

As the building is multiple story yet not fire resistive, it is definitely a potential hazard. Especially is this true when one considers that the huge stairwell, topped by a glass skylight, would serve as a perfect flue in event of fire.

Because of its age, the building is no longer attractive, although at one time it must have been one of the more imposing edifices in the village. Educationally it is outmoded, as there is no gymnasium, auditorium, or office; nor is there cafeteria service, the children being required to eat in the nearby high school cafeteria.

In spite of the structure's age, the foundations continue to be stable and waterproof. Like many schoolhouses built about 1900, this one is too tall, especially since it is a firetrap. The exterior and interior walls are still strong, but the interior walls and ceilings are badly in need of redecoration. The dark, oil-soaked, wooden floors are also in poor condition. One classroom was redecorated recently, the ceiling painted white and the walls pastel green, and a new wooden

floor laid over the old floor. The contrast between this room and the others is amazing, but funds have not yet been forthcoming for improving the environment in the remaining eleven classrooms.

The building has a new roof, properly flashed and drained, providing suitable protection from the weather. Most of the entrances and exits lead to and from outside fire escapes, but several of the doors operate with difficulty. As previously noted, outside fire escapes are not recommended. In this case, however, because of the wooden stairway and stairwell inside the building, the outside metal fire escapes are necessary for the safety of the occupants.

An examination of the condition and appearance of the building disclosed that most of the windows are in need of repair and that exposed woodwork is in need of paint. Although several classrooms have windows on two contiguous sides, there really is no planned control of daylight, and as in virtually all schoolhouses of this age, there has been no provision for acoustical conditioning.

Stairways should be safe in all respects; especially should they be fire resistive. In this elementary-school building the stairway and stairwell are wooden and, being oil-soaked, would burn easily and rapidly. Certain sections of the stairway are too wide for safety, since no center handrails have been provided. There is only one stairway for the six crowded classrooms on the second floor. The corridors on both floors are circular, surrounding the stairway. The classrooms, six on each floor, surround these corridors, which are in need of redecoration and are very noisy during recess periods.

The basement areas are reached by using a wooden stairway, also. Here are located the only toilets in the building. The permeating odors in the area indicated that maintenance practices need to be improved. The whole basement area is quite like a dungeon--dark, poorly decorated, and inadequately ventilated.

Georgetown High

No special attention was given to the orientation of this high school building located in the village of Georgetown and serving a much larger area outside the village limits. As stated in Chapter VI, the site is quite small, typifying the proverbial "postage stamp" site. It is bounded by three streets, and residences limit expansibility on the fourth side. The location of permanent walls in the building restricts flexibility. The study hall, however, could be divided into two rooms by installing a movable partition. At times it could be used as one long room or divided for use of smaller groups.

The materials used in the building were of high quality and the workmanship was competent; however, when the latest addition was joined to the older portion, the floors to be connected at the basement and first floor levels were found not to be at the same grade. This feature resulted in the construction of ramps at these levels, creating a minor hazard. The building is considered attractive and well suited to the community it serves. Educationally it is far from ideal because of the basement location of the cafeteria, home economics suite, and some of the toilets. The foundations are strong, stable, and waterproof.

Because of the grade of the site, the front part of the building is considered to be one story plus a basement, and the older part to the rear is considered to be two story. Since the construction is fire resistive, the two-story section presents no acute safety hazard, but one-floor structures are preferred.

The rooms on the main floor were redecorated in 1949, and those on the lower floor were redecorated in 1950. Educationally, it certainly would have been better to redecorate the lower floor first, as part of it is considered basement level and inadequate light is received there. The environment would have been greatly improved by fresh white ceilings and pastel walls, but unfortunately it is frequently the practice to redecorate first those areas seen most often by visitors. The asphalt tile floors are in excellent condition, but are too dark in color to help create the best visual environment.

The roof is in good condition, providing sufficient protection from the weather. The entrances and exits are adequate in number, size, and type, and are properly located. The doors operate easily and are equipped with automatic locks, door checks, kick plates, and other hardware. There are several stairways connecting the two levels. In most cases they are quite satisfactory, but the stairways connecting the newer and older portions at the lower level are in a very poorly lighted area. The corridors on this lower level are also poorly lighted, and none of them is treated for sound control.

The building is kept clean and in good repair. Certain exterior parts requiring occasional painting were painted in the summer of 1950. There has been no attention given to acoustical treatment. Fenestration

is inadequate, although several rooms are bilaterally lighted. Criteria for suitable fenestration are presented in Appendix D.

That portion of the building on the lower level of the latest addition is considered basement level. Although basement areas should not be used for educational purposes, the cafeteria, the kitchen, and the home economics suite are located here.

Green-Sterling

This elementary building of one floor plus basement faces U. S. Route 68. Three classrooms are in the front of the building and three are in the rear. Admission of light was probably given very little consideration in the placement of the building; and the basement location of the toilets, cafeteria, kitchen, and playrooms prevents adequate natural lighting of these areas.

Although designed for expansibility so that additions can be made without destroying the balance and attractiveness of the building, it could not be expanded without remodeling the heating system and increasing the supply of water. Certain parts of the building are flexible, being equipped with folding doors to permit use of large or small areas according to group needs. Sometimes three rooms are combined so that one is used for a stage and the other two for the seating of the audience.

The building and its site are considered by many to be the most attractive in Brown County and even in this part of the State of Ohio. There are, however, a number of deficiencies not readily apparent to

casual observers. Several exterior wall areas need waterproofing, water pours through several weak spots in the foundation during heavy rains, and there is evidence that some of the concrete used in the foundation was quite inferior. The present custodian of the school helped with the original construction in 1931, and has several interesting stories to tell about examples of poor workmanship and materials, all encouraged by the contractor to keep his costs down.

The interior walls appear to be strong and are located so as not to interfere with the function of the building. Ceilings are strong, free from cracks and holes, and reflect light adequately. Although the floors are wooden, they have been maintained in good condition. The roof was repaired during the summer of 1950 and is now in good condition.

The entrances and exits are not ideal, those in the rear of the building leading to and from the classrooms being connected with outside fire escapes. As previously noted, this is a one-story building with a basement, but the one story is elevated to such an extent that stairways with handrails lead to and from the classrooms in the rear. There is reason to believe that even these exits are not often used, as several doors were stuck and could not be opened easily.

There is no acoustical treatment and this fact is much in evidence during recess periods. Fenestration is not well planned according to present-day standards stated in Appendix D.

There are several undesirable features in the internal structure, including staircases that are not fire resistive, corridors that do not have pupil lockers, and basement areas that are used for cafeteria,

kitchen, playroom, and toilet facilities.

Hamersville

The Hamersville school building, used for both elementary and high school programs, contains two floors for educational purposes and a basement where storage rooms and the heating plant are located. The classrooms have varying exposures depending on their location, little attention having been given to building and classroom orientation at the time of design and construction. The structure is expandible on one side only, and expansion there would probably destroy its balance and necessitate the use of already limited site area. Flexibility is limited, too, because of the permanence of the interior walls. The present library-study hall could be equipped with at least one movable partition to increase flexibility in this second-floor location.

The building is seemingly structurally sound and made from excellent materials by competent workmen. Educationally, there are certain deficiencies such as lack of cafeteria space and an out-of-the-way location of one of the elementary classrooms which is reached by crossing one end of the gymnasium.

The exterior walls are sufficiently strong, airtight, and perfectly watertight. The interior walls are strong and in good condition, but in certain cases limit the flexibility of the building interior. The asphalt tile floors are well laid and in excellent condition, but present a checkerboard appearance, since they are of alternating light

and dark squares. It would have been better had the light tiles been used exclusively. The roof is in good condition and provides satisfactory protection from the weather. Entrances and exits are adequate in size and number, and are properly located. The doors operate easily and are equipped with suitable hardware such as automatic locks, panic bars, and kick plates.

Little or no consideration was given to sound control when the building was designed and constructed, and this deficiency has not been remedied. Fenestration is chiefly unilateral with wide mullions between the windows.

In most respects the stairways are satisfactory. They and the stairwells are fire resistive. Most of the stairways, however, do not lead directly to exits. They should have been constructed just the reverse of their present orientation, so that those using the stairs would find themselves facing exits rather than the interior after descending the last flight. Corridors on both floors are properly designed and appear to accommodate traffic flow with ease. There is, of course, that persistent problem of sound control. As previously noted, basement areas in the Hamersville building are not used for pupil activities.

Higginsport

The original part of this building was built in 1880. A large gymnasium, also used as an auditorium, was constructed in 1933; and the most recent addition, consisting of classrooms, office, and

toilets, was erected in 1937. Provisions for natural lighting do not vary with the building orientation, or it may be more correct to say that provision for natural lighting was not carefully considered at the time of design and construction. It must be remembered, however, that standards for lighting change as new research evidence is reported. Owing partly to site limitations, the additions to the school plant and the original structure are not well integrated, one special disadvantage being the difficulty with which the gymnasium-auditorium is reached by the public.

Because of the above limitations the building is not further expansible, and, owing to the permanence of the interior walls, is not flexible. The original edifice should be replaced with a new addition integrated with the remaining facilities. This old part detracts in many ways from the total evaluation of the school. It is a potential fire trap, quite unattractive, and excessively tall. It contains only two floors but the ceilings are about seventeen feet high, giving the building the appearance of being tall enough for at least three floors.

All the exterior walls appear to be air-and-water-tight, and the interior walls are strong and in good condition, having been redecorated during the summer of 1950. Floors in the building are of two kinds, asphalt tile in the latest addition and wooden in the original portion. The wooden floors are oil soaked and worn; the asphalt tile is in fine condition, but tile lighter in color should have been selected.

The roof of all parts is in a good state of repair, providing adequate protection. Entrances and exits in the oldest part are not

adequate in number, unless one considers the outside fire escapes which are not included in present-day recommendations for schoolhouse design. The front doors do not operate easily and no door checks are provided. The outside appearance would be markedly enhanced if paint were applied regularly to woodwork, such as the doors and window frames.

No special attention has been given to acoustical treatment or to fenestration. Some of the rooms have windows on one side and others have them on two sides. In all cases there are wide mullions separating the windows.

The stairway and stairwell in the older portion are wooden. In the newer part the stairways are fire resistive but do not lead directly to exits. The corridors do not have lockers for the convenience of the pupils, and they really should be better lighted and treated for sound control. As recommended, basement areas are not used for pupil activities, but the custodian finds it necessary to store his equipment there rather than in lockers which should have been provided for this purpose on each floor.

Jackson

This four-classroom building, erected in 1931 and used by pupils of the first eight grades, is not properly oriented to provide adequate natural light, the rooms being unilaterally fenestrated without regard to exposure. Further, the basement location of the toilets prohibits adequate daylighting of these rooms. This school was penalized in the

category of educational plan and utilization, because the building was not designed for expansibility or flexibility and the present service systems are not adequate to accommodate additions.

The building is constructed largely of concrete and brick, making it fire resistive. Apparently the materials used were of the best and the workmanship was competent. Although it is one of the more attractive buildings in this rural community, it is not especially practical and efficient operationally and educationally, chiefly because of the basement location of the auditorium-cafeteria, kitchen, and toilet rooms.

The foundations are strong and stable, and apparently have been properly waterproofed. As this is a one-story building, the height is not out of proportion to the type of construction. Exterior walls are airtight and watertight, and the interior walls are strong. The ceilings, too, are in good condition, while the wood floors are unattractive, dark in color, and have an uneven finish. The roof provides a durable weatherproof watershed and appears to be in good condition. The only penalty for entrances and exits was given because of the difficulty of operation noticed when the doors were opened and closed. There was no penalty given for the condition and appearance of the building, as it is well maintained.

Although there has been no attempt to treat the building acoustically, only a partial penalty was given in this category, as the design of the building seems to help keep noises at a minimum. As this is a one-floor building plus a basement, the only stairways

are those leading to and from the basement. These are adequate in number and size. The corridors, too, are adequate for the size of the school. Basement areas, as previously noted, are used for a variety of pupil activities; therefore, this school was penalized heavily in this category.

Lewis

This elementary school, now used by pupils of the first six grades, was built in 1931. At the time, the architect and general contractor, as well as the lay and professional school people concerned, gave little or no attention to the orientation of the building for adequate daylighting.

It was not intended that additions should be constructed, therefore, this schoolhouse is not expansible. It is, however, flexible to the extent that there are only two classrooms plus an auditorium and stage, the auditorium being designed and equipped in such a way that it can be divided into two classrooms. This is seldom done, since there are only two teachers, each teaching pupils of three grade levels.

Since this is a one-story building, it need not be fire resistive; however, it is semi-fire resistive, built largely of brick and concrete with floors, stage, doors, and trim mostly of wood. Water has seeped through the exterior walls in several locations, causing paint to peel, and several interior walls have sagged, cracking the plaster. The roof is in excellent condition, providing a durable, weatherproof watershed.

One of the desirable features of this school is the provision of doorways directly from each classroom to the playground, in addition to those leading to the corridor. Exits from the auditorium were in poor repair, and the lock on one door was not functioning, permitting that door to be opened from the outside at any time. None of the exit doors is provided with automatic locks or panic bars.

The condition and appearance of the building were found to be quite inferior, owing in large part to the negligence of the custodian, who on some days does not even make an appearance at the school. Even when he or his wife does go to the school, they usually limit their efforts to a minimum cleaning routine in the classrooms and corridor.

The Lewis school is not acoustically treated; the fenestration, too, is not satisfactory, being unilateral with wide mullions. In regard to internal structure, the stairways, corridors and lobbies, basement areas, and the attic, if any, were evaluated for each school. At Lewis, the stairways from the stage to a corridor and from the corridor to the outside are wooden. The corridor, itself, is poorly lighted and not acoustically treated. Although the basement is not used for pupil activities, a heavy penalty was given because of the excessive dirt, cobwebs, and need for redecoration.

Mt. Orab

Natural light in most of the rooms, corridors, and other areas in the Mt. Orab school is very inadequate due, in part, to the lack of attention given to the orientation of the original structure in 1907,

and to the subsequent additions in 1927 and in 1936. In at least one item evaluated, namely, placement of masses and areas for convenience and beauty, this school is the poorest in Brown County. To go from the first addition to the second, it is necessary to go through either the gymnasium or the industrial arts shop, or use an outside walk, a feature which is especially disturbing between classes when pupils are changing classrooms, as they do at Mt. Orab.

This school house certainly is not designed for expansibility. It has been demonstrated at least two times, however, that additions can be made to the building, although the resulting design is not pleasing and the service systems do not meet the increased loads adequately. Indeed, this building is an architectural conglomeration, a fact not always apparent to the casual observer who sees only the pleasing form of that part of the structure which faces U. S. 68.

The original portion of the school, although it has a brick exterior, is not fire resistive. The stairways leading to the second floor and to the basement are wooden, as are the classroom and corridor floors. The foundations of the original structure and the two additions appear to be strong and stable, and there are no signs of water damage in basement areas. The height of the two additions is quite satisfactory, but the original structure, being multi-story and non-fire resistive, is not in keeping with safety recommendations.

Although virtually all of the walls are strong, airtight, and watertight, they do need redecoration, especially in the original structure, which is now used by elementary school pupils exclusively.

Interior walls are load bearing, making it impossible without radical and expensive alteration to make changes in the interior, such as enlarging or reducing the size of rooms to meet changing needs.

The roof is in good condition, having been repaired several times. Entrances and exits are adequate; however, a penalty was given in this category because of outside fire escapes on the original portion of the building. The appearance of the school would be enhanced if the doors and window frames were painted.

There is no acoustical treatment anywhere in the building. This deficiency is especially noticeable in the gymnasium, which, acoustically at least, is the poorest room in the county for pupil use.

Concerning the category of internal structure, it has already been noted that several stairways are wooden; one of these wooden stairways does not lead directly to an exit. The corridors of this school are poorly arranged; in fact, they appear to be a "maze." In addition, they are noisy, and in some cases are not well lighted.

Full penalty was given to the Mt. Orab school because of the condition and use of the basement areas, classrooms, toilets, and storage spaces being located there. One classroom, used for music instruction, has a seven-foot ceiling and is for that reason, if for no other, thoroughly unsuitable as a classroom. There is no attic space being used either for storage or for pupil activities.

Ripley Elementary

This elementary school building, constructed in 1915, was not

oriented to provide adequate natural light of proper quantity and quality. The corner rooms have bilateral fenestration, but light admission is not well controlled. The basement locations of toilets and playrooms preclude adequate daylighting there.

Even if the building were designed for expansibility, the site limitations described in Chapter VI would prevent further expansion. The structure is not flexible, either, inasmuch as the interior walls are load bearing. Because of these deficiencies, full penalty was given in the category of educational plan and utilization.

The exterior walls of the building are made of brick, but the interior contains much wood; especially is this true of the floor and stairways. In addition to being a fire hazard, certain of these wood surfaces are in poor condition. One item especially noted was a stairway handrail with splinters.

The foundations continue to be waterproof and apparently are properly drained. The height of the two-story building is quite satisfactory from a design viewpoint. However, a multiple-story schoolhouse should be fire resistive. At the time of the building evaluation, the roof was in need of repair in one area. The principal stated that this minor repair work was to be done without delay.

Exterior walls appear to be in good condition. The interior bearing walls, however, have in several cases dropped about one inch, causing the plaster to crack. Most of the walls and ceilings are badly in need of repair and redecoration. As previously noted, the floors are wooden, and, of course, oil soaked. The only satisfactory way to

correct this condition would be to replace these wooden floors with a more suitable material. Such a procedure is not recommended in this case, however, as a new school should be built in Ripley to meet the needs of all pupils of elementary school age there.

Entrances and exits are in good condition. The building was, however, penalized in regard to this item because certain of the fire escapes are of the outside type. The condition and appearance of the building should be improved by painting, especially around the windows.

Control of sound evidently was not given consideration in the design of the building; therefore, hearing conditions are very poor throughout the school. Fenestration is also poorly designed, and glare from the windows is most annoying to the pupils and teachers at times.

This Ripley school was penalized heavily in the category of internal structure because of wooden stairways in a multiple-story building, poorly lighted corridors with blind ends remote from exits, and for the location of toilets and play areas in the basement. No attic space, however, is used for storage or for pupil activities.

Ripley High School

This fire resistive structure, erected in 1932, was not oriented so as to provide adequate natural light for all the educational functions that take place there. Most of the rooms are unilaterally fenestrated without regard to exposure and the windows in toilet rooms have translucent glass, reducing the healthful effects of sunlight in those locations.

This high school building was not planned to permit maximum utilization, most of the rooms being of the same size and used for large and small classes. It was well constructed of the best materials and is free from hazards under normally anticipated conditions.

This schoolhouse is attractive and pleasing, well suited to the community it serves. The foundations are strong, stable, and properly waterproofed and drained, and the height of the two-story building is in proportion to the type of construction. All walls and floors are in good condition. The roof provides a durable weatherproof watershed, is properly flashed and drained, and is in good repair. Entrances and exits are adequate in number, size, and type, and there are no outside fire escapes. Being clean, well-painted, and in good repair, the building reflects the excellent care it has been given through the years. As has been customary in the past, little or no attention was given to sound control when this schoolhouse was designed and constructed, nor has acoustical treatment since been added.

Penalties were given in the category of internal structure for the following reasons: stairways from the second floor to the first do not lead directly to exits, corridors and lobbies are poorly lighted, and basement areas are used for locker rooms and showers in connection with the physical education and athletic programs. There is no attic space in the building.

Russellville

The two-story schoolhouse at Russellville, used by both elementary and high school pupils, is not oriented to provide adequate natural light for the educational program there. The arrangement of the building does not lend itself to convenience, the toilets and gymnasium being poorly located in relation to other facilities.

It is questionable whether or not the present service systems would accommodate an expansion of facilities. Although architects who have examined the building state that these service systems would be adequate in the event an addition were built, experience at the school, according to the principal, indicates that the present heating and electrical systems are even now inadequate at times.

The older portion of the building is not fire resistive, yet is two stories high. Except for this feature, the materials and workmanship are quite adequate. Although not especially attractive, this building is suited to the community it serves. There is an auxiliary building, however, that has been condemned for over five years, yet continues to be used for industrial arts and music education.

The foundations of the main building are strong, stable, and properly waterproofed and drained. The height of the building is not satisfactory when one considers that a portion of this two-story structure is not fire resistive. Most of the walls and ceilings are in good condition, but are badly in need of redecoration. The ceilings should be painted white and the walls in appropriate pastels. Classroom and corridor floors in the older portion are wooden. They are,

however, well cared for. The roof is in good condition, providing a durable weatherproof watershed. Entrances and exits are adequate in size and number, are properly located and in good condition. The exterior of the building needs attention, especially those areas that require painting. Since there has been no effort to condition the building acoustically, reverberations are quite annoying especially in the gymnasium. Fenestration is of the typical unilateral type with plain glass panes which are sources of glare.

Several of the stairways are wooden and do not lead directly to exits. Corridors and lobbies, in addition to being noisy at times, are badly in need of redecoration. Basement areas are not used for any pupil activities, and there is no attic space used for storage purposes.

Sardinia

Light sources in the Sardinia school do not vary with the exposure of the classrooms and other facilities, and, the basement location of the toilets prevents adequate daylighting there.

The original structure, erected in 1920, was expansible, and a gymnasium-auditorium was added in 1936. The service systems usually accommodate the present plant, but would not satisfactorily serve any further expansion. In addition, the interior walls are load bearing, making the building inflexible.

Although the exterior walls of the building are brick, wood predominates in the interior construction, especially in the older portions. The gymnasium appears to be in excellent condition, but some

difficulty has been encountered because of water seeping through the masonry walls. In regard to form and architecture, this building received no credit in the evaluation of this item because of the poor condition of wood floors, lack of acoustical treatment, and because of the basement location of the industrial arts shop, cafeteria, home economics suite, and toilets.

Foundations apparently are strong, stable and properly waterproofed and drained, and the roof also is in good condition. The height of the two-story building, although not displeasing, is out of proportion to the type of construction, being non-fire resistive. Walls and floors are in need of repair. There is some peeling of paint on walls and ceilings, while several floors have humps, holes, and worn spots.

Penalties were given in the category of entrances and exits because of outside fire escapes leading from the second floor, and because of the absence of panic bars on several exit doors. Window frames and doors in need of paint resulted in further penalties in regard to appearance. There is no acoustical treatment, and fenestration is utterly inadequate, **plain** glass being used without regard to exposure.

The main stairway between the first and second floors is too wide to be without a center handrail. The corridors and lobbies are dark and noisy, and do not accommodate lockers for the pupils, who are forced to use space in their homerooms for storage of outdoor clothing and books. As previously stated, basement areas at Sardinia are used for a variety of pupil activities. Attic space, however, is not used

for pupil activities or for storage.

Scott

When this fire resistive elementary school was erected in 1935, little or no attention was given by the architect to orientation for the provision of adequate natural light; and the placement of the cafeteria and toilets in the basement made healthful day lighting impossible in those facilities.

Although it was originally planned that this building would be expanded vertically, the poor quality of the materials and workmanship at the time of construction has caused the school authorities to alter the original planning. It would be impractical to erect a second floor on such a poorly constructed ground floor. The foundations, too, are in bad condition as evidenced by crumbling, cracks, and the "boiling up" of water in the basement corners during rain storms. The height of the building is in proportion to the type of construction, which at present consists of one floor plus a basement.

Exterior walls are in need of pointing and waterproofing, while interior walls need to have several cracks repaired before redecoration. The original roof had been improperly constructed, necessitating recent rebuilding. Now a durable weatherproof watershed is provided. All of the entrances and exits, except the main one in the front, operate easily and are properly equipped. There has been no attempt to treat any of the rooms or passageways acoustically, and unilateral fenestration is employed throughout the building, regardless of exposure.

The only stairways incorporated in the building connect the first floor with the basement. These are fire resistive and of proper width. In addition to the deficiencies noted already concerning the basement, the cafeteria and toilets are located here. There is no attic space in the building.

St. Martin

The St. Martin building was constructed by the Roman Catholic Church in 1894 and was purchased at a later date by the local board of education. It is poorly designed, particularly with reference to orientation for the provision of adequate natural light, nor is it expansible or flexible. Even if it were, it would not be advisable to add to such an old and poorly designed non-fire resistive building.

Although the exterior walls are of brick, much of the interior is of wood, including the stairway connecting the first and second floors. The foundations are strong and stable, but a sump pump is required in the furnace room to keep it properly drained. The height of the building is out of proportion to the type of construction, this being a multiple-story building, yet not fire resistive.

The interior walls and ceiling have been redecorated recently; however, the ceilings should have been painted white instead of cream. This one change would add much to the quantity of usable daylight in the classrooms. The oilsoaked floors are dark in color and quite unattractive.

The roof is in good condition and provides a durable weather-

proof watershed. In regard to entrances and exits, partial penalties were given because of an outside fire escape for the second floor, and the operating difficulty of a rear exit door.

Outside appearance would be improved by the application of paint to doors, jambs, and window frames. There has been no attempt at sound control, and fenestration does not vary with regard to exposure.

No credit was allowed in the evaluation of stairways because they are wooden and do not lead directly to exits. Corridors are not satisfactory, chiefly because they are too narrow to properly accommodate pupil traffic and the clothing hangers on the corridor walls. The only basement area is a small room provided for the furnace. Attic space is not used for any purpose.

St. Michael

St. Michael, although a public elementary school located in Ripley, is not owned by the local board of education, but is leased for a nominal sum each year from the Roman Catholic Church. The four teachers are Sisters, and most, if not all, of the pupils are of the Roman Catholic faith. The building is located on a hillside and daylight is considerably reduced because of an adjacent hill on the north side of the school.

Expansibility and flexibility apparently were not considered when the building was designed. Had they been, expansibility would be a real problem because of the very definite site limitations as stated in Chapter VI.

It is not a fire resistive structure, much of the interior being of wood. Especially hazardous is the single wooden stairway leading to and from the first and second floors. Except for this excessive use of wood, the St. Michael school is well constructed, the foundations being strong and waterproof, the roof being in satisfactory state of repair, and the condition of the walls, both exterior and interior, being in excellent condition. The height of the building is out of proportion to the type of construction, this being a non-fire resistive structure. Only one of the four classrooms has been redecorated recently; the others, as well as auxiliary rooms, are badly in need of redecoration. In regard to entrances and exits, the chief reason for penalties was the inadequate number, there being only one entrance and exit, except for a basement door.

Fenestration is inadequate, being of the unilateral type without regard to exposure. No attention was given to acoustics at the time the building was erected and there has been no acoustical treatment since.

In the category of internal structure, penalties were given for wooden stairways; inadequate number of stairways; small, poorly lighted corridors; and for the basement location of a play and lunch room and a toilet for boys. No attic space is used for storage or for any pupil activity.

Summary

In the category of placement, the highest score of any of the

buildings is that arrived at in the evaluation of the Jackson school. This score is only five out of a possible ten, which is interpreted as borderline. The next highest score is four, interpreted as generally poor, and is allotted to four schools, Decatur, Fayetteville, Georgetown High, and Ripley High. None of the school buildings has a score of three, interpreted as very poor, but five, namely, Eagle, Green-Sterling, Hamersville, Scott, and St. Martin, have a score of two, interpreted as inadequate. Georgetown Elementary and Lewis have a score of one, interpreted as obsolete, while the remaining schools have no credit, which is interpreted as thoroughly unsuitable.

The Green-Sterling building is rated the highest in the category of educational plan and utilization with a score of twelve out of a possible twenty. Even this score is interpreted as sub-satisfactory. The next highest is Ripley High with a score of eight, interpreted as generally poor. Fayetteville follows with a score of four, which is interpreted to be inadequate. Two buildings, those of Jackson and Scott, have a score of two, or obsolete, while the remainder have no credit and are rated as thoroughly unsuitable.

In the evaluation of the type of construction and materials of the buildings, Aberdeen, Fayetteville, Hamersville, Jackson, and Ripley High are rated as excellent; Georgetown High is satisfactory, Green-Sterling sub-satisfactory, Decatur generally poor, Scott very poor, and all the rest are thoroughly unsuitable. Concerning form and architecture, the ratings range from generally poor downward, Fayetteville, Hamersville, Jackson, Ripley High, and Scott having the generally poor evaluation.

The foundations of most of the school buildings were found to be in excellent condition. Consequently, they were evaluated accordingly. Only three schools did not receive the rating of excellent for this item, Decatur's evaluation being sub-satisfactory, and that of Green-Sterling and Scott being thoroughly unsuitable. In regard to height, twelve schools are evaluated as excellent. The other seven have lower ratings because it was thought that their height was too great for their non-fire resistive construction. These seven schools are Eagle, Georgetown Elementary, Higginsport, Mt. Orab, Russellville, Sardinia, and St. Michael.

Fayetteville is the only school to be allotted the score of seven, interpreted as excellent, for its walls and floors. Aberdeen is second, with a score of six, interpreted as satisfactory. Decatur and Jackson follow with a score of five, which is also interpreted to be satisfactory. The walls and floors of Green-Sterling are next with an evaluation of borderline. The remaining schools are evaluated from generally poor to thoroughly unsuitable in this item, seven of them having no credit allotted to them.

Only two schools are penalized because of the condition of their roofs, all of the others being evaluated as excellent. The roof of the Green-Sterling school is evaluated as sub-satisfactory, while the roof of the Ripley Elementary school is considered to be obsolete.

No deductions were made for the entrances and exits of the following seven schools: Aberdeen, Decatur, Fayetteville, Georgetown High, Hamersville, Ripley High, and Russellville. Jackson was allotted

a score of five, or sub-satisfactory; Eagle, Mt. Orab, and Scott received a score of four or borderline; and the remaining schools are evaluated as inadequate, obsolete, or thoroughly unsuitable in this category.

The condition and appearance of six schools, Aberdeen, Decatur, Georgetown High, Hamersville, Jackson, and Ripley High are excellent, the remaining schools being either obsolete or thoroughly unsuitable in these respects. In no instance were acoustical treatment and fenestration found to be satisfactory in any of the public school buildings in Brown County, virtually all of the evaluations being obsolete or thoroughly unsuitable.

Included in the general category of internal structure are stairways, corridors, basements, and attics. Aberdeen, Fayetteville, Jackson, and Scott were not penalized in the stairway item. Ripley High is next best with an evaluation of satisfactory; then Hamersville and Sardinia follow with an evaluation of sub-satisfactory; Decatur, Georgetown High, Lewis, and Ripley Elementary were allotted a score of ten, or generally poor, in the stairways item; while the remaining schools ranged from inadequate to thoroughly unsuitable. Only two schools, Fayetteville and Jackson, were allotted the highest score for their corridors. The next highest score, eleven out of a possible twenty, or borderline, was allotted to Georgetown High, Hamersville, and Lewis. The evaluations of the remaining schools in this item range from generally poor to thoroughly unsuitable. Two schools, Hamersville and Russellville, were not penalized for their basements. The next highest

evaluation, however, is sub-satisfactory, the rating allotted to Higginsport, Ripley High, and St. Martin. The basement evaluations of the remaining schools range from generally poor to thoroughly unsuitable, ten of these schools being evaluated at the lowest level. None of the schools was given a penalty because of the use or condition of attic space.

The highest possible score in the building evaluation is one hundred and seventy. The Fayetteville building has the highest evaluation, a score of one hundred and nineteen, interpreted as satisfactory. The Jackson building follows closely with a score of one hundred and seventeen, which, however, is in the sub-satisfactory evaluation, as are the buildings of the Hamersville and Ripley High schools. Aberdeen has an evaluation of borderline; Decatur and Georgetown High, generally poor; Green-Sterling, Lewis, and Scott, very poor; Eagle, Higginsport, Russellville, Sardinia and St. Martin, inadequate; Georgetown Elementary, Mt. Orab, Ripley Elementary, and St. Michael, obsolete.

CHAPTER VIII

EDUCATIONAL ADEQUACY OF THE SERVICE SYSTEMS

The service systems of each public school in Brown County were evaluated according to the criteria of the Guide for Evaluating School Buildings described in Chapter II. These criteria are listed in Appendix E. Table 15 shows the possible score in each category of the service systems evaluation, the possible total score, and the scores allotted to each of the nineteen schools in their service systems evaluation. The score for each school in each category was arrived at by making deductions, if appropriate, from the possible score, these deductions being made at the time of the service systems evaluation, and the reasons for the deductions written in the spaces provided for that purpose in the guide. Table 16 shows the interpretation of these scores. The evaluations of the service systems follow in the alphabetical order of the schools:

Aberdeen

The heating and ventilating system of the Aberdeen school provides automatically controlled heat as required by weather conditions. There are several evidences of leaking pipes, however, and a number of the thermostatically controlled variable-phase electric motors in the heating units are in need of repair. There are no provisions for mechanical ventilation in the science rooms and shops, and there is no control over the relative humidity of the air in the classrooms or elsewhere in the school.

TABLE 15

SCORES ALLOTTED TO EACH SCHOOL IN THE SERVICE SYSTEM EVALUATION

Name of School	Score in Each Category of the Service System Evaluation							Totals
	Heating and Ventilating	Artificial Lighting	Water Service	Toilets and Sewers	Fire Protection	Electrical System	Other Mechanical Systems	
(Highest Possible Score)	75	20	30	40	25	25	10	225
Aberdeen	25	0	24	0	13	15	10	87
Decatur	0	0	22	9	13	17	10	71
Eagle	0	0	20	0	0	7	0	27
Fayetteville	0	0	16	0	10	16	10	52
Georgetown Elementary	0	0	16	0	0	5	0	21
Georgetown High	25	0	24	24	13	18	2	96
Green-Sterling	0	0	14	1	0	10	0	25
Hamersville	45	12	24	0	21	20	10	132
Higginsport	5	0	24	18	0	18	10	75
Jackson	15	0	14	0	0	12	0	41
Lewis	0	0	14	0	0	5	0	19
Mt. Orab	0	0	14	0	0	16	10	40
Ripley Elementary	25	0	16	8	15	12	10	86
Ripley High	35	0	26	28	11	12	10	122
Russellville	0	12	18	0	0	10	0	40
Sardinia	0	20	24	0	0	16	10	70
Scott	0	0	18	5	11	11	0	45
St. Martin	0	0	22	0	0	20	10	52
St. Michael	0	0	14	0	0	20	0	34

TABLE 16

INTERPRETATION OF SCORES IN THE SERVICE SYSTEM EVALUATION

Score Interpretation	Category of Service System Evaluation							Totals
	Heating and Ventilating	Artificial Lighting	Water Service	Toilets and Sewers	Fire Protection	Electrical System	Other Mechanical Systems	
Maximum Possible Score	75	20	30	40	25	25	10	225
Excellent	67.5	18	27	36	22.5	22.5	9	202.5
Satisfactory	52.5	14	21	28	17.5	17.5	7	157.5
Sub-satisfactory	45	12	18	24	15	15	6	135
Borderline	37.5	10	15	20	12.5	12.5	5	112.5
Generally Poor	30	8	12	16	10	10	4	90
Very Poor	22.5	6	9	12	7.5	7.5	3	67.5
Inadequate	15	4	6	8	5	5	2	45
Obsolete	7.5	2	3	4	2.5	2.5	1	22.5
Thoroughly Unsuitable	0	0	0	0	0	0	0	0

Artificial illumination is provided by incandescent globe-covered lamps. There are four to six of these fixtures in each room, providing inadequate light of poor quality. This kind of lighting is not economical as compared to the efficiency of modern fluorescent fixtures. Criteria for adequate lighting are in Appendix E.

Water service is quite adequate, providing an ample supply of hot and cold water to all points of use. The handwashing facilities are not provided with mixing faucets which mix the hot and cold water and dispense it at the proper temperature. Few schools have fixtures of this type, but their need is recognized, particularly for pupils at the elementary level.

Aberdeen was heavily penalized because of the toilet and sewer system, largely for the absence of toilets on the first floor, location of toilets in the basement, unsanitary condition of a number of the fixtures, and poor ventilation in the toilet rooms. Criteria for a modern toilet and sewer system are in Appendix E.

Concerning fire protection, Aberdeen school is quite safe, although there is no automatic equipment for the detection or control of fires. The building is of fire resistive construction and the passageways on the two floors and basement levels should provide safety for an orderly exit of the occupants. Criteria in regard to fire protection are also in Appendix E.

The electrical system provides proper current wherever needed, and conforms to codes, legal requirements, and insurance standards. Wiring and equipment are safe to use, are in good condition and easily

maintained. Clocks and bells provide accuracy of timing, suitable audibility and automaticity, and the system could be expanded if the need should arise. The fire alarm system provides for positive alarms from convenient stations by simple manual operation. Since the need for telephones is not great at Aberdeen, the one phone in the principal's office apparently meets the requirements of the school in this respect, except for the pupils and any visitors for whom a coin telephone should be provided. The guide recommends that schools have a centralized intercommunication system among classrooms, service rooms, and offices, and in larger schools have additional selective ringing and speaking intercommunication among offices. None is provided at Aberdeen.

The public address and audio-visual systems at Aberdeen apparently meet the needs of the school. However, the only public address system is that provided in connection with the motion picture set. The audio-visual program is not well developed, the only electrical equipment being the motion picture projector and speaker. The teachers are planning an expansion for this program in the near future.

Decatur

The Decatur school building was allotted no credit for its heating and ventilating system, chiefly because of the non-automatic features of both heating and ventilating equipment, lack of control of relative humidity, and absence of provision for special ventilation in the kitchen, in the shop, and in the science laboratory.

Artificial lighting is grossly inadequate, consisting of globe-enclosed incandescent lamps, usually four to six in each classroom. Water supply is adequate, but there has been some difficulty in providing an ample supply of heated water. The installation of an electric heater is being planned and should alleviate this deficiency. Drinking fountains are provided in the corridors; they are not recessed, however, and consequently subtract from the effective width of the corridors.

In regard to toilets and sewers, the Decatur building was economically planned, the toilets being located so as to serve those using the gymnasium as well as those using the regular classrooms. The two toilet rooms, one for boys and one for girls, are also used for lockers in connection with the physical education program. The ventilation of these rooms is totally inadequate.

As this building is of fire-resistive construction and is one floor plus a small basement, it is quite safe, although there are no exits leading directly to the out-of-doors from each classroom. A penalty was given to the Decatur building for one item, namely, the wooden and poorly lighted stairway connecting the basement and first floor. Further, this basement room is used for industrial arts instruction.

In the electrical systems category, Decatur was not penalized for lights and power, clocks and bells, or fire alarm system, but deductions were made for the telephone and public address system. There is just one phone for the school, no intercommunication system, and the public address system is the type used in connection with the motion

picture equipment rather than a permanent installation.

Eagle

The Eagle school building did not receive any credit in the evaluation of its heating and ventilating system. There are several reasons for this low score: heating and ventilation are not automatically controlled, there is no control of relative humidity, there is no special ventilation in rooms normally requiring it, and the system is not expansible, sometimes being overtaxed in extremely cold weather.

Artificial illumination is very poor, consisting of four ceiling-hung incandescent lamps in each room now used as a classroom. Some of these lamps have globes and others do not. Two rooms on the second floor, formerly used as classrooms, have four-tube fluorescent fixtures, which are not adequate or of proper design, but are an improvement over the former fixtures. These two fixtures could be transferred to a room now being used by pupils.

The water supply for this small elementary school is apparently adequate, water for drinking and for cooking being piped under pressure from a well, and water for the toilet and sewer system being piped from a small reservoir which was especially constructed for this purpose. Drinking fountains in the corridors are well located but are not recessed. In addition, there is a drinking fountain located in each of the toilet rooms, one for each sex, in the basement. There is no mechanical ventilation for these rooms, and the window ventilation is not satisfactory.

Since the Eagle building is not fire resistive and is multiple story, it is a fire hazard. The main stairway between the first and second floors is wooden; however, the exits used as fire escapes are fire resistive and would provide adequate protection in event of fire. The only fire extinguishers available are of the soda-acid type. A carbon dioxide unit should be provided, especially in the kitchen.

The electrical system is obsolete. For example, outlets have not been installed in the classrooms, making it virtually impossible for the pupils to have the benefits of an effective audio-visual program. There are no clocks or bells, no telephones, and no public address or audio-visual system. The fire alarm system apparently provides for positive alarms by simple manual operation.

Fayetteville

The heating system at Fayetteville is fired by a stoker which is automatic. Ventilation, however, is not controlled automatically. This accounts for the complaints of teachers about the stuffiness of the rooms at the time of the service systems evaluation. The present heating and ventilating system is not expansible. Actually, it does not adequately serve the existing plant, particularly in very cold weather.

Artificial lighting, too, is obsolete at Fayetteville, illumination being provided by globe-enclosed incandescent lamps. Consideration should be given to replacing these lamps with modern light sources.

Water heating equipment has been incorporated recently, making

both hot and cold water available for the personal use of the pupils and staff. For a time the inside toilets were not usable because of an inadequate sewage disposal system. This deficiency has been corrected, however, and there are now quite adequate facilities for pupil use, except in connection with the gymnasium, for which the only toilet facilities are those in the main section of the building.

Construction of the school is of fire-resistive materials and provides safety for all travel passages, both vertical and horizontal. The fire alarm system is of the manual type and should be replaced with an automatic alarm. Fire fighting apparatus is minimal and would not provide sufficient means of gaining quick control of large fires. Safety of personnel takes priority over saving the building, and the Fayetteville building is a safe school plant.

In the category of electrical systems, the lights, power, clocks, and bells were found to be excellent in type and condition, but there is no intercommunication system. The fire alarm is manual, while electric systems are more desirable today. There is only one phone for the school, the greatest need for an addition being in the dietary suite.

The public address system is used in connection with the motion picture equipment. This is not an ideal arrangement, but seems to meet the needs of the Fayetteville School. The audio-visual equipment includes an opaque projector, motion picture projector, slides, maps, and charts.

Georgetown Elementary

The hand-fired heating system of this elementary school is not automatic in any of its features and it is not designed for expansibility. Ventilation is poor, also, it being necessary to raise and lower windows to control ventilation. Window ventilation can be quite satisfactory if properly designed to control the flow of air without excessive drafts. However, such is not the case in this building or in any building evaluated in this study of the public schools of Brown County.

Artificial lighting is thoroughly unsuitable, being provided by low-wattage incandescent lamps, which are not economical and are not providing proper illumination for the kinds of activities that take place in elementary classrooms.

As for the water system, only cold water is provided, drinking fountains are not recessed, and handwashing facilities are provided in the toilet rooms only. These rooms are in poor condition and are located in a basement which is comparable to a dungeon. They are poorly maintained, and ventilation and natural lighting are practically non-existent.

Concerning fire protection, this building is undoubtedly the worst fire trap in the school system. It is not fire resistive, yet is multiple story. The design of the wooden stairway and the stairwell in the center of the building, plus the skylight at the very top of the building above the stairwell, would cause this space to serve as a perfect

flue in event of fire. Soda-acid fire extinguishers are the only fire-fighting apparatus provided. These are suitable for extinguishing small fires, but are usually worthless once a fire has a good start. Criteria for fire fighting apparatus are in Appendix E.

A number of deficiencies were noted in the electrical systems. There are no electrical outlets in the classrooms; the clocks and bells were out of order at the time of the evaluation; and there are no provisions for intercommunication, public address, or audio-visual systems.

Georgetown High

The heating system of this six-year high school located in the county seat of Brown County is adequate in regard to heat output, but is not automatically controlled. There are unit ventilators in the classrooms and offices. However, there is no special ventilation in the industrial arts shop or in the science laboratories, and there is no system of humidity control for any part of the building.

Artificial illumination is provided by incandescent bulbs, which are enclosed in white globes. The light sources are inadequate in number and in the quantity of light they provide. Fixtures of this kind are inefficient when compared with modern fluorescent sources.

The water system provides an adequate supply of hot and cold water to all points of use. In this connection, a penalty was given to this school for one reason, namely, the drinking fountains are not recessed, thus reducing the effective width of corridors. Penalties were given in the toilet and sewer system category because toilets are

located on the lower floor only, with the exception of one fixture in the health clinic suite and one in connection with the principal's office.

Construction of the building is fire resistant and gives adequate protection around spaces involving special fire hazards. For example, a fire door protects a corridor from the furnace room. Although all travel passages, both vertical and horizontal, should provide absolute safety, there is one place where this is not the case in this building. At the lower level connecting the original portion with a later addition, a poorly lighted corridor section with a short stairway at either end represents a potentially hazardous situation which should be corrected. Firefighting equipment consisting of soda-acid extinguishers and water hose is adequate in this case, since the building is fire resistive and the local fire department is nearby.

In the electrical systems category, full credit was allotted for lights and power, clocks and bells, and the fire alarm system. Full penalty was given for the telephone item, as there is just one phone, which is located in the office, and there is no centralized intercommunication system. The motion picture projecting equipment is used at times as a public address system. Audio-visual equipment is not used to any great extent in the educational program, although several of the teachers interviewed felt that their teaching would be more effective if multi-sensory materials were used more extensively.

Green-Sterling

The heating system at Green-Sterling is stoker fired, but the stoker is not the industrial size required to fire a boiler for heating a school, and the boiler is not large enough to meet all requirements in cold weather. If the building were ever to be expanded, the stoker and the boiler would need to be replaced with equipment having considerably greater capacity. Ventilation, too, is unsatisfactory, there being no special ventilation in the kitchen.

Artificial lighting should provide adequate illumination without glare or shadows. This cannot be done with six globe-enclosed incandescent lamps in each classroom---the arrangement in this building.

Water supply is not adequate at all times, and there is no provision for hot water in the handwashing facilities, which are located in the toilet rooms only. Drinking fountains are well located but are not recessed, thus subtracting from the effective width of the corridors.

There are no special toilets for the use of dietary or custodial personnel, nor for the professional staff. Toilet facilities are provided for each sex in basement rooms, and in addition, in the health clinic suite on the main floor.

In the matter of fire protection there are several deficiencies. The building is only semi-fire resistant, and has several short stairways which are constructed of wood. However, since the building is one story plus a basement, there is little danger of injuries in event of fire, particularly if certain exit doors are made to operate more freely.

In the electrical systems category there is no penalty for lights and power, fire alarm system, or public address and audio-visual system. Full penalty was given for clocks and bells, since there is no automatic system. Bells are controlled by a **button**, manually operated by either the principal or custodian. There is only one telephone and no electrical intercommunication, resulting in the full penalty in this category, also.

Hamersville

The heating and ventilating system at Hamersville is automatically controlled and is in good operating condition. There is, however, one important deficiency in the ventilating system, namely, lack of special ventilation in the kitchen and cafeteria, resulting in the permeation of odors throughout the school building.

Hamersville was the first school in Brown County to be equipped with fluorescent light sources throughout. They were installed before much research had been carried on in public schools concerning this type of artificial illumination, and, as a result, the present exposed-tube fixtures are already outmoded. The lay and professional leaders at Hamersville were alert to the needs of the pupils and to progress in illuminating engineering. Now, however, they need to consider the problem of modernizing the lighting system.

Water supply is plentiful. Full credit was not allowed, however, because drinking fountains are not recessed into the walls and some do not have angle streams and mouth guards.

The toilet and sewer system is not as satisfactory as the water system. Contrary to best practice, drinking fountains are located in toilet rooms. There should be separate toilet rooms for the professional, dietary, and custodial staffs, but there are none. Further, the fixtures are dirty and are of a type that do not flush easily. In fact, all the toilets inspected needed flushing.

This is a fire-resistant structure, and, although two story, provides safety for the pupils. There is only one especially hazardous feature; the stairways from the second floor do not lead directly to exits.

There is no deduction in the evaluation for lights and power, clocks and bells, fire alarm system, or public address and audio-visual systems. There is a penalty, however, in the telephone system item because of the complete lack of a centralized intercommunication system among classrooms, service rooms, and the principal's office.

Higginsport

The heating plant was remodeled recently and new automatic stokers were installed. This remodeled system is capable of supplying sufficient heat in the coldest weather to be expected in this area, but room temperature is not thermostatically controlled. There is no provision for special ventilation in any of the rooms which normally require it, such as the industrial arts rooms, home economics suite, kitchen and cafeteria.

Artificial lighting is provided by incandescent sources, usually

four or six in each classroom. This is especially inadequate in the older portion of the building, which has ceilings that are over sixteen feet above the floor level.

In regard to water service, deductions were made for two reasons: the only handwashing facilities are in the toilet rooms, and the drinking fountains are not recessed into the corridor walls. Penalties were given in the toilet and sewer system category because there are no separate toilet facilities for teachers, custodial staff, or the public, and those that are provided are very poorly ventilated.

Because of the non-fire-resistant construction of the older part of the school, and because only one type of fire extinguisher is provided, namely, soda-acid, this school received no credit in the fire protection category. This penalty is justified partly because the old section of the school is multiple story and has wooden stairways.

There are no penalties for lights and power, clocks and bells, and the fire alarm system. There is a centralized intercommunication system, but there is only one telephone. The public address system is used in conjunction with the motion picture projecting equipment. This is far from ideal, but apparently meets the needs at Higginsport.

Jackson

The hand-fired boiler produces sufficient heat for this four-classroom school, although the temperature in each room is not automatically controlled. There is no control over the relative humidity of the air supplied by the ventilating system, and there is no special

ventilation in the kitchen, which is located in the basement.

The artificial light sources are globe-enclosed incandescent lamps, four to a classroom, and all four controlled by a single switch. Usually there are at least two switches so that lights can be turned on when needed on either side of a classroom.

Water service at Jackson does not include hot water, the pupils and others being required to wash with cold water in lavatories provided in the toilet rooms only. Drinking fountains are adequate in number, but are not recessed in the corridor walls. The toilet and sewer system has several faults, including the basement location of the toilets, poor lighting and ventilation of the toilet rooms, absence of fencing around the cesspool, and the presence of odors from the cesspool.

Construction of the Jackson building is fire resistant and provides safety for all travel passages. Although this building has but one floor plus basement, there is only one exit from each classroom, and that, of course, leads to the corridor. Even though it is fire resistant, this building, or any one-story school building, would be safer if an exit to the outside were provided for each classroom.

In the electrical systems category there are no deductions for lights and power or the fire alarm system. Full penalty was given for clocks and bells, since the equipment used is a push-button buzzer, and for the telephone system, since there is only one phone and no centralized intercommunication system. There is no need for a public address system,

but in a modern educational program there is need for a variety of audio-visual aids. The only mechanical equipment used in this school is the motion picture projector, and there is no provision for darkening the rooms sufficiently to show pictures effectively.

Lewis

The hand-fired heating system is not automatic in any respect, nor are the dampers in the classrooms thermostatically controlled. Further, the air ducts and regulators in the classrooms are very dirty, and there is no control over the relative humidity of air supplied to the pupils.

Artificial lighting in each classroom consists of four globe-enclosed incandescent lamps. Inadequate as they are, a thick coat of dust prevents maximum efficiency of these fixtures.

Water is supplied to only one point of use, a wash basin and drinking fountain combination in the corridor, and cold water only is provided here. As for the toilet and sewer system, the Lewis school was allotted no credit because outdoor toilets only are provided.

The building is not fire resistant and the safety of travel passages is questionable, since the corridors and inside stairways are of wood. It is, however, one story, and exits lead from each classroom to the outside, making this a safe building for pupil occupancy.

In the electrical systems category, penalties were given for absence of outlets in the classrooms, no provision for bells, no telephone, and no public address or audio-visual system.

Mt. Orab

The stoker-fired heating system in the Mt. Orab school has automatic features at the boiler, but not at the registers in the spaces to be heated. It does not meet all load requirements adequately in severe weather now, and is not expansible without replacement of much of the present equipment. There is no special ventilation in rooms normally requiring it, and in several of the rooms that are ventilated the registers are in need of cleaning.

Artificial lighting is very inadequate, being provided by low-wattage globe-enclosed incandescent lamps. Hot water is supplied to the cafeteria, but not to other points which should have it. Hand-washing basins, provided in the toilet rooms only, have cold but no hot running water. Drinking fountains are apparently adequate in number, but they are not recessed and do not have angle streams and mouth guards.

Poorly lighted and poorly ventilated toilets for each sex are provided in the basement. There are no separate toilets for employed personnel.

In regard to fire protection, the Mt. Orab school is a poor risk. Much of the building, especially the original portion, is not fire resistant, being largely of wood construction and having wooden stairways. Although fire alarms in a school should all operate from one control, at Mt. Orab there are two alarms, both operated manually from separate controls. This deficiency could be corrected by installing an electrical fire alarm system.

In the electrical systems category, full credit was given for

lights and power and for clocks and bells. For the telephone system, full deductions were made, since there is only one telephone and no intercommunication system. Only partial credit was allotted for the public address and audio-visual equipment. The public address system is used in connection with the motion picture projector, and there is little in the way of audio-visual equipment, except the projector.

Ripley Elementary

This heating system is stoker fired and apparently meets the heating needs of the school quite satisfactorily, although temperatures are not controlled automatically in the rooms being heated.

Artificial illumination, except in the auditorium and in the principal's office, is furnished by incandescent bulbs which, in most cases, are globe enclosed. Fluorescent fixtures with "egg crate" louvers supply the artificial light in the auditorium and office. Pupils and teachers at this school voiced approval of the fluorescent sources. They hope that the classrooms can be equipped with them soon, or even better, that a new elementary school can be constructed and be furnished with modern and ample lighting.

Cold water is supplied in sufficient quantities, but there is no hot water, not even in the showers. Handwashing facilities are found only in the toilet rooms. Drinking fountains are not recessed, and those located in the basement are quite near the toilet room entrances.

As stated in Chapter VII, this school building has two floors plus a basement. Toilets should be provided on each floor, but in this

school they are in the basement only, and there are no separate facilities for employed personnel.

This structure is multiple story, yet not fire resistant. It is reasonably life safe, however, since when fire drills are held, and one was held during the building evaluation, all the occupants are outside the building within forty-five seconds. Soda-acid extinguishers and water hoses are available for fighting fires.

In the electrical systems category, there are no penalties for clocks and bells and the fire alarm system. A deduction was made for lights and power owing to the absence of electrical outlets in classrooms, the lack of an intercommunication system, and the unsatisfactory arrangement of the audio-visual system, which provides electrical equipment but fails to furnish outlets for its use.

Ripley High

The stoker-fired heating system provides ample heat even in the coldest weather. However, it is not automatically controlled by thermostats in each room, nor are the fans and fresh air intakes in the heating units automatically controlled.

Low-wattage globe-enclosed incandescent lamps provide artificial illumination, which by any current standard is very inadequate. Inadequate as they are, lights in corridors and classrooms are often turned off to save electricity.

Water service is ample, hot and cold water being supplied to all points of use. A penalty was given for only one feature--drinking

fountains are not recessed into the corridor walls, thus reducing the effective width of the corridors. The toilet and sewer system is quite satisfactory, although there are no special facilities for the teachers and other employed personnel.

Concerning fire protection, this building is fire resistant and is a life-safe schoolhouse. Deductions were made during the evaluation for stairways that do not lead to exits and for the manually operated fire alarm system. It was felt that an electrical system would be more appropriate for this school.

In the electrical systems category, a deduction was made for lights and power, since many of the light fixtures provide very little light and should be replaced with more efficient light sources; a deduction was made for the telephone system, since there is only one phone and no intercommunication system; and a penalty was given the public address system, since there is no permanent installation and it is necessary to use portable equipment in conjunction with the motion picture projector.

Russellville

The stoker-fired heating system is not automatically controlled from the heated areas, although ample heat is usually supplied except in the coldest weather when two classrooms and the gymnasium are difficult to keep at proper temperatures.

Fluorescent fixtures have been installed for artificial lighting, one fluorescent fixture taking the place of each incandescent lamp.

This is an improvement, but still inadequate when compared to the criteria in Appendix E.

Water is provided in ample quantity, but only hot water is available in the handwashing lavatories in the toilet rooms. A deduction was made for drinking fountains because they are not recessed.

Toilet rooms are located on the first floor only, and are markedly deficient in lighting, ventilation and satisfactory maintenance. There are no separate facilities for the employed personnel or for community use.

A portion of the building is not fire resistant and has a wooden stairway leading from the first to the second floor. Additional fire fighting equipment should be installed, since, at present, only a few soda-acid extinguishers are provided. Criteria for fire fighting equipment are in Appendix E.

The present electrical system is easily overloaded. Even the ventilating fans cause fuses to blow. Clocks and bells are automatic, providing accuracy of timing, and the system is expansible. Full penalty was given for the telephone system, since there is only one phone and no intercommunication system. There is no permanent public address system, and the audio-visual equipment consists of two pieces, a motion picture projector and a voice recorder.

Sardinia

The stoker-fired heating system provides ample heat except in severe weather when several rooms are uncomfortably cool. Although the

stokers are electrically controlled, temperatures in each classroom and office are not automatically regulated. Heating systems should be expandible to take care of increased loads, if additions are made to buildings. Since this heating system does not now meet all loads adequately, it is not expandible without considerable remodeling.

One hundred and eighty fluorescent fixtures with "egg crate" louvers have recently been installed throughout the Sardinia building, providing the occupants with modern artificial illumination.

Water supply is ample but there are not enough drinking fountains, and those provided are not recessed into the corridor walls. Poorly lighted and poorly ventilated toilet rooms are in the basement of the school building, while toilet and locker rooms with satisfactory light and ventilation serve the gymnasium.

In regard to fire protection this building is a poor risk, since it is not of fire-resistant construction and there are limited facilities for fighting fires, only soda-acid extinguishers being provided.

In the category of electrical systems there are no penalties for lights and power, clocks and bells, and the fire alarm system. No credit was allotted for the telephone system, since there is only one phone and no centralized intercommunication system. Partial credit only was allotted for the public address and audio-visual system, since there is no permanent public address system, the motion picture equipment being used for this purpose.

Scott

The hand-fired heating system is not furnished with automatic

controls, even the unit ventilators in each classroom being manually controlled. This kind of equipment has the advantage of requiring less maintenance than the thermostatically controlled variable-phase units, but air conditioning is often controlled by teachers or custodians who are not inclined or do not have time to make manual adjustments at the proper time to maintain optimum conditions.

Four incandescent lamps enclosed in translucent globes are the artificial light sources in each classroom. Compared to modern illuminating fixtures they are grossly inadequate.

Water supply is ample, but hot water is not available; nor are the drinking fountains recessed in the corridor walls. Two poorly lighted and poorly ventilated toilet rooms, one for boys and one for girls, are located in the basement. This location prohibits ease of supervision. There are no separate facilities for employed personnel or for community use.

Construction of this school building is semi-fire resistant. However, since it is only one story plus a basement, it is considered life safe. Soda-acid fire extinguishers are the only kind provided.

In the electrical systems category there are no penalties for lights and power, or the fire alarm system. There is no credit for clocks and bells, as the system provided is not automatic; nor is there any credit for the telephone system, since there is only one phone and it is not a private line. Only partial credit was allotted for the audio-visual system, as there are no electrical outlets in the classrooms and it is necessary to go to the cafeteria when aids employing electrical current are used.

St. Martin

The heating system is hand-fired and has no automatic features. There is no mechanical ventilation, and windows are raised and lowered to control the admission or exclusion of fresh air.

Artificial lighting is grossly inadequate, there being only two incandescent fixtures in each of five classrooms, and four in another.

Water supply is plentiful, but facilities for using it effectively have not been provided. There are drinking fountains, which are not recessed, and there are lavatories for handwashing, but indoor toilet facilities are not provided for the pupils. There is one indoor toilet on the second floor for the use of the six teachers, all of whom are women.

In regard to fire protection this structure is not very safe. It is multiple story, yet much of its construction is of wood, including the stairway connecting the two floors. Fire fighting equipment is inadequate, consisting of soda-acid extinguishers.

In the electrical systems category, there are no penalties for lights and power, fire alarm system, telephone system, or audio-visual system. There is no credit, however, for clocks and bells, since they are not automatic.

St. Michael

The heating system at St. Michael has no automatic features and is hand-fired. Ventilation is not mechanical and must be controlled by raising or lowering windows. Even in the cafeteria and toilet rooms

special ventilating equipment has not been provided.

Four globe-enclosed incandescent lamps provide artificial light to supplement daylight in each classroom. However, there is a tendency **not to** turn them on in order to conserve electricity.

Water supply is ample, but certain facilities for using it are inadequate. For example, there is one drinking fountain on each of three levels, but they are not recessed into the corridor walls and one of them, that in the basement, was out of order when evaluated.

A toilet room for boys is provided at the basement level, and one for girls on the first floor. There is none on the second floor. The four teachers, who are Catholic Sisters, have their own toilet facilities, since their living quarters are in the school building.

Only one stairway, a wooden one, connects the three floor levels, and there is but one means of egress from each floor. This is not a life-safe situation and could be corrected at least partially by installing a fire-resistant stairway.

There is no penalty for lights and power, clocks and bells, and the fire alarm system, and there is no credit for the telephone system nor for the audio-visual system. There is but one phone, located in the principal's office on the second floor, and there is no electrically powered audio-visual equipment.

Summary

The service systems of each public school in Brown County were evaluated according to the criteria listed in the Guide for Evaluating

School Buildings described in Chapter II. These criteria comprise Appendix E.

In the category of heating and ventilation, Hamersville has the highest score, forty-five out of a possible seventy-five. The interpretation of this score is sub-satisfactory. Ripley High is second with a score of thirty-five, which is interpreted to be generally poor. Three schools, Aberdeen, Georgetown High, and Ripley Elementary, have a score of twenty-five or very poor; Jackson a score of fifteen, or inadequate; Higginsport five, or thoroughly unsuitable; and all the rest have no credit, which is interpreted as thoroughly unsuitable.

All but three schools have no credit for artificial lighting. Sardinia has full credit of twenty points, or excellent, since well-planned fluorescent lighting has been installed recently; both Russellville and Hamersville have a score of twelve, or sub-satisfactory, since, although the light fixtures are fluorescent, they are not as adequate or modern as those at Sardinia.

Ripley High has a score of twenty-six, or satisfactory, for water service. Seven additional schools have scores which are interpreted as satisfactory. These are Aberdeen, Georgetown High, Hamersville, Higginsport, and Sardinia, each with a score of twenty-four, while Decatur and St. Martin have a score of twenty-two. Eagle, Russellville, and Scott are sub-satisfactory; Fayetteville, Georgetown Elementary, and Ripley Elementary are borderline; and Green-Sterling, Jackson, Lewis, Mt. Orab, and St. Michael are generally poor.

Ripley High is highest in the category of toilets and sewers with

a score of twenty-eight, or satisfactory. Georgetown High follows with a score of twenty-four, which is interpreted as sub-satisfactory. Next is Higginsport with a score of eighteen or generally poor, followed by Decatur, which was allotted a score of nine or inadequate. The toilet and sewer systems of the remaining schools are either obsolete or thoroughly unsuitable.

Only one school, Hamersville, is evaluated as satisfactory in regard to fire protection. Aberdeen, Decatur, Georgetown High, and Ripley Elementary are sub-satisfactory; Fayetteville, Ripley High, and Scott are generally poor, and the remaining eleven schools are evaluated as thoroughly unsuitable.

The electrical systems of five schools are satisfactory. These are Georgetown High, Hamersville, Higginsport, St. Martin, and St. Michael. The sub-satisfactory evaluation was allotted to five schools, also, namely, Aberdeen, Decatur, Fayetteville, Mt. Orab, and Sardinia. Six of the remaining nine schools, Green-Sterling, Jackson, Ripley Elementary, Ripley High, Russellville, and Scott, have scores that place them in the generally poor evaluation; while three, Eagle, Georgetown Elementary, and Lewis, are inadequate.

The highest possible score in the service systems evaluation is two hundred and twenty-five. The highest score for the service systems of the public schools in Brown County is one hundred and thirty-two allotted to Hamersville, and the second highest is one hundred and twenty-two allotted to Ripley High. Both of these scores are interpreted as borderline. Georgetown High has a score of ninety-six, or generally poor;

five schools, Aberdeen, Decatur, Higginsport, Ripley Elementary, and Sardinia, are very poor; three schools, Fayetteville, Scott, and St. Martin, are inadequate; six schools, Eagle, Green-Sterling, Jackson, Mt. Orab, Russellville, and St. Michael, are obsolete. The service systems of the two remaining schools, Georgetown Elementary and Lewis, are thoroughly unsuitable.

CHAPTER IX

EDUCATIONAL ADEQUACY OF THE CLASSROOMS

The classrooms of each public schoolhouse in Brown County, Ohio, were evaluated according to the criteria of the Guide for Evaluating School Buildings described in Chapter II. These criteria are listed in Appendix F. Table 17 shows the possible score in each category of the classrooms evaluation, the possible total score, and the scores allotted to each of the nineteen schools for its classrooms. The score for each school in each category was arrived at by making deductions, if appropriate, from the possible score. At the time of the building evaluation, the reasons for the deductions were written in the spaces provided for that purpose in the guide. Table 18 shows the interpretation of these scores.

Classrooms should be sufficiently large for the educational activity taking place in them. They should be numerous enough to accommodate the present pupil population as well as the population anticipated in the near future. Supplemental criteria in Appendix F suggest areas for classrooms, based on the needs of twenty-five pupils. These areas are:

1200 - 1400 square feet for a kindergarten

900 - 1000 square feet for an elementary classroom - primary grades.

TABLE 17

SCORES ALLOTTED TO EACH SCHOOL IN THE CLASSROOM EVALUATION

Name of School	Score in Each Category of Classroom Evaluation																	Totals		
	Regular Classrooms											Special Classrooms								
	Size and Number	Shape	Natural Light	Floors	Walls and Ceilings	Doors	Color Scheme	Chalkboards	Tackboards	Closets	Cloak Room	Type of Equipment	Shops	Laboratories	Kindergartens	Others				
(Highest Possible Score)	35	20	40	15	15	10	10	15	20	20	20	20	20	25	20	20	20	15	15	315
Aberdeen	0	12	12	12	15	10	10	7	20	20	20	20	20	15	12	0	0	0	0	165
Decatur	0	12	18	12	9	10	6	0	8	12	8	8	8	15	0	0	0	0	0	110
Eagle	11	8	10	3	12	4	6	0	8	8	8	8	8	5	0	0	0	0	0	95
Fayetteville	17	12	12	15	15	10	10	3	12	20	20	20	20	10	0	0	0	1	3	160
Georgetown Elementary	0	4	8	3	3	6	2	7	20	12	16	12	12	5	0	0	0	0	0	86
Georgetown High	11	8	8	9	6	10	4	1	20	12	20	12	12	10	8	8	8	8	15	158
Green-Sterling	0	8	10	9	15	6	10	1	4	4	4	4	4	5	0	0	0	0	0	76
Hamersville	0	8	8	15	15	6	10	7	20	20	20	20	20	5	20	20	20	0	9	183
Higginsport	0	0	10	6	15	6	10	0	8	12	8	12	12	5	4	0	0	0	0	84
Jackson	0	12	16	0	15	6	10	0	12	20	12	20	20	0	0	0	0	0	0	103
Lewis	0	8	10	3	6	4	6	0	12	0	12	0	0	5	0	0	0	0	0	66
Mt. Orab	0	4	10	6	6	6	2	0	4	8	20	8	8	5	0	0	0	0	0	71
Ripley Elementary	23	12	12	3	15	6	10	0	8	8	16	8	8	10	0	0	0	0	0	123
Ripley High	17	8	18	6	15	10	10	5	16	8	20	8	8	5	8	12	7	6	6	171
Russellville	0	12	16	3	15	8	10	1	8	8	12	8	8	5	0	0	0	0	0	98
Sardinia	0	8	10	3	15	6	10	0	8	12	14	8	12	5	0	0	0	0	0	91
Scott	0	8	22	6	6	6	4	1	4	4	14	4	4	15	0	0	0	0	0	90
St. Martin	0	0	8	3	3	10	2	0	4	4	0	4	4	5	0	0	0	0	0	39
St. Michael	0	8	10	3	3	10	2	0	8	12	12	8	12	5	0	0	0	0	0	73

TABLE 18
INTERPRETATION OF SCORES IN THE CLASSROOM EVALUATION

Score Interpretation	Category of Classroom Evaluation																
	Regular Classrooms												Special Classrooms				
	Size and Number	Shape	Natural Light	Floors	Walls and Ceiling	Doors	Color Scheme	Chalkboards	Tackboards	Closets Cases	Cloak Room Lockers	Type of Equipment	Shops	Laboratories	Kindergartens	Others	
Maximum Possible Score	35	20	40	15	15	10	10	15	20	20	20	25	20	20	15	15	315
Excellent	31.5	18	36	13.5	13.5	9	9	13.5	18	18	18	22.5	18	18	13.5	13.5	284
Satisfactory	24.5	14	28	10.5	10.5	7	7	10.5	14	14	14	17.5	14	14	10.5	10.5	221
Sub-satisfactory	21	12	24	9	9	6	6	9	12	12	12	15	12	12	9	9	189
Borderline	17.5	10	20	7.5	7.5	5	5	7.5	10	10	10	12.5	10	10	7.5	7.5	158
Generally Poor	14	8	16	6	6	4	4	6	8	8	8	10	8	8	6	6	126
Very Poor	10.5	6	12	4.5	4.5	3	3	4.5	6	6	6	7.5	6	6	4.5	4.5	95
Inadequate	7	4	8	3	3	2	2	3	4	4	4	5	4	4	3	3	63
Obsolete	3.5	2	4	1.5	1.5	1	1	1.5	2	2	2	2.5	2	2	1.5	1.5	32
Thoroughly Unsuitable	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

800 - 900 square feet for an elementary classroom - intermediate grades.

700 - 800 square feet for a non-specialized classroom in secondary grades.

Classrooms should be shaped so that all areas are usable and lighted adequately. There should be no posts and no awkward jogs in the walls. The rooms should be conveniently located, particularly with reference to related educational activities.

Natural light should provide sufficient, and well-distributed illumination without glare in average weather. Control devices should provide positive and flexible control of maximum available light, and should be durable, easily cleaned, and well maintained. Additional criteria are in Appendix F.

Shops should be sufficient in number, size, and equipment to meet the needs of the educational program. They should be clean, attractive, safe, and well kept. Fire-resistant construction should be used where necessary.

The evaluations of the classrooms follow in the alphabetical order of the schools:

Aberdeen

Regular classrooms.--At Aberdeen the classrooms are smaller than the suggested areas, and there are not now enough classrooms to meet educational needs adequately. This condition is especially serious since increased enrollments are anticipated for several years. Most of the classrooms are unilaterally fenestrated and have insufficient artificial illumination. The cafeteria and the auditorium-gymnasium are

not conveniently located and their entrances are in the basement. The control devices, cloth on rollers, need immediate replacement.

Floors in the classrooms and corridors are quiet, in good condition, and easy to maintain. Although they are asphalt tile, an excellent covering, they are too dark in color and not attractive. Walls and ceilings, having been redecorated recently, are attractive, durable, safe, in good condition, and reflect light adequately without undue harmful glare.

The classroom doors open outward, are of standard size, sturdy, easy to operate, and have positive latching. They have a clear glass area in the upper half. When open, they appear not to interfere with traffic in the corridors.

The classrooms have been redecorated quite recently, and the color schemes are harmonious, bright, attractive, and decorative. Chalkboards, however, detract from the appearance of the rooms. Although they are smooth and even, they are black, causing a too great brightness contrast in the visual field of the pupils. Green paints have been developed that can be applied satisfactorily to black chalkboards. This should be done at Aberdeen. Supplementary criteria are in Appendix F.

Tackboards are of suitable area for their required educational function, and are properly located in accordance with their use in the classrooms. Closets and cases provide ease and adequacy of storage of books, supplies, teaching equipment, and pupils' project materials.

Lockers in the corridors provide adequate, accessible, well-ventilated, and easily supervised facilities for the storage of pupil

clothing. They are well constructed, in good condition, and easily maintained, although the artificial light provided is hardly adequate for the pupils to see their clothing and supplies in their lockers.

In regard to type of equipment, classrooms should be supplied with suitably designed movable desk and chair units, or tables and chairs, with ample teaching equipment of all necessary kinds. Those at Aberdeen are quite suitable, except in the primary grades where tables and chairs, rather than the movable desk and chair units, would lend themselves better to a modern educational program at this level.

The Aberdeen school has two well-equipped fire-resistant rooms that are used for industrial arts instruction. Their location in the basement, however, precludes adequate daylighting, and the artificial illumination is insufficient.

Science and home economics laboratories should be sufficient in number, size, and equipment to meet the needs of the educational program. They should be suitably located for efficient use and should be clean, attractive, safe, and well maintained. There is only one science laboratory at Aberdeen, and it is not well equipped, indicating that the science curriculum is not yet fully developed. The home economics suite is in the basement, a poor location in which to conduct a home making instructional program.

Kindergartens should be light, clean, attractive, suitably located, in good condition, and properly designed and equipped. Supplementary criteria are in Appendix F. At Aberdeen there is no provision

for a kindergarten.

Other special rooms should be sufficient in number, size, and equipment, and should be suitably located for efficient use. They should be clean, attractive, safe, and well maintained. The only special room in this category provided at Aberdeen is one for instruction in typewriting.

Decatur

Regular classrooms.---The classrooms are not large enough for a modern activity program, nor are there enough rooms to have only one grade level in each room. They are unilaterally fenestrated, the admission of daylight being controlled with center-hung shades which are considerably better than those hung at the top, but are not usually as satisfactory as shades which control light by reflection, such as venetian shades.

The asphalt tile floors in the classrooms and corridors are in excellent condition and have but one fault; they are too dark in color. Walls and ceilings have been redecorated recently and are quite attractive. The chalkboards are black, detracting from the appearance of the rooms, as well as causing an unsuitable seeing environment. In several rooms the chalkboard area is excessive, being on more than one wall. Some of the space now being used for chalkboard could well be altered to accommodate tackboards which are not now adequately supplied.

There are no closets and cases for the storage of books, supplies and teaching materials. However, there are bookshelves and tables to

serve this purpose. Lockers are not provided for storing pupil clothing, nor are cloakrooms provided in the classrooms. The pupils must all use a central cloakroom located off the main corridor.

Desk and chair units are movable, but in the lower grades they are fixed to runners which keep them in rows. Tables and chairs should be used, especially in the primary grades.

Special classrooms.-- There is a shop in the Decatur school, but no credit was allowed for it in the classrooms evaluation, largely because of its location in the same room with the school heating unit, a basement room in which adequate daylighting is impossible.

The science and home economics programs appear to be in their initial stages of development. A general purpose classroom has been equipped with a demonstration desk, but there are no provisions for the pupils themselves to experiment. The home economics room is used as a science classroom, also, and there is no equipment for teaching food preparation.

There is no kindergarten, nor are other special rooms provided, except a very small room, nine feet by twelve and one half feet, which is used for instruction in typewriting.

Eagle

Regular classrooms.--There are only six classrooms, not enough to have one classroom for each of the eight grades taught at Eagle; and the rooms provided are not large enough for a modern educational program through which children experience numerous activities. Fenestration is

unilateral regardless of exposure, and the light control shades, which need to be replaced, are center hung. The wood floors are oil soaked, dark, and very unattractive. Ceilings are in fairly good condition, but should be repainted with white paint. Some of the walls are in good condition, while others should be redecorated. There is, at present, no variance in colors from room to room. If these rooms are ever redecorated, the color scheme should provide for pleasing colors that vary from room to room according to exposures.

The classroom doors are dark, helping to create undesirable brightness contrasts. They are installed in such a way that they interfere with pupil traffic in the corridors, and they are not provided with a clear glass area. The black chalkboards, which are superfluous in area, also cause undesirable brightness contrasts which could be modified by having a specially prepared green paint applied to them. The superfluous areas in each room should be removed and at least partially replaced with tackboard, which is not now provided in suitable quantity.

Closets and cases were not installed in the classrooms of this school, but bookshelves and tables have been placed in them for the storage and display of teaching equipment and project materials. There are cloakrooms in each classroom which seem to offer adequate facilities for storing pupils' clothing.

Desks and chairs are not suitably designed, all of them being placed in rows and fastened to the floors. In addition, however, in the combined first and second grade room, there is a movable work table

with movable chairs which permit a semblance, at least, of pupil activity in group situations.

Special classrooms.--No shops, science rooms, home economics suite, kindergarten, or other special rooms are provided in this eight-year elementary school. Therefore, full penalty was given for all of these items.

Fayetteville

Regular classrooms.--Although there are sufficient classrooms in this high school, they are not large enough according to present-day standards. However, because most of the classes have fewer than twenty-five pupils, there appears to be adequate space for most of the educational activities. In several of the rooms, fenestration is unilateral, while in others it is bilateral, but with no regard to exposure. The light-control devices are center-hung window shades. This kind of shade is not ideal, but is an improvement over those hung from the top of the windows.

The asphalt tile floors, the walls and ceilings, doors, and color scheme are excellent and deductions were not made for these items. Chalkboards are black and excessive in area. This deficiency could be remedied by converting a portion of the chalkboard area to tackboards, which are now inadequate, and painting the remaining chalkboard with an appropriate green paint.

Closets and cases are ample, as are lockers for the storage of pupil clothing. Desk and chair units, however, are not suitable, most

of them being fixed to the floors. In addition, they are too dark in color and do not permit an ideal visual environment.

Special classrooms.--It is to the credit of the local board of education and the principal of the Fayetteville High School that an industrial arts shop has been provided for the use of high school pupils as well as for veterans of World War II who have been receiving training in agriculture under certain provisions of the Veterans Administration. This shop, however, is not large enough for the educational needs of the school, and its basement location precludes adequate daylighting. Further, there is evidence of poor supervision, in that equipment is not neatly arranged and the area is not well maintained.

There is only one room for home economics instruction and it is in the basement, and for the entire science curriculum there is but one poorly maintained laboratory. There is only one other special classroom, the business education room, used for typewriting and shorthand instruction.

Georgetown Elementary

Regular classrooms.--Thirteen classrooms are currently required for the elementary-school program in Georgetown. Since there are only twelve classrooms in the elementary building, one class occupies a poorly lighted basement room across the street in the high school building.

Natural lighting in the elementary building is very inadequate, partly because of wide mullions between windows. The shades used to control daylight are of the poorest type, being the kind that hang from the top of the window.

The floors are of wood and are laid over the original oil-soaked floors. Doors are in good condition for the most part, but do not have clear glass areas. Walls and ceilings are badly in need of redecoration, except in one room on the second floor which has been redecorated recently with white paint applied to the ceiling, light green paint applied to the walls, and new hardwood covering the old floor. It is hoped by the superintendent of the school district that all of the rooms will be redecorated soon. Application of green paint to the black chalkboards in all of the classrooms should be a part of this redecorating program.

More closets and cases are needed for storage of books, supplies, teaching equipment, and pupils' project materials. Cloakrooms appear to be ample, but are poorly ventilated. Desk and chair units should be movable, but at this school they are fixed to the floor, except for a table or two and a few chairs in the primary rooms.

Special classrooms.---There are no special classrooms, such as shops, science and home economics laboratories, kindergarten or other special classrooms.

Georgetown High

Regular classrooms.---The classrooms in this high school are sufficient in number, but are not large enough for a modern program of educational activities, especially for classes with as many as twenty-five pupils.

Fenestration, in most of the rooms, is unilateral regardless

of exposure, and the shades are hung at the top of the windows, permitting no flexibility of light control. The asphalt tile floors are quiet, attractive, safe, durable, in good condition, and easy to maintain. However, they are too dark in color to help in providing an ideal visual environment. Walls and ceilings have been redecorated recently, and are in excellent condition, with the possible exception of one wall in the science laboratory through which water has seeped causing some of the plaster to crumble. Black chalkboards are, in several cases, excessive in area. This situation could be remedied by converting some of the space to tackboards, and painting the remaining chalkboard an appropriate color, probably green.

Closets and cases have been provided, but they are now overflowing. It is possible that additional equipment is needed, or it may be that a good housecleaning would provide ample storage space. Lockers for storing pupils' clothing are plentifully provided in the corridors. Concerning the type of equipment, a portion of the rooms have movable desk and chair units, while others do not.

Special classrooms.--The industrial arts shop should be larger and more suitably located than it is now, as it presents a crowded appearance and its basement location precludes adequate daylight. The home economics suite is quite ample in size and is well equipped. However, its location in the lower level of the building is not ideal. There is but one science laboratory, and it is not used regularly. It needs better maintenance and some repair work on the plaster in one

corner. There is a well-equipped but poorly lighted business education suite for the teaching of typewriting, shorthand, and certain other business subjects.

Green-Sterling

Regular classrooms.--At Green-Sterling there are eight elementary grades and only six classrooms. One of these is sometimes used as a stage, while two other rooms, separated by folding doors, do double duty as auditorium seating space on certain occasions. Further, each of the six classrooms is too small for a modern elementary-school educational program, the dimensions being twenty-nine and one half feet by twenty-three feet.

Natural light is admitted through plane glass windows which are glare sources, although this deficiency is partially controlled by the use of center-hung shades. Floors in most of the rooms are wooden, but over the boiler room, which is in the basement, the floors are asphalt tile on concrete. The asphalt tile is not light enough in color. Classroom doors do not measurably interfere with pupil traffic in the corridors, but they do not have a clear glass area as recommended.

Walls and ceilings, which have been redecorated recently, are durable, safe, in good condition, and bright and attractive in appearance. However, the ceilings should be white rather than cream, and wall colors should be varied with room exposures. The chalkboards are black and are excessive in area. A portion of the chalkboard area should be converted to tackboard, and the remainder should be painted green.

Closets and cases were not incorporated into the construction of the classrooms, but tables and bookshelves have been provided as substitutes. Lockers were to have been provided in the classrooms but have never been installed. The resulting space, which is ventilated, is used as cloakrooms. Desk and chair units in most instances are movable; however, in two classrooms they are fixed to runners.

Special classrooms.--There are no shops, science and home economics laboratories, kindergarten, or other special rooms for instruction purposes.

Hamersville

Regular classrooms.--The regular classrooms used by the elementary and high school pupils are not large enough, nor are they sufficient in number to accommodate the anticipated enrollment increases for the next several years. One elementary classroom is not conveniently located, the children being required to walk across one end of the gymnasium to reach it.

Fenestration in most of the rooms is unilateral regardless of exposure, and the admission of daylight is very poorly controlled by shades hung from the top of the windows. The asphalt tile floors are in excellent condition, but tile lighter in color should have been selected. Doors are in good condition and do not interfere with traffic in the corridors. Some of them have clear glass areas while others do not.

The walls and ceilings have been redecorated recently and are

in good condition. Chalkboards, however, were not included in the redecoration program and remain black. Tackboards, closets and cases, and lockers are amply provided. Classroom furniture in the elementary rooms is not movable, while that in the high school rooms is movable.

Special classrooms.--The industrial arts shop is ample in area, well kept and equipped, as are the science and home economics laboratories. There is no kindergarten.

Higginsport

Regular classrooms.--Classrooms in the older portion of the building are ample in floor area, but those in the newer section are not. The shape of several rooms is awkward because of structural projections, and the rooms in the older section have much wasted space, since the ceilings are almost seventeen feet above the floors.

Fenestration is unilateral in several rooms, and bilateral in others. Admission of daylight is poorly controlled by cloth shades, many of which should be replaced or **displaced by** a better type of light-control device such as venetian shades. Floors in the newer section are asphalt tile, while those in the older section are oil-soaked and made of wood. Classroom doors are in good operating order, but they do not have clear glass areas.

Walls and ceilings were redecorated a short time ago and are in good condition. However, the chalkboards remain black and are excessive in area, while tackboard space is not ample. Closets and cases have been provided for storing teaching supplies and equipment. These are now full and bulging. Either additional cases should be installed or

the supplies in the present ones should be sorted and no-longer-used materials discarded. There are no lockers for storing pupils' clothing, but cloakrooms are provided in the classrooms. Classroom desk and chair units, in most instances, are fixed to the floor, even in the primary grades.

Special classrooms.--Although the industrial arts shop is small, it is well organized and neatly maintained. In connection with the shop there are two smaller rooms,--a supply room and an office.

The science laboratory, which is used as a science classroom, is grossly inadequate. There is a demonstration desk only, which permits but a minimum of experimentation on the part of the pupils. The home economics laboratory, located on the second floor, is used as a cafeteria, also. It is not well kept or attractive.

Jackson

Regular classrooms.--In this elementary school there are pupils of eight grades being taught in four small classrooms averaging about six hundred square feet in area. Fenestration is unilateral and the admission of daylight is poorly controlled by shades in need of replacement.

The wooden floors are in satisfactory condition, although they are oil soaked and dark in color. Minor adjustments on doors would put them in good operating order; several do not open and close easily at present.

Walls and ceilings are in good condition and reflect the

available light adequately. The black chalkboards, however, are excessive in area, creating an undue amount of brightness contrast in the visual fields of the pupils. A portion of the chalkboard should be replaced by tackboard, and the remaining chalkboard should be painted an appropriate green.

Closets and cases are ample for the storage of teaching supplies and pupils' work. Cloakrooms for storing pupils' clothing are apparently large enough, but are not ventilated. Desk and chair units, even in the primary grades, are fixed to the floor.

Special classrooms.--There are no shops, science and home economics laboratories, kindergarten, or other special rooms for instructional purposes; therefore, no credit was given for these items.

Lewis

Regular classrooms.--In this two-teacher elementary school there are three grades in each of two classrooms. Two additional classrooms can be made, if necessary, by dividing the auditorium into two rooms by closing folding doors.

Daylighting is unilateral without regard to exposure, and the light-control devices are center-hung cloth shades. The wood floors are in poor condition, and the doors, although in good repair, do not have clear glass areas.

The walls and ceilings in the two classrooms are, for the most part, attractive and in good condition, having been redecorated recently. There are, however, several large spots in poor condition caused

by water seeping in through the exterior brick walls.

The two teachers have recognized that the black chalkboards are excessive in area, and have had portions of them covered with tackboard. This condition could be improved further by painting the uncovered chalkboard an appropriate green.

Closets and cases were not incorporated in the original design, nor have they been added. Cloakrooms are inadequate in size and are not ventilated. Desk and chair units, which should be movable, are arranged in rows and fixed to the floors.

Special classrooms.--There are no shops, science and home economics laboratories, kindergarten, or other special rooms for instructional purposes.

Mt. Orab

Regular classrooms.--Not only are most of the elementary and high school classrooms at Mt. Orab smaller than recommended in Appendix F, but several of them are overcrowded, indicating a deficiency in the number of classrooms. Because the two additions to the original building were not well planned, several classrooms are poorly located and to go from one section of the building to another it is necessary to walk through either the gymnasium or the industrial arts shop, or use an outside walk.

Windows are sources of glare and are located without regard to exposure. Daylight is poorly controlled with center-hung shades in a portion of the rooms, while top-hung shades are used in others. Floors for the most part are wooden, but in the latest addition asphalt tile

is used. Doors are in good repair and do have clear glass areas except in the original structure, which is used by elementary school pupils. The high school rooms have been redecorated recently and are quite attractive and in good condition. It is planned that the elementary section will be redecorated within a year or two.

As in many schools, the black chalkboards at Mt. Orab are excessive in area and, of course, create an undesirable brightness ratio in the visual field of the classroom occupants. Since tackboard space is not ample, portions of the area now used for chalkboards should be converted for use as tackboard, and the remaining chalkboard painted an eye-ease green.

Closets and cases were not built into the classrooms. Bookshelves and tables have been added since, but the teachers feel them to be inadequate for their needs. There is a separate cloakroom for each elementary classroom, each cloakroom having two doors, one leading to a classroom, the other leading to the corridor. In the high school section, lockers for pupil use are located in the corridors. Most of the classroom furniture is movable, except in certain of the elementary classrooms.

Special classrooms.---The basement location of the shop makes it difficult or impossible to move large objects into or out of the shop. This places a limitation on the kinds of work that can be done there. Further, the shop has a very crowded appearance, which indicates that it is not large enough for the program. The science and home economics laboratories also have a crowded appearance and are not kept in

a neat and clean condition. A kindergarten program was inaugurated in September, 1952. One other special room, a poorly lighted basement room for the business education curriculum, is provided.

Ripley Elementary

Regular classrooms.---The Ripley Elementary School has enough classrooms for the pupils who attend there. There is, however, another public elementary school in Ripley, namely, St. Michael, which is in a building owned by the Catholic Church and leased to the public school board of education. The four teachers at St. Michael are Catholic Sisters. If all the elementary-school pupils in the Ripley area were to attend one school, neither building would be large enough. Since both buildings have low ratings in their total evaluations, it will be recommended in Chapter XII that a new elementary school building be constructed in Ripley and that all public elementary pupils attend the one school.

Windows are placed without regard to the building orientation, and the admission of daylight is controlled by using center-hung cloth shades. Floors are of wood, worn in spots, oil soaked, and dark in color. The classroom doors are in good repair, but they do not have clear glass areas as recommended. Walls and ceilings are attractive, in good condition, and have been redecorated recently. Chalkboards, however, remain black and are excessive in area. Since more tackboard space is needed, part of the chalkboard area could be painted a color that would reduce the brightness ratio in each classroom.

Closets and cases were not included in the construction plans, but bookcases and tables have been added. According to the teachers, however, they are not adequate. Cloakrooms on one side of each classroom are the only facilities for storing pupils' clothing, and these cloakrooms are not well ventilated. Several classrooms have movable desk and chair units, while in other rooms they are fastened to the floor.

Special classrooms.--There are no shops, science and home economics laboratories, but there is a kindergarten program here, the first in Brown County. It began in September, 1951. There is one other special room which is used for teaching an average of seventeen slow-learning pupils.

Ripley High

Regular classrooms.--The Ripley high school building has sufficient classrooms to accommodate the present pupil population as well as the anticipated future population. If, however, there is to be a consolidation program, which would make Ripley the high school center for a larger area, additions would need to be made to the present building, or a new high school built on a new site. This Ripley building was penalized partially because several classrooms are below the recommended minimum area.

Unilateral fenestration prevails throughout the classrooms, regardless of orientation, and the admission of daylight is controlled by center-hung cloth shades which are in good condition. Floors, although in good condition, are of wood and are too dark in color. No

deductions were made for walls and ceilings, doors, and color scheme. Chalkboards remain black, and in several rooms they are excessive in area while tackboard space is not ample.

Closets and cases have not been incorporated in the classroom facilities and bookshelves are used as substitutes. These, according to the teachers interviewed, do not meet the classroom needs adequately. Lockers for storing pupils' clothing are amply provided in the corridors. One quite unnecessary deficiency in regard to type of equipment is the fact that desk and chair units are fixed to the classroom floors.

Special classrooms.---The industrial arts shop is satisfactory in size and equipment, and has been approved for use in a proposed vocational agriculture program. As yet there is no program of this kind, since a qualified teacher has not yet accepted this position. The shop does need redecoration and should be maintained better.

The science laboratory could easily accommodate more pupils than are admitted to the advanced science classes. More pupils would take these courses, but for the educationally unsound philosophy of the principal and of the science teacher that only the "bright" pupils should take them. The home economics suite contains several rooms and is efficiently used for the instruction of high school girls as well as a number of adult women. There are two other special rooms for instructional purposes, comprising a business education suite for teaching typewriting, shorthand, and certain other business subjects. The greatest deficiency in this suite is the arrangement of the chairs

and typewriter tables which requires that the pupils have their backs to the windows.

Russellville

Regular classrooms.--At Russellville there are not enough classrooms, and virtually all of them have less than the minimum areas recommended. Venetian shades have been installed in several classrooms, and cloth shades hung from the top of window frames have been installed in the remaining classrooms. Venetian shades control light better than the top-hung cloth shades do.

Floors are wooden, oil-soaked, dark in color, and generally unattractive. Most of the doors are in excellent repair and the only penalty for this item resulted from a few of the doors not having a clear glass area.

All of the classroom walls and ceilings have been redecorated recently and are attractive except for the black chalkboards which, in several rooms, are excessive in area. A portion of these chalkboards should be replaced by tackboard, and the remaining chalkboards should be painted green.

Closets and cases were not included in the original construction. However, bookshelves have been incorporated and apparently are meeting the classroom needs. Lockers are not provided even for the high school pupils; therefore, they must use the poorly ventilated cloakrooms in the classrooms. Concerning type of classroom equipment, all of the desk and chair units are fixed to the floors. Even in the primary grades there are no movable tables and chairs for group work experiences.

Special classrooms.--All that needs to be said for the present industrial arts shop is that it is housed in an auxiliary building which has been condemned for a number of years. The science laboratory consists of a regular classroom equipped with a demonstration desk only. There is no home economics program now, but when there was one the present cafeteria doubled as a home economics laboratory. There is no kindergarten program; there is a quite satisfactory business education room, but the music room is in the condemned auxiliary building.

Sardinia

Regular classrooms.--The regular classrooms are not large enough to accommodate a modern experience program adequately; nor are there sufficient rooms to meet expected additional requirements due to predicted enrollment increases.

Daylight is admitted through unilateral fenestration and is controlled by center-hung cloth shades. Floors are in poor condition, being rough in several areas, oil-soaked, and dark in color. Classroom doors for the most part are in good repair; but several of them do not have a clear glass area. Walls and ceilings are now in excellent condition, having been redecorated recently. At the time of this evaluation, the chalkboards remained black and excessive in area. It was planned, however, that if certain funds became available, green chalkboards would be installed. The classrooms are equipped with closets and cases, but most of the teachers, when interviewed, were of the opinion that they are inadequate.

Individual lockers are not available for storing outdoor clothing; pupils must use poorly ventilated cloakrooms in connection with each classroom. In only one room, the first grade, are the desk and chair units movable, and in this room they are arranged formally in rows.

Special classrooms.--Although the industrial arts shop is large enough for the educational program, it is poorly located in a basement with a ceiling height of seven feet and one inch. The home economics laboratory is located in the basement also, and there is no science laboratory. A kindergarten program was initiated in September, 1952. To make this possible, owing to the crowded conditions in the Sardinia building, extra classroom space was needed. The board of education, therefore, purchased a building to be used temporarily for two middle grade classes, permitting the kindergarten to be in the main school building. As for other special rooms, there is a business education room used for instruction in typewriting and shorthand. It is poorly lighted and has no acoustical treatment.

Scott

Regular classrooms.--At this eight-year elementary school there are only four classrooms, and they have less than the minimum area recommended in Appendix F. Although venetian shades are used to control daylight, the classroom areas opposite the unilateral windows are not amply lighted. However, this type of shade is more suitable than the center-hung or top-hung cloth shades.

The wooden floors are in good condition and are quite attractive, but for some reason are squeaky in several spots. Classroom doors appear to interfere with pupil traffic in the corridors, and one classroom door leading to the outside could not be opened at the time this school was evaluated because it had swollen and fit too tightly.

Walls and ceilings are painted a cream color which is not suitable. The ceilings should be white and the walls painted with appropriate flat pastels. There are several cracks in the interior walls, and there is evidence in one wall area that water has seeped in, causing paint to peel.

The chalkboards are black and are excessive in area, while tackboard area is not ample. Small storage closets have been provided for teaching materials, but these are overflowing. For the storage of pupil clothing, cloakrooms in connection with each classroom are used. These, too, are overflowing. Desk and chair units in all four classrooms are of the movable type, but are arranged in formal rows.

Special classrooms.---There are no kindergarten or other special classrooms.

St. Martin

Regular classrooms.---The poorest classrooms in Brown County are in this six-grade elementary school. There is one classroom for each grade, but most of them are thoroughly unsuitable. Five of the classrooms, although long enough, are only fifteen feet wide.

The windows in several rooms are not high enough to admit light

properly, and the little light they do admit is controlled by cloth shades, several of which should be replaced. The wooden floors are oil soaked, dark in color, and generally unattractive. The classroom doors are in good repair and are equipped with a clear glass area. Walls and ceilings are in fairly good condition, but are cream colored. The chalkboards are black and are excessive in area, while tackboard space is inadequate.

Closets and cases were not incorporated in the construction of the building, but tables and shelving have been added. These are now overcrowded. Neither lockers nor cloakrooms are provided for storing pupils' clothing, which must be hung on hooks in the corridors. Classroom desk and chair units in the first-grade room are movable, but in the others they are fixed to the floor.

Special classrooms.--There are no special classrooms at St. Martin, therefore no credit is allowed in this category.

St. Michael

Regular classrooms.--In this eight-grade elementary school there are only four classrooms and these are too small for a modern program of elementary education, although they are apparently adequate for the kind of program now carried on at St. Michael.

Two of the classrooms are on the second floor, two are on the first floor, and the playroom and cafeteria are in the basement. The girls' toilet is on the first floor and the boys' toilet is in the basement. Thus certain facilities can not be reached conveniently by

all the pupils.

Fenestration is unilateral, and the light-control devices are center-hung cloth shades. The wooden floors are oil soaked and very dark in color, but otherwise are in good condition. One classroom, the one used by the head teacher, has been appropriately redecorated, and it is hoped that the remaining rooms and corridors will be treated in similar manner very soon. The chalkboards in all the rooms are black and are excessive in area, while tackboard space is not ample.

Cupboards and bookshelves are incorporated in the classroom construction. They are not adequate in size and number, however, according to the teachers. Pupil clothing is stored in cloakrooms, one being provided for each classroom. In all four classrooms, the desk and chair units are fixed to the floors.

Special classrooms.--There are no special classrooms; therefore, no credit was allotted in this category of the classrooms evaluation.

Summary

The regular and special classrooms of each public school in Brown County, Ohio, were evaluated according to the criteria in the Guide for Evaluating School Buildings described in Chapter II. Appendix F is comprised of these criteria.

Regular classrooms.--In the size and number item the highest possible score is thirty-five. The highest score allotted to a school in Brown County, however, is twenty-three for Ripley Elementary, and this score is interpreted as sub-satisfactory. Fayetteville and Ripley

High each have a score of seventeen, or borderline, while Eagle and Georgetown High each have a score of eleven, or very poor. The remaining schools have no credit and are thoroughly unsuitable in regard to size and number of classrooms.

In the item of classroom shape, six schools have a score of twelve out of a possible twenty, or sub-satisfactory. These schools are Aberdeen, Decatur, Fayetteville, Jackson, Ripley Elementary, and Russellville. Nine have a score of eight, or generally poor. These are Eagle, Georgetown High, Green-Sterling, Hamersville, Lewis, Ripley High, Sardinia, Scott, and St. Michael. Two schools, Georgetown Elementary and Mt. Orab, have a score of four, or obsolete, and two, Higginsport and St. Martin, have no credit and are thoroughly unsuitable.

Natural lighting is below minimum standards in all of the schools. The highest score is twenty-two out of a possible forty, or borderline, for Scott. Decatur and Ripley High have a score of eighteen, or generally poor; Jackson and Russellville sixteen, which is interpreted as generally poor, also. Aberdeen, Decatur, and Ripley Elementary have twelve, or very poor, and Eagle, Green-Sterling, Higginsport, Lewis, Mt. Orab, Sardinia, and St. Michael have a score of ten, or inadequate, while four other schools, Georgetown Elementary, Georgetown High, Hamersville, and St. Martin, each have a score of eight, which is interpreted to be inadequate, also.

The highest possible score for floors is fifteen, and two schools, Fayetteville and Hamersville, attained this score. The next highest score is twelve, or satisfactory, for Aberdeen and Decatur,

while Georgetown High and Green-Sterling have scores of nine, or sub-satisfactory. Higginsport, Mt. Orab, Ripley High, and Scott have scores of six or generally poor, and the remaining schools have scores which are interpreted to be inadequate, obsolete, or thoroughly unsuitable.

Ten schools have the maximum score of fifteen, or excellent, in the walls and ceiling item. These ten are Aberdeen, Fayetteville, Green-Sterling, Hamersville, Higginsport, Jackson, Ripley Elementary, Ripley High, Russellville and Sardinia. Eagle has a score of twelve, or satisfactory; Georgetown High, Lewis, Mt. Orab, and Scott have a score of six, or generally poor; and Georgetown Elementary, St. Martin, and St. Michael have a score of three, or inadequate.

Seven schools have a score of ten, or excellent, for their doors. The seven are Aberdeen, Decatur, Fayetteville, Georgetown High, Ripley High, St. Martin, and St. Michael. Russellville follows with a score of eight, or satisfactory. The remaining schools have a score of six, or sub-satisfactory, except for Eagle and Lewis, which have a score of four, interpreted as generally poor.

In the color scheme item, ten of the nineteen schools have a score of ten, which is excellent. These ten schools, most of which have been redecorated quite recently, are Aberdeen, Fayetteville, Green-Sterling, Hamersville, Higginsport, Jackson, Ripley Elementary, Ripley High, Russellville, and Sardinia. The next highest score allotted is six, or sub-satisfactory, for the following schools: Decatur, Eagle, and Lewis. The color schemes of the remaining schools are so deficient

that they are either generally poor or inadequate.

The chalkboards of all the schools are black, a color no longer considered satisfactory in classrooms. The scores vary slightly from school to school, however, because of chalkboard areas. The highest score is seven, or generally poor, and was allotted to three schools, namely, Aberdeen, Georgetown Elementary, and Hamersville. The next highest score is five, or very poor, for one school, Ripley High. The remaining evaluations range from inadequate to thoroughly unsuitable, ten of them being the lowest possible score.

The classrooms were not so deficient in the tackboard evaluation, four schools, namely, Aberdeen, Georgetown Elementary, Georgetown High, and Hamersville receiving a score of twenty, or excellent. Ripley High is next with a score of sixteen, or satisfactory. Following are Fayetteville, Jackson, and Lewis with a score of twelve, or sub-satisfactory. Decatur, Eagle, Higginsport, Ripley Elementary, Russellville, Sardinia, and St. Michael each have a score of eight, which is interpreted as generally poor. The remaining four schools, Green-Sterling, Mt. Orab, Scott, and St. Martin have a score of four, or inadequate.

In the closets and cases item four schools have a score of twenty, or excellent. These are Aberdeen, Fayetteville, Hamersville, and Jackson. Five schools, Georgetown Elementary, Georgetown High, Higginsport, Sardinia, and St. Michael, have a score of twelve, or sub-satisfactory, while six of them, Decatur, Eagle, Mt. Orab, Ripley Elementary, Ripley High, and Russellville have a score of eight, which is interpreted to be generally poor. Three schools have a score of four,

or inadequate. These three are Green-Sterling, Scott, and St. Martin. Lewis, the remaining school, has no credit and is thoroughly unsuitable in this item.

In the cloakroom and locker item, seven schools, Aberdeen, Eagle, Fayetteville, Georgetown High, Hamersville, Mt. Orab, and Ripley High have the excellent rating, while Georgetown Elementary, Ripley Elementary, Sardinia, and Scott are satisfactory. Decatur, Jackson, Lewis, Russellville, and St. Michael are next with a score of twelve, or sub-satisfactory. The remaining three schools have the following evaluations: Higginsport is generally poor; Green-Sterling is inadequate; and St. Martin is thoroughly unsuitable.

Concerning type of equipment, the highest score was fifteen out of a possible twenty-five. This score, interpreted as sub-satisfactory, was allotted to Aberdeen, Decatur, and Scott. The next highest score allotted is ten, or generally poor, for Fayetteville, Georgetown High, and Ripley Elementary. Twelve of the remaining thirteen schools have a score of five or inadequate, while the other, namely, Jackson, has no credit and is thoroughly unsuitable in this item.

Special classrooms.--One school, Hamersville, has an evaluation of excellent for its shops. The next highest is a score of twelve out of a possible twenty, or sub-satisfactory, for Aberdeen. Georgetown High and Ripley High each have a score of eight, or generally poor, while Higginsport has a score of four, or inadequate. The remaining schools have no credit and are thoroughly unsuitable.

Concerning science and home economics laboratories, Hammersville ranks highest with an evaluation of excellent. Ripley High is next with a score of twelve out of a possible twenty, or sub-satisfactory. Georgetown High has a score of eight, or generally poor, while the remaining schools have no credit and are thoroughly unsuitable.

There are three kindergarten programs in Brown County, one in Ripley which began in September, 1951, and in Mt. Orab and Sardinia, which began in September, 1952.

In the item called other special rooms, Georgetown High has an evaluation of excellent; Hamersville, sub-satisfactory; Ripley High, generally poor; and Fayetteville, inadequate. The remaining schools have no credit for this item.

Composite classrooms evaluation.--The highest possible score in the classrooms evaluation is three hundred and fifteen. The highest score attained is one hundred eighty-three, which is below the minimum score required for the sub-satisfactory evaluation. Therefore, the classrooms of the Hamersville school, the school having the highest score, are evaluated as borderline in the score interpretation. Four more schools are in the borderline group. These are Ripley High with a score of one hundred seventy-one, Aberdeen with a score of one hundred sixty-five, Fayetteville with a score of one hundred sixty, and Georgetown High with a score of one hundred fifty-eight. There are no schools with the generally poor evaluation for their classrooms, but there are five in the next lowest evaluation, very poor. These five

are Ripley Elementary with a score of one hundred twenty-three, Decatur with a score of one hundred ten, Jackson with a score of one hundred three, Russellville with ninety-eight, and Eagle with ninety-five. Eight schools have the inadequate evaluation. These are Sardinia with a score of ninety-one, Scott ninety, Georgetown Elementary eighty-six, Higginsport eighty-four, Green-Sterling seventy-six, St. Michael seventy-three, Mt. Orab seventy-one, and Lewis with sixty-six. The classrooms of the St. Martin school have the lowest score, thirty-nine, which is interpreted as obsolete.

CHAPTER X

EDUCATIONAL ADEQUACY OF SPECIAL ROOMS

The special rooms of each public school in Brown County were evaluated according to the criteria of the Guide for Evaluating School Buildings described in Chapter II. These criteria are listed in Appendix G. Table 19 shows the possible score in each category of the special rooms evaluation, the possible total score, and the scores allotted to each of the nineteen schools in the special rooms evaluation. The score for each school in each category was arrived at by making deductions, if appropriate, from the possible score, these deductions being made at the time of the special rooms evaluation, and the reasons for the deductions written in the space provided for that purpose in the guide. Table 20 shows the interpretation of these scores. The evaluation of the special rooms follows in the alphabetical order of the schools:

Aberdeen

Special rooms for pupil activities.--The gymnasium is adequate in size for a well-developed physical education and play activities program. It has a suitable floor, adequate spectator seating, and is well equipped. It is conveniently located for visitors, but is reached by the pupils by going through a basement corridor. It is zoned for separate heating and is capable of being cut off from the rest of the building. The locker rooms are adequate in size and equipment, but are

TABLE 19

SCORES ALLOTTED TO EACH SCHOOL IN THE SPECIAL ROOMS EVALUATION

Name of School	Score in Each Category of the Special Rooms Evaluation										Totals
	Special Rooms for Pupil Activities			Special Service Rooms					Administrative Rooms		
	Gymnasium Suites	Library Suites	Auditorium	Custodians' Rooms	Storage Rooms	Cafeteria	Teachers' Rooms	Other Special Rooms	Principal's Office	Guidance and Other Offices	
(Highest Possible Score)	30	20	20	10	10	10	10	10	30	20	170
Aberdeen	18	0	0	1	0	2	0	0	14	0	35
Decatur	0	0	0	0	0	0	0	0	0	0	0
Eagle	0	0	0	0	0	6	0	2	0	0	8
Fayetteville	0	6	0	3	6	2	0	0	14	0	31
Georgetown Elementary	0	0	0	0	0	0	0	0	0	0	0
Georgetown High	12	6	8	6	2	0	0	4	22	0	60
Green-Sterling	0	0	0	4	2	0	2	2	2	0	12
Hamersville	8	0	0	6	10	2	0	0	6	0	32
Higginsport	0	0	0	1	4	4	0	0	6	0	15
Jackson	0	0	0	1	6	2	0	2	0	0	11
Lewis	0	0	0	0	0	0	0	0	0	0	0
Mt. Orab	0	0	0	1	2	0	0	2	10	0	15
Ripley Elementary	0	0	0	0	2	0	0	0	2	0	4
Ripley High	14	6	2	3	4	0	0	0	6	0	35
Russellville	0	0	0	1	2	0	0	4	0	0	7
Sardinia	15	0	0	0	2	0	0	2	0	0	19
Scott	0	0	0	1	0	4	0	0	0	0	5
St. Martin	0	0	0	0	0	0	6	0	0	0	16
St. Michael	0	0	0	0	0	0	10	0	0	0	10

TABLE 20
INTERPRETATION OF SCORES IN THE SPECIAL ROOMS EVALUATION

Score Interpretation	Category of Special Rooms Evaluation												Total
	Special Rooms for Pupil Activities			Special Service Rooms						Administrative Rooms			
	Gymnasium Suites	Library Suites	Auditorium	Custodians' Rooms	Storage Rooms	Cafeteria	Teachers' Rooms	Other Special Rooms	Principal's Office	Guidance and Other Offices			
Maximum Possible Score	30	20	20	10	10	10	10	10	10	30	20	170	
Excellent	27	18	18	9	9	9	9	9	9	27	18	153	
Satisfactory	21	14	14	7	7	7	7	7	7	21	14	119	
Sub-Satisfactory	18	12	12	6	6	6	6	6	6	18	12	102	
Borderline	15	10	10	5	5	5	5	5	5	15	10	85	
Generally Poor	12	8	8	4	4	4	4	4	4	12	8	65	
Very Poor	9	6	6	3	3	3	3	3	3	9	6	51	
Inadequate	6	4	4	2	2	2	2	2	2	6	4	34	
Obsolete	3	2	2	1	1	1	1	1	1	3	2	17	
Thoroughly Unsuitable	0	0	0	0	0	0	0	0	0	0	0	0	

poorly ventilated and are not kept clean.

The library is grossly inadequate, consisting of a small area at the rear of the study hall. Therefore, there are no offices, work-rooms, or conference rooms.

The auditorium, too, is inadequate, being combined with the gymnasium. The stage and dressing rooms are not accessible without going through the auditorium space, and there is no ticket office or other special facilities such as cloakrooms for public use.

Special service rooms.--There are no separate lockers, toilets, and showers for the custodians at Aberdeen, nor are there sufficient spaces for sinks and storage of utensils on each floor, these facilities being provided on the basement level only.

There is no provision for ample storage, conveniently located, for books, instructional supplies, and other equipment for the whole school and for each department.

The cafeteria provides facilities for efficient feeding of the school population in a suitable number of shifts without congestion or confusion. However, the basement location makes it not easily accessible from the outside. It needs acoustical treatment, better lighting, and redecoration.

There are no teachers' rooms for seclusion, work, or rest, nor are there other special rooms such as health suites, clinics, garages for school buses, etc.

Administrative rooms.--The principal's office suite is comprised of two rooms, one for the secretary and one for the principal. It is

inconveniently located on the second floor, and has no toilet facilities, nor does it have adequate waiting space and conference rooms. As for guidance and other offices, none ~~is~~ provided.

Decatur

Special rooms for pupil activities.--The Decatur school has a nice gymnasium, but has no storage space or special rooms in connection with it. It is conveniently located, zoned for separate heating, and is easily reached by the public. There are no separate shower, locker, and toilet rooms for the physical education program, these facilities being shared by the whole school. Even these are poorly lighted and poorly ventilated.

The library is used part of the school day as a classroom. It is poorly lighted and there is no acoustical treatment; nor are there workrooms, conference rooms, or a library office.

The auditorium is combined with the gymnasium. Acoustics are very poor, the stage is too small, and there are no special cloakrooms or toilets for public use.

Special service rooms.--For the custodian there is no room separate from the boiler room, not even a janitor's closet on the classroom level for storage of utensils and other cleaning equipment. As for storage rooms for books, instructional supplies, and other equipment for the whole school and for each department, none ~~is~~ provided.

Full penalty was given for food service, because the kitchen is so badly located, being at an end of the gymnasium opposite the classrooms, and because there is no special room for serving the food, the

pupils being required to eat in the gymnasium or in their classrooms.

There are no special rooms for the teachers, nor are there other special rooms such as clinics, health suites, or garages for buses.

Administrative rooms.--The principal's office consists of one small room, which is crowded with a variety of supplies. There are no auxiliary rooms and there are no guidance or other offices for counselors and other specialized personnel.

Eagle

Special rooms for pupil activities.--There is no gymnasium for the pupils of this eight-year elementary school, nor is there any attempt to organize any play activities. There are, however, random activities of a play nature in the second-floor auditorium, and in the unused classroom also located on the second floor.

At one time the library was fairly active, but it has degenerated to a point of little use. In each classroom there are book cases or shelves in which limited resource books are kept.

As stated above, the auditorium is also used for play activities. This may in part explain the unclean condition of this facility. Other shortcomings are the very small stage, absence of dressing rooms and storage areas, poor lighting and acoustical treatment, and complete lack of cloakrooms and toilets for community use.

Special service rooms.--There is no provision for the storage of equipment used by the custodian; therefore, the meager equipment provided can be found scattered here and there and not properly cared

for or used.

Storage rooms for the whole school were not incorporated in the design or construction of the building. As there is no longer a high school program at Eagle, the principal's office and two second-floor classrooms are not used for their original purpose. One of these classrooms and the office are now used for storage.

The cafeteria provides facilities for efficient feeding of the school population. It is kept clean and attractive and is reasonably well maintained. It is, however, in the basement, which was the only available area in which to install the cafeteria, which was added long after the building was erected.

There are no teachers' rooms for the seclusion, work, and rest of the teaching staff. As for other special rooms, only a garage is provided.

Administrative rooms.---The room intended as the principal's office is no longer used for that purpose. Instead, it is filled to overflowing with an assortment of items, poorly arranged and maintained. There are no guidance or other offices.

Fayetteville High School

Special rooms for pupil activities.---Although adequate in size, the gymnasium lacks certain facilities required for a complete physical education program. There are, for example, no showers in connection with the gymnasium, the pupils being required to use those in the main building. There is no office or provision for storing equipment, and

natural lighting is below standard on that side of the gymnasium opposite the windows.

The library is suitable in size, considering the number of pupils in the school, but pupil needs could be met better if a library office and conference rooms could be added. This is under consideration by the school authorities.

The auditorium is combined with the gymnasium and has the identical lack of storage facilities. Further, the stage is not accessible without passing through the auditorium space. Although intended for public use, this facility has not been provided with cloak-rooms and toilets for the use of the public.

Special service rooms.--Rooms for the custodians are not adequate, in that they are not located on each floor and that there is no separate shower or toilet for the custodial staff.

There are several storage areas for the school, but one department, the cafeteria, has very meager storage area. Located in the basement, the cafeteria has inadequate fenestration and is not conveniently accessible. Further, it is not acoustically treated. No rooms are provided for the teachers for seclusion, work, and rest, nor are there any other special rooms.

Administrative rooms.--The principal's office suite consists of waiting room, office, and toilet room. There is also a vault provided for the safe storage of school records, money, and other valuables. The office is kept neat and is nicely furnished for a school of this size.

There are no guidance offices or special offices for department heads or other specialized personnel.

Georgetown Elementary

Special rooms for pupil activities.--At this school there is no gymnasium, library, or auditorium. The pupils, however, enjoy at least minimal benefits from those kinds of facilities in the high school, which is separated from this elementary school by a low-traffic street.

Special service rooms.--Custodian's rooms are completely lacking; therefore, the custodian must keep his equipment in basement corners, and transport it from floor to floor when he does the routine cleaning.

In each classroom there are small cupboards and some shelving for the use of the occupants of each room, but there are no storage facilities for the whole school.

Cafeteria facilities are not available to the pupils in their own school. For food service they must leave their building, cross a street, and go to the nearby high school cafeteria.

There are no rooms for the exclusive use of teachers, nor are there any other special rooms, such as health suites, clinics, or garage for school buses.

Administrative rooms.--There is no office for the principal. He teaches half time and his classroom doubles as an office the other half. Nor are there any other offices for the professional services which are expected in our elementary schools today.

Georgetown High School

Special rooms for pupil activities.--The gymnasium of the Georgetown High School is fully adequate in size for the physical education and play activities of the pupils. There is just the one gymnasium, however, and there is a felt need for several smaller rooms for certain games and activities. The floor is in excellent condition, there is adequate lighting, both natural and artificial, but there is no acoustical treatment, a very bad feature, considering that this facility also serves the school and the community as an auditorium. Although adequate shower and locker rooms have been provided, the ventilation of them apparently is not sufficient, as evidenced by their stuffiness at the time of their evaluation.

The library suite does double duty, serving also as a study hall. It is quite easily accessible, and is well furnished. There is no acoustical treatment, the lighting is poor, and there are no conference rooms or librarian's office.

Special service rooms.--Limited storage and work space are available for the custodians. They do not, however, have separate toilets and showers. Storage rooms for the school as a whole are very inadequate, making it necessary to use undesirable locations for this purpose, such as under tables in the secretary's office and on shelving in the health clinic suite.

The cafeteria in the basement of this high school is also used by elementary-school pupils who come from the elementary-school building nearby. The food served is excellent in quality and in preparation,

and workers are very friendly, helping to create a pleasant atmosphere at mealtime. Although the cafeteria is not large, by staggering the lunch periods all the pupils and employed personnel are fed in suitable number of shifts without congestion or confusion. Being at basement level, however, this cafeteria does not receive sufficient natural light, nor is the artificial lighting adequate. Further there is no acoustical treatment in the kitchen or cafeteria.

There are no rooms in use for the seclusion, work and rest of the teachers. Although one such room was provided, it is used for storage of supplies for the whole school. As for other special rooms, the health suite meets the health clinic needs of the pupils, but garages are not provided for the school buses.

Administrative rooms.--The principal's office suite, although perhaps the best in Brown County, leaves much to be desired. The suite consists of three rooms, but there is very inadequate storage space, and a large area is needed for parents, salesmen, pupils, and others who are waiting for conferences. As for guidance and other offices, none is provided.

Green-Sterling

Special rooms for pupil activities.--At this elementary school there is no gymnasium, although in the basement of the school there are two small play rooms,--one for girls and one for boys. There is no library in any form except for bookshelves in the individual classrooms.

There is no auditorium except for an unique arrangement where--by partitions dividing a larger area into three classrooms are moved aside, making the three classrooms into one larger room. A classroom at

one end is elevated above the other two. It serves as the stage.

Special service rooms.--The central storage place for the custodian is the furnace room. At the classroom level there is one janitor's closet with a mop sink and limited storage space. There is no separate shower or toilet for the custodian. Storage for the whole school is inadequate, also, consisting of a very small room adjoining the principal's office.

The cafeteria is large enough to provide efficient feeding of the pupils. Its basement location, however, prevents adequate daylighting, and the artificial illumination is unsatisfactory. Further, the cafeteria and kitchen are not treated acoustically.

As for teacher's rooms and other special rooms, there is a very small health suite which is at times used by ill pupils, and at times used as a place for teachers to rest.

Administrative rooms.--The principal's office consists of one room about ten feet long and about eight feet wide. There are no auxiliary rooms except the small storage room previously referred to as being quite inadequate. There are no guidance or other offices.

Hamersville

Special rooms for pupil activities.--There is only one gymnasium for the use of both elementary and the high school pupils who attend school here. This one gymnasium is large and has adequate seating capacity for spectators at sporting events and for audiences when the gymnasium is serving as an auditorium for school and community affairs.

There is no office in connection with the gymnasium, nor is there adequate storage space. Shower and locker rooms have been provided, but these are poorly ventilated, and at the time of their evaluation were badly in need of cleaning.

The library serves as a study hall, or it may be more accurate to say that the library occupies a small area at one end of the study hall. There are no special offices, conference or workrooms. Lighting is not seriously inadequate, but there is no acoustical treatment.

Special service rooms.---On each floor sufficient sinks and space for the storage of utensils are conveniently located for the use of custodial workers, but separate toilets and showers are not provided for these workers. Storage rooms for the school as a whole provide ample, and, in most instances, conveniently located storage spaces.

The cafeteria is not large enough for serving all the pupils in a reasonable length of time; therefore, the pupils are served cafeteria style and they go to their classrooms to eat. After eating, they return their trays to the kitchen where the soiled dinnerware is washed by hand, since modern automatic equipment has not been installed.

There are no rooms for the seclusion, work, or rest of the teachers. Nor are there any other special rooms such as health suites or garages for school buses.

Administrative rooms.---The principal's office consists of one room which is used part-time by the principal, who teaches several classes, and full-time by a secretary. There are no guidance or other offices.

Higginsport

Special rooms for pupil activities.--The gymnasium provided for the elementary pupils at Higginsport is adequate in size and has an excellent wooden floor, which is kept in perfect condition. However, there are certain inadequacies which include the following: no auxiliary rooms, no office, very little storage space, no separate toilet, locker, and shower system in connection with the gymnasium, and inadequate seating capacity. Further, the gymnasium is also used as the auditorium.

The library is located in the oldest section of the building and is used in connection with the study hall. The room is badly in need of decoration and is poorly lighted. Acoustically the library and study hall are not inferior partly because of the seventeen-foot-high ceilings.

Special service rooms.--Facilities for custodial work are quite unsatisfactory at Higginsport. Spaces for sinks and storage of equipment and utensils are not provided on each floor, and there are no separate lockers, toilets, or showers for the custodians. Storage for the whole school had been quite limited until recently, when earth was excavated from under the stage at one end of the gymnasium. A storage room with concrete floor and walls was constructed and, although not conveniently located, is meeting the storage needs of the school.

The cafeteria, located on the second floor, provides facilities for feeding the school population without congestion. Because there is no elevator, this second-floor location is very inconvenient.

There are no teachers' rooms, nor are there other special rooms

such as health suites or school bus garages.

Administrative rooms.--The principal's office suite consists of two small rooms located so as not to be very accessible to the public. Owing to the inconvenient location of the storage room, and to the lack of storage space near the office, both rooms of this office suite are used for the storage of school supplies. There are no guidance or other offices.

Jackson

Special rooms for pupil activities.--At this elementary school there is no gymnasium or playroom of any kind, nor is there a library or an auditorium. The cafeteria, located in the basement, has a small stage at one end, however, and on certain occasions is converted for use as an auditorium.

Special service rooms.--There are no separate toilets, showers, or lockers for the use of the custodian, nor are there any storage spaces available for his use at the classroom level, his only storage space being in the basement. There is no storage space for the whole school, but each of the four classrooms has storage space provided, which seems to meet the classroom needs amply.

As mentioned above, the cafeteria is in the basement, as is the kitchen. The pupils are served well-prepared lunches here, but the lighting and acoustical treatment leaves much to be desired. There are no special teachers' rooms, nor are there any other special rooms except for a separate building that garages four school buses.

Administrative rooms.--The principal's office consists of one room only, and this room is inadequate in size, poorly lighted, and in need of decoration. There are no guidance or other offices.

Lewis

Special rooms for pupil activities.--At this two-teacher elementary school there are no facilities for play or physical education activities inside the building, nor are there any library facilities.

There are two classrooms, unused for several years, that are separated by folding doors. At one end of one of the rooms is a stage. On the rare occasions that programs requiring an auditorium are scheduled, the two classrooms are combined into one larger room and the seating rearranged.

Special service rooms.--There are no storage and work spaces with lockers, toilets, and showers for the use of the part-time custodian, the only space provided being in the furnace room.

No storage room was incorporated into the design of the school. Since, however, two classrooms are unused, the cloakrooms in these rooms are now used for storage of school supplies.

There is no cafeteria service in this school, this being the only public school in Brown County without this important service. Further, there are no teachers' rooms or other special rooms such as health suites and school bus garages.

Administrative rooms.--A small office is provided for the principal, but it has not been used for several years; consequently, it is not

well kept. As this is a two-teacher school, one of the teachers performs certain duties required of a principal, but uses her classroom for her office. There are no guidance or other offices.

Mt. Orab

Special rooms for pupil activities.--Although there is a gymnasium, also used as the auditorium at Mt. Orab, it ranks very low in its evaluation owing to its small size, very bad sound control, poor lighting, and inadequate seating for spectators. Further, there are no offices and no shower and toilet facilities in connection with the gymnasium.

The library, used primarily by the high school pupils, is located on the second floor and is an integral part of the study hall. There are no auxiliary rooms such as offices and workrooms.

Special service rooms.--At several locations throughout the school there are janitors' closets for the use of the custodians, but there are no separate lockers, toilets, or showers for their use. Storage space for the whole school is very deficient except for a basement room where cafeteria supplies are kept.

The cafeteria serves an average of one hundred seventy-five pupils each day without congestion or confusion. Its location in the basement precludes adequate daylighting, and the artificial illumination is below acceptable standards. No attempt has been made to treat the cafeteria acoustically. It has, however, been remodeled and redecorated recently.

There are no special rooms for the teaching staff, nor are there any other special rooms except for a small building for the garaging of two school buses.

Administrative rooms.--The principal's office suite consists of two rooms which are grossly inadequate, especially since storage space elsewhere is not available and because the secretary does all of her work, including duplication, in this suite. There are no other offices for guidance or other pupil-personnel services.

Ripley Elementary

Special rooms for pupil activities.--On the first floor of this school there is an undersized gymnasium-auditorium, which is used for the underdeveloped physical education program and for certain programs requiring an auditorium. In addition, there is a basement playroom which is unsatisfactory, also, owing to its small size and concrete floors.

There is no centrally located library facility, but there are book shelves in each of the classrooms. The auditorium, as stated above, is also used as a play room or gymnasium. There are no storage, office, or special rooms which could help to improve that portion of the curriculum centering in this room.

Special service rooms.--There are no special rooms for the use of the custodian, nor is there storage space for the use of the entire school, except for a small cupboard in the principal's office.

Although there is food service for the pupils here, there is no kitchen or dining room. The food is prepared at the Ripley High School,

transported to this elementary school, and served to the pupils, who take their trays to their classrooms.

Administrative rooms.---Although the principal's office, itself, is large enough, and is well lighted with fluorescent fixtures, it is inadequate in that there are no auxiliary rooms, except for a small storage area. There are no guidance or other offices.

Ripley High School

Special rooms for pupil activities.---Observation on several occasions indicated that the gymnasium at the Ripley High school is quite adequate for the needs of the physical education and athletic programs; however, all the pupils do not have access to the gymnasium each day. One glaring deficiency is the basement location of the dressing rooms with the resulting absence of sufficient daylighting. It was also noticed that ventilation was poor, resulting in stuffiness and retention of odors.

The library is in connection with the study hall. Instead of having work tables for the pupils, rows of desks are in use, and these are fixed to the floor, preventing the flexibility desirable in study situations.

There is no auditorium; therefore, the gymnasium is converted for use as an auditorium for certain school and community programs. In addition to the deficiencies inherent in this kind of arrangement, there is inadequate storage, no acoustical treatment, and no enclosed way to get to the stage and dressing rooms without going across the main floor of the auditorium.

Special service rooms.---There are no separate lockers and showers for the custodians; therefore, they have been authorized to share those facilities provided in the basement for the boys in the school. There are classrooms on two levels, but a janitor's closet is on the first floor only. Storage for the whole school is very unsatisfactory, especially for the cafeteria and for office supplies.

Food is served cafeteria style. However, seating space is so limited in the cafeteria, that pupils take their food on trays to their classrooms and eat at desks. Since the cafeteria is not used as an eating place, the music teacher has acquired it for the teaching of instrumental music. This, too, has not proved to be satisfactory, as there is no acoustical treatment of this room.

There are no special rooms for the teachers, nor are there other special rooms such as health suites, clinics, or school bus garages.

Administrative rooms.---The principal's office suite consists of two rooms on the second floor. The outer room is used by the secretary and provides very limited seating for those waiting to see the principal, who occupies the inner office. There are no auxiliary rooms in connection with the principal's office, nor are there any guidance or other offices for specialized personnel.

Russellville

Special rooms for pupil activities.---For the elementary and high school pupils at Russellville there is just one small gymnasium, which is also used as the auditorium. For either use it is most unsatisfactory,

as there are no storage facilities, no special offices, and there are no separate toilet, shower, and locker rooms in connection with the gymnasium. There are, however, limited facilities of this nature in the regular toilet rooms for boys and girls. There are large glass areas which cause considerable glare, and the acoustical condition, from personal observation, was the worst in Brown County except, possibly, the Mt. Orab auditorium - gymnasium.

The library is in connection with the study hall. The pupils sit at desks rather than tables, lighting is below minimum standards, and there has been no acoustical treatment. Further, there are no offices, conference, or workrooms.

Special service rooms.--There are no separate toilet, locker, or shower rooms for the custodial staff. There are no sinks for the custodians and there is storage space on the first floor only.

Satisfactory storage space for the whole school has not been provided. The only storage found at the time of the building evaluation consisted of small areas in connection with the heating plant, the cafeteria, and the library.

The cafeteria is small, but could serve the school population if the lunch periods were staggered. However, the authorities have chosen to have the high school pupils eat in the cafeteria, and to have the elementary school pupils eat in their classrooms after being served in the cafeteria. The cafeteria is badly in need of decoration and is not treated acoustically. There are no special rooms for the exclusive use of the teachers, nor are there any other special rooms except for one used to isolate an occasional ill pupil.

Administrative rooms.--The principal's office consists of one room well situated on the first floor. However, there are no auxiliary rooms, not even a waiting room, and the full-time secretary is required to share the office with the principal. There are no guidance or other offices for specialized personnel.

Sardinia

Special rooms for pupil activities.--The gymnasium at Sardinia consists of only one play area, namely, the official-size floor used primarily for basketball. There are adequate toilet, shower, and locker facilities for boys and girls, but there is practically no storage space, and there are no offices or special rooms. Further the gymnasium doubles as the auditorium for both school and community affairs.

The library is in connection with a classroom which is used chiefly as a study hall. The lighting is very poor, there is no acoustical treatment, and the seating is fixed to the floor, preventing the flexibility required for classroom or study hall needs. There are, of course, no office or conference rooms.

Special service rooms.--Custodians should be provided with ample storage and work space with lockers, toilets, and showers, near to, but separate from the boiler room. In addition they should have sufficient spaces for sinks and storage of utensils on each floor. None of these is provided in the Sardinia school, the custodians finding it necessary to keep equipment and supplies in the boiler room.

Except for a small storage space in connection with the principal's office, there is no storage for the whole school. In each class-

room storage space is limited, also.

The cafeteria is in the basement, poorly located in relation to pupil traffic and outside access. Lighting is poor and there is no acoustical treatment. The food, however, is well prepared. There are no special rooms for the use of the teachers, nor are there other special rooms except a "health room", which is not furnished or used for the implied purpose.

Administrative rooms.--The principal's office does not have a waiting room, conference room, toilet room, or separate room for the secretary. As stated above, there is a small storage room. There are no guidance or other offices.

Scott

Special rooms for pupil activities.--At Scott there are no gymnasium and library suites, or auditorium and auxiliaries.

Special service rooms.--There are no separate toilet, shower, and locker facilities for the custodian, and his only storage space is in the coal-storage room adjoining the boiler room. Storage space for the whole school is grossly inadequate to the extent that the "two-by-four" office is crowded with instructional supplies.

Although the cafeteria is located in the basement, it is so elevated that suitable daylighting is available. It is not acoustically treated, however. There are no special rooms for the seclusion, work, and rest of the teachers, nor are there any other special rooms.

Administrative rooms.--The office suite for the principal consists of one room which actually measures eight feet by eight feet, yet

contains a variety of instructional supplies, playground equipment, and candy which is sold to pupils during the morning recess period. Needless to say, there are no guidance or other offices.

St. Martin

Special rooms for pupil activities.--At this elementary school, as at Scott, there are no gymnasium and library suites, or auditorium and auxiliaries.

Special service rooms.--There are no toilet, shower, and locker facilities for the part-time custodian, nor are there storage spaces for his use except in the quite small furnace room.

There is no storage room for the whole school. To compensate for this deficiency, storage cabinets have been placed in several corridor locations.

Although there is no kitchen or cafeteria at St. Martin, there is a food service program similar to that at Ripley Elementary and at St. Michael, also in Ripley. Food is prepared at the high school, transported to the elementary school, served on trays, and eaten in the classrooms.

For the teachers, several of whom are Catholic Sisters, there is a small room for seclusion and rest. In connection with this room there are toilet and wash facilities. There are no other special rooms in the school.

Administrative rooms.--The principal's office suite consists of one room only, there being no conference or waiting rooms. There are no guidance or other special offices.

St. Michael

Special rooms for pupil activities.--There are no gymnasium and library suites, or auditorium and auxiliaries at St. Michael. On occasion, however, a basement room is used for minimal play and auditorium functions.

Special service rooms.--There are no special facilities for the part-time custodian, and his only storage space is in the furnace room. As for storage for the whole school, no space has been provided.

Food for the cafeteria service is prepared at the Ripley High School and transported to St. Michael where it is served and eaten in the basement room mentioned above.

As for teachers' rooms, the four teachers at this school are Catholic Sisters. Their living quarters are attached to the school building. There are no other special rooms.

Administrative rooms.--The office of the principal, or head teacher, is located on the second floor, not conveniently accessible to visitors. There are no auxiliary facilities in connection with the one-room office, nor are there any guidance or other special offices.

Summary

The special rooms of each public school in Brown County, Ohio, were evaluated according to the criteria in the Guide for Evaluating School Buildings described in Chapter II. Appendix G is comprised of these criteria.

Special rooms for pupil activities.--The highest score allotted to any of the schools in the gymnasium item was eighteen out of a

possible thirty for the gymnasium suite of the Aberdeen school. Even this score is interpreted as sub-satisfactory. Sardinia is second high with a score of fifteen, and Ripley High is third with a score of fourteen. These two scores are interpreted as borderline. Next is Georgetown High with a score of twelve or generally poor. The remaining fifteen schools have scores of zero, interpreted as thoroughly unsuitable.

In the library suite item only three schools have any credit. These are Fayetteville, Georgetown High, and Ripley High, all with a score of six out of a possible twenty. This score is interpreted as very poor.

In the auditorium item two schools received some credit, Georgetown High a score of eight out of a possible twenty, interpreted as generally poor, and Ripley High a score of two, interpreted as obsolete.

Special service rooms.---In the custodians' rooms item Georgetown High and Hamersville each have a score of six out of a possible ten. This score is interpreted as sub-satisfactory. Green-Sterling is next with a score of four or generally poor, while Fayetteville and Ripley High each have a score of three or very poor. Six schools have a score of one or obsolete. These are Aberdeen, Higginsport, Jackson, Mt. Orab, Russellville, and Scott. The remaining eight schools have no credit and are evaluated as thoroughly unsuitable in this item.

In the storage rooms item Hamersville has a score of ten or excellent; Fayetteville and Jackson a score of six or sub-satisfactory; Higginsport and Ripley High a score of four or generally poor; Georgetown

High, Green-Sterling, Mt. Orab, Ripley Elementary, Russellville, and Sardinia a score of two or inadequate. The remaining eight schools have no credit and are thoroughly unsuitable in this item.

For the cafeteria item Eagle received the highest score of the nineteen schools, six out of a possible ten, or sub-satisfactory. Two schools, Higginsport and Scott, have a score of four or generally poor, and four schools, Aberdeen, Fayetteville, Hamersville, and Jackson, have a score of two or inadequate. The remaining schools have no score; therefore, they are considered thoroughly unsuitable in this item.

Three schools have full or partial credit for their teachers' rooms. Green-Sterling has a score of two or inadequate, St. Martin a score of six or sub-satisfactory, and St. Michael a score of ten or excellent.

Administrative rooms.--The principal's office of the Georgetown High School has the highest rating, twenty-two out of a possible thirty or satisfactory. Aberdeen follows with a score of fourteen or generally poor. Three schools, Fayetteville, Mt. Orab, and St. Martin, have a score of ten or very poor, and three schools, Hamersville, Higginsport, and Ripley High, have a score of six or inadequate. Green-Sterling and Ripley Elementary each have a score of two or obsolete, while the remaining schools have no credit, which is thoroughly unsuitable.

In the guidance and other offices item, all of the schools have no credit and, therefore, are considered to be thoroughly unsuitable in this item.

Composite special rooms evaluation.--The highest possible score

in the special rooms evaluation is one hundred and seventy. The highest score attained in this evaluation of the public schools in Brown County is sixty, or very poor, the score allotted to the Georgetown High School. Aberdeen and Ripley High each have a score of thirty-five or inadequate, while the remaining schools have various quantitative scores, all of which are interpreted as obsolete or thoroughly unsuitable.

CHAPTER XI

UTILIZATION OF EXISTING SCHOOLHOUSING

With enrollments increasing, programs expanding, and the construction of new buildings still lagging far behind recognized needs, school administrators, generally, are confronted with the problem of getting maximum utilization out of existing schoolhousing, pending the completion of additions and entire school plants. Various methods are being employed to increase utilization, ranging from minor changes in class scheduling to having two shifts of pupils each day, each shift spending less than a normal school day in school.

Utilization, defined by one authority¹ as the maximum efficient use of space and facilities in such a manner that the educational goals sought are achieved to the fullest degree possible, is usually measured in terms of classroom utilization and pupil-station utilization computed as a percentage for each room and for the whole school. If, in a six-period school day, a classroom is used three periods, its utilization is fifty percent. If this same condition is found to prevail for the whole school, then the classroom utilization for the school is fifty percent. Pupil-station utilization can be computed for each class period, for each room, and for the whole school. For example, if during one class period a class of fifteen pupils uses a classroom with thirty pupil-stations, the pupil-station utilization for that period is fifty percent. This same formula can be used to compute the pupil-

¹ John W. Lewis, "Ways of Increasing Utilization," The School Executive, 68 (September, 1948), 65.

station utilization of each classroom, each special room, and of the entire school for a given period of time such as a school day.

N. E. Viles,² Specialist for School Plant Management, U. S. Office of Education, states that it does not seem feasible to attempt to establish national utilization norms, since the utilization of each classroom and of each building is to be computed separately and on the basis of the needs of the type of activity carried on in each room. However, he goes on to say that it is possible to compare utilization records for similar rooms in local school systems. It appears, then, that Viles places the responsibility for the continuous evaluation of pupil-station and classroom utilization upon those closest to the educational activity in each classroom and in each school.

To help them in current and long-range planning, school administrators should at all times have available up-to-date information concerning classroom and pupil-station utilization prepared **co-operatively** by teachers and principals. To help them identify evidences of **over-**utilization, Charles Bursch,³ Director, Division of Schoolhouse Planning, State Department of Education, Sacramento, California, has listed five criteria: (1) seating so crowded that pupil and teacher circulation disturbs pupils at work at their stations; (2) lack of free floor

² N. E. Viles, "Measuring School Building Utilization," The School Executive, 68 (September, 1948), 62-64.

³ Charles Bursch, "When is a School Building Overcrowded," The School Executive, 68 (September, 1948), 72.

space for large-type projects; (3) inadequate storage because of insufficient floor area; (4) absence of essential instructional fixtures and equipment and, if provided, insufficient space for them; (5) less pupil-stations than the average class size adopted by the school district for the activity and no space to add stations.

Any evaluation of the utilization of public school buildings in Brown County, Ohio, based upon the findings of this study of the public schools of the county, will be of little value if there is much delay in formulating and implementing concrete plans for school district reorganization and for schoolhouse construction, because utilization is dynamic. It was felt, however, whether or not there is a delay, that classroom and pupil-station utilization was a problem important enough to be considered more seriously and more intelligently by classroom teachers, supervisors, principals, and administrators in the public schools of the county than has been true to date. Therefore, when the schoolhouses were being evaluated, the principal and teachers in each school co-operated in making a classroom and pupil-station utilization study. It was found that some of the classrooms were used by not enough pupils, while others were used by too many, and that several schools did not use all their rooms all the time, while other schools were badly in need of additional classrooms.

The major findings of this evaluation of the utilization of existing schoolhousing in Brown County, Ohio are shown in Table 21, which discloses for each school and for the school system the number of classrooms, the number of classrooms in each of several designated

TABLE 21
 NUMBER, AREAS, AND UTILIZATION OF THE CLASSROOMS
 OF THE PUBLIC SCHOOLS IN BROWN COUNTY, OHIO, 1951-52

Name of School	Number of Classrooms	Number of Classrooms With the Following Areas in Square Feet						Class Periods Per Week *	Room Periods Per Week **	Number of Room Periods Per Week Classrooms Are Occupied by Classes of the Following Sizes							Percent Classroom Utilization
		Less than 500	500-600	600-700	700-800	800-900	Over 900			0	1-10	11-20	21-30	31-40	41-50	51+	
Aberdeen	12	1	-	7	2	1	1	40	480	35	66	45	61	208	42	23	93
Decatur	7	-	1	6	-	-	-	40	280	25	20	75	65	95	-	-	91
Eagle	6	-	-	6	-	-	-	40	240	80	-	40	120	-	-	-	67
Fayetteville ***	8	1	2	3	1	-	1	30	240	75	35	25	30	50	25	-	69
Georgetown El.	12	-	2	-	10	-	-	40	480	-	-	-	280	200	-	-	100
Georgetown High	14	4	-	7	-	2	1	40	560	193	10	108	161	38	10	40	66
Green-Sterling	6	-	-	6	-	-	-	40	240	-	-	-	-	120	120	-	100
Hamersville	13	2	2	7	-	-	2	40	520	118	30	40	95	132	85	20	77
Higginsport	9	1	1	-	-	6	1	40	360	55	45	65	115	40	40	-	85
Jackson	4	-	-	4	-	-	-	40	160	-	-	-	80	40	40	-	100
Lewis	4	-	-	4	-	-	-	40	160	80	-	-	-	40	40	-	50
Mt. Orab	15	3	4	4	3	-	1	40	600	108	27	35	160	190	45	35	82
Ripley El.	11	-	1	9	-	1	-	40	440	-	-	40	240	80	80	-	100
Ripley High	10	1	3	-	2	2	2	40	400	91	52	47	118	60	15	17	77
Russellville	8	2	-	1	3	2	-	40	320	7	25	73	55	95	-	65	98
Sardinia	9	-	1	-	5	2	1	40	360	15	5	30	125	125	45	15	96
Scott	4	-	4	-	-	-	-	40	160	-	-	-	80	40	40	-	100
St. Martin	6	3	2	1	-	-	-	40	240	-	-	-	40	120	80	-	100
St. Michael	4	-	-	4	-	-	-	40	160	-	-	-	120	40	-	-	100
Total	162	18	23	69	26	16	10	-	6400	882	315	623	1945	1713	707	215	86.2

* Elementary schools are considered as having forty class periods a week.

** Determined by multiplying the number of classrooms by the number of class periods per week.

*** Fayetteville High School has thirty class periods per week.

areas, the number of class periods per week, the number of room periods per week, (arrived at by multiplying the number of rooms by the number of class periods), the number of room periods per week used by classes of certain designated sizes, and the percent of classroom utilization.

Specifically, the table shows that there are one hundred and sixty-two classrooms in the nineteen public schools of the county with Mt. Orab having the largest number, fifteen, and Jackson, Lewis, Scott, and St. Michael each having four, the lowest number of classrooms for any one school. Eighteen classrooms have areas of less than five hundred square feet, twenty-three have areas of five hundred to six hundred square feet, sixty-nine have six hundred to seven hundred, twenty-six have seven hundred to eight hundred, sixteen have eight hundred to nine hundred, and ten classrooms have over nine hundred square feet. Almost all of these classrooms fail to meet the criteria for the sizes of classrooms set forth in Chapter IX.

Continuing with the findings shown in Table 21, the school week is organized uniformly into forty class periods except for Fayetteville High School, which has six sixty-minute periods. The number of room periods a week was arrived at by multiplying the number of classrooms by the number of class periods in a school week. During each week there are six thousand four hundred room periods in the nineteen schools. Eight hundred and eighty-two of these are not used, three hundred and fifteen are used by classes of from one to ten pupils, six hundred and twenty-three are used by eleven to twenty pupils, one thousand nine hundred and forty-five by twenty-one to thirty pupils, one thousand

seven hundred and thirteen by thirty-one to forty pupils, seven hundred and seven by forty-one to fifty pupils, and two hundred and fifteen room periods by over fifty pupils. The classroom utilization was found to range from fifty to one hundred percent, being 86.2 percent for the school system. There was only one school, Lewis, with a classroom utilization of less than sixty-six percent. These data show clearly that there are too many quite small classes and too many rather large classes.

A more elaborate presentation of the classroom and pupil-station utilization of these schools for the school year 1951-1952 follows in alphabetical order:

Aberdeen

Six classrooms at Aberdeen are used by the six elementary grades, one grade to each classroom. The smallest of these has six hundred and thirty-eight square feet, while the largest has seven hundred and twenty square feet. The number of pupils assigned to each room varies from twenty-nine to forty-two. It is concluded readily on the basis of class size and classroom area criteria in Chapter IX that these classrooms have too many pupil-stations, but to what extent they are over-utilized is not determinable without knowing what utilization policy has been formulated by the board of education. Actually, no policy has been acted upon; therefore, a percentage of utilization based on board of education policy can not be obtained. Ideally, however, a room of this size should have not more than twenty-five pupils assigned to it.

In addition to the manual arts shop and gymnasium, six rooms are used for classroom purposes at the high school level. Room 201 on the second floor has eight hundred and thirty-two square feet with thirty-six pupil-stations. It is vacant seven of the forty class periods each week, and during the remaining periods has classes varying in size from five to thirty-six. Room 202 has seven hundred square feet and thirty-five pupil-stations. It is vacant five class periods each week, while during the other periods it has classes varying in size from five to thirty-five. The study hall has one thousand three hundred and eighty square feet and is sixty feet nine inches in length and twenty-two feet nine inches in width. Currently, ninety-five pupil-stations are in this room, but the largest number of pupils using it at any one time is seventy-five, while the smallest number is thirty-five. It is used five periods each week as a classroom and thirty-five periods as a study room.

The science room has six hundred and ninety-six square feet and thirty pupil-stations. It is not in use during five periods each week, but during thirty-five periods has classes varying in size from fifteen to twenty-nine. The typing room has four hundred and eighteen square feet and seventeen pupil-stations. It is used as an auxiliary study room five periods each week, is vacant five periods, and during the other periods classes varying in size from one pupil to twelve pupils are in session. The home economics classroom has six hundred and sixty square feet. It is utilized every class period either for conference or for classes varying in size from four to sixteen. The classroom

utilization of the whole school is ninety-three percent.

Decatur

Three classrooms, with areas of five hundred and forty-two square feet, six hundred and seventeen square feet, and six hundred and twenty-three square feet, respectively, are used by elementary pupils at Decatur. Needless to say, there are two grades to each of the three rooms and the number of pupils ranges from thirty in the fifth and sixth grade room to thirty-five in the third and fourth grade room.

At the secondary level, the study hall, which is used for several classes as well as study, has six hundred and seventy-five square feet and twenty-five pupil-stations. It is vacant five periods each week and is used by eleven to twenty-four pupils during each of the remaining periods. Room 1 has six hundred and twenty-four square feet and thirty-four pupil-stations. It is vacant five periods each week and is used by fourteen to thirty-two pupils the remaining periods. Room 6 has six hundred square feet with twenty-eight pupil-stations, and is used forty periods each week by groups of pupils ranging in number from eight to thirty. During several periods it is used concurrently as a classroom and study room. The typewriting room, which is very small, having one hundred and twelve square feet and six pupil-stations, is used fifteen periods each week, ten by a typewriting class of six pupils and five by a Latin class of two pupils. The home economics classroom has six hundred and sixty square feet and sixteen pupil-stations, and is used twenty-five periods each week both as a general

classroom and as a home economics classroom by classes ranging in size from thirteen to fifteen. The classroom utilization of the Decatur school is ninety-one percent.

Eagle

At Eagle there are six classrooms, four of them being used by the elementary pupils of the first eight grades who attend there, and two of them being used largely for storing unused equipment. The room sizes vary from five hundred and fourteen square feet to five hundred and seventy-seven. There are two grades in each of the four rooms used, and the number of pupils in each room ranges from twenty to twenty-five. The classroom utilization is sixty-seven percent.

Fayetteville

This is a six-year high school with the school day divided into six sixty-minute periods. Room 101 has six hundred and seventy-two square feet and forty-six pupil-stations. It is used every class period by classes ranging in size from five to forty-seven. Room 102 has six hundred and seventy-two square feet, also, but has thirty-eight pupil-stations. It is used every period by classes ranging in size from thirty-five to forty pupils. Room 103 has five hundred and fifty-six square feet and thirty-four pupil-stations, and is used every period by classes of from six to thirty-four pupils. Room 201 has seven hundred and sixty-eight square feet and thirty-five pupil-stations. It is used only fifteen of the thirty periods each week, ten by classes with a membership of thirty-six and five by a class of eight. The home economics

room has only four hundred and fifty square feet and twelve pupil-stations. It is used only five periods each week.

The room for teaching typewriting has four hundred and ninety-six square feet with fourteen pupil-stations, and is used ten periods a week, five by a class of fourteen and five by a class of eight. The business education room, which has an area of five hundred and forty-six square feet and twenty-five pupil-stations, is used five periods each week by a class of nine pupils. The library-study hall has one thousand two hundred and ten square feet and seventy pupil-stations, and is used by an average of twenty-five pupils each period. The science laboratory has six hundred and thirty-six square feet and twenty-four pupil-stations. It is used for science and other classes, ranging from thirteen to eighteen pupils, fifteen periods each week. The classroom utilization is sixty-nine percent.

Georgetown Elementary

This six-year elementary school has twelve rooms with areas ranging from five hundred and forty-eight square feet to seven hundred and sixty square feet. All of the classrooms are in use all the time and have classes ranging in number from twenty-six to thirty-seven. The classroom utilization of this school is one hundred percent.

Georgetown High

Room 1 has one thousand two hundred and forty-six square feet, being forty-four and one-half feet long and twenty-eight feet wide. It has twenty-four pupil-stations and is used exclusively for instruction

in home economics. Twenty-one pupils use it ten periods each week, while eight pupils use it an additional ten periods. In other words, it is used twenty periods and is vacant twenty periods. Room 4 which has four hundred and eighty square feet and twenty-six pupil-stations is used full time as an elementary classroom for the overflow from the elementary school. Room 5 has eight hundred and fourteen square feet and forty-four pupil-stations. It is used thirty periods for classes and ten for study, with the number of pupils varying from twelve to forty-three. Room 6 has eight hundred and fourteen square feet, also, but has fifty pupil-stations. It is used only fifteen periods a week, five when it is filled to capacity as a study hall, and ten when it is being used for vocal music instruction for thirty to forty pupils. At times it is used as an audio-visual room, also.

Room 10, the science laboratory, has six hundred and sixteen square feet and twenty-four pupil-stations. It is rarely used, however, as virtually all of the laboratory work is done at the demonstration table in room number 5. Room 11 has six hundred and sixteen square feet and thirty-nine pupil-stations. It is vacant ten periods a week, is used as a study hall five periods, and for classes ranging from thirteen to forty the other twenty-five periods. Room 12 has six hundred and sixteen square feet and twenty-nine pupil-stations. It is vacant five periods a week and is used by classes ranging in number of pupils from twenty-one to twenty-eight the remaining thirty-five periods. Room 13 has six hundred and sixteen square feet, also, and has thirty pupil-stations. It is vacant ten periods a week, used for study five periods,

and by classes ranging in size from five to twenty-four pupils the remaining twenty-five periods. Room 14 has one thousand two hundred and thirty-two square feet and eighty pupil-stations. It is used all day as a study hall by from fifty-one to eighty-one pupils.

Room 15, which has four hundred and eighty-four square feet and twenty-five pupil-stations, is used only five periods a week by nine pupils. Room 16, with six hundred and sixteen square feet and thirty-four pupil-stations, is used thirty-five periods a week by classes ranging in size from nineteen to thirty-two. It is vacant five periods each week. Room 17 has six hundred and sixteen square feet, also, and has thirty-three pupil-stations. It is vacant nine periods each week, used as a study room six periods, and as a classroom twenty-five periods, with classes ranging in size from nineteen to thirty-two. Room 18, with an area of six hundred and sixteen square feet and thirty-six pupil-stations, is used only twenty of the forty periods a week by classes ranging in size from nineteen to thirty-two. Room 19 has an area of four hundred square feet, and is used every period for either group or individual instruction in instrumental music. Room 20 has an area of four hundred and eighty-four square feet and sixteen pupil-stations, and is used ten periods a week for giving instruction in typewriting, five periods to sixteen pupils, and five periods to eleven pupils. The classroom utilization of the Georgetown High School is sixty-six percent.

Green-Sterling

An eight-year elementary school, Green-Sterling has only six classrooms, each with an area of six hundred and eighty square feet. Of necessity, most of the classrooms have pupils of more than one grade, and the number of pupils in each classroom ranges from twenty-one to forty-four. The classroom utilization is one hundred percent.

Hamersville

Five rooms varying in area from three hundred and seventy to six hundred and eighty square feet are used by the elementary pupils at Hamersville. The number of pupils per room ranges from twenty-seven to forty-seven.

In the high school section, room 10 has five hundred and fifty-two square feet and twenty-seven pupil-stations. It is vacant twenty periods a week and is used the other twenty periods by classes ranging in size from twenty-six to thirty pupils. Room 11 has six hundred and nine square feet and thirty-four pupil-stations. It is vacant eighteen of the forty periods each week, and has classes ranging from fifteen to thirty-three pupils the remaining periods. Room 13 has one thousand and fifteen square feet and sixty pupil-stations. It is vacant ten periods a week, and has classes of from six to thirty-nine pupils the remaining periods. Room 14 has six hundred and thirty square feet and thirty-three pupil-stations. It is vacant twenty periods a week and has classes ranging in size from seventeen to thirty-five the other twenty periods.

Room 15, with an area of six hundred and forty-four square feet

and thirty-six pupil-stations, is vacant fifteen periods a week and has classes of thirty-three pupils the other twenty-five periods. Room 16 is small, having an area of three hundred and forty square feet and sixteen pupil-stations, and is used for teaching typewriting and shorthand. It is vacant twenty periods a week, and has classes of from six to fifteen pupils the remaining periods. The study hall, being fifty-eight feet long and twenty-four feet wide, has an area of one thousand three hundred and ninety-two square feet. Eighty-four pupil-stations are assigned to this room which is vacant five periods and used thirty-five periods a week by from thirty to eighty pupils. The home economics classroom has an area of five hundred and eighty-eight square feet and has twenty pupil-stations. It is vacant ten periods a week, but is used by from nine to twenty-one pupils during the remaining periods except for five periods which are reserved for conferences with the teacher. The classroom utilization of the Hamersville school is seventy-seven percent.

Higginsport

At Higginsport four classrooms are used by the elementary pupils. Each of these classrooms has an area of eight hundred and sixty square feet, and the number of pupils in each room ranges from twenty-seven to forty-seven.

In the high school section, room 5 has eight hundred and sixty square feet and thirty-five pupil-stations. It is vacant five periods a week, and has classes of from six to eighteen pupils during the other periods except the last period of the day when this and several other

rooms are used for homeroom activities. Room 6 has eight hundred and thirty-two square feet and thirty-three pupil-stations. It is vacant fifteen periods, used for homeroom activities five periods, and used for classes of six to eighteen pupils the remaining twenty periods. Room 7 is a business education classroom with an area of four hundred and sixty square feet and twenty-two pupil-stations. It is vacant ten periods a week, while classes of from four to fourteen pupils use it the other thirty periods.

The science room has an area of five hundred and sixty-two square feet and twenty pupil-stations, and is used by classes of from ten to eighteen pupils twenty periods a week, being vacant the remaining twenty periods. The study hall has an area of one thousand one hundred and twenty-two square feet and has thirty-six pupil-stations. It is vacant ten periods a week and is used by eighteen to thirty pupils the other thirty periods. The home economics room has an area of eight hundred and thirty-eight square feet and, in a sense, has forty-five pupil-stations, as it is used as the cafeteria, also. Actually, it is used for home economics only ten periods a week. Higginsport has a classroom utilization of eighty-five percent.

Jackson

An eight-year elementary school, Jackson has but four classrooms, each with an area of six hundred and sixteen square feet. The number of pupils to a classroom varies from thirty-one to forty-four. Jackson's classroom utilization is one hundred percent.

Lewis

In a sense, Lewis, a six-year elementary school, has four classrooms; however, two of these comprise the auditorium, which has folding doors incorporated in such a way that it can be made into two classrooms. In Table 21 it is considered as having four classrooms. For several years only two classrooms have been used, each having three grades assigned to one teacher. The four classrooms each have an area of six hundred and sixteen square feet, and of the two in use one has forty-one pupils while the other has thirty-six. The percent of classroom utilization of this school is fifty percent.

Mt. Orab

At Mt. Orab, six classrooms are used by the first six grades, one grade to each classroom. The areas of these rooms range from five hundred and forty-one square feet for the smallest one to seven hundred and seventeen square feet for the largest one, while the number of pupils assigned to a room ranges from twenty-eight to fifty.

In the high school section, room 8 is utilized every class period by classes in business education, which include typewriting, shorthand, and bookkeeping. The area of the room is six hundred and thirty square feet and there are thirty pupil-stations. The number of pupils enrolled in the classes meeting in this room ranges from six to twenty-five. Room 101 has six hundred square feet and thirty-eight pupil-stations, and is in use thirty-five periods a week by classes ranging in size from six to thirty-three. Room 102, with an area of seven hundred and ten square feet and thirty-four pupil-stations, is in

use twenty-five periods a week by ten to thirty-six pupils. Room 106 has an area of four hundred and seventy-five square feet and has forty pupil-stations. It is vacant seventeen periods each week and has classes ranging in size from twenty-three to thirty-two during the remaining twenty-three periods. Room 107 is a science laboratory with an area of four hundred and eighty square feet and sixteen pupil-stations. It is used only nine periods each week by six to twenty-nine pupils. Room 206, with an area of seven hundred and fifty square feet and forty-five pupil-stations, is in use thirty-five periods a week by from twenty-four to thirty-six pupils. Room 207, a very small classroom with a length of twenty-two feet nine inches and a width of nineteen feet ten inches (four hundred and fifty-three square feet), has thirty-three pupil-stations, and is in use thirty-three periods each week by classes ranging in size from twelve to thirty-two.

The study hall is seventy feet long and twenty-two feet four inches wide, making its area one thousand five hundred and sixty square feet. In addition, at one end there is a library with two hundred and twenty-four square feet. There are one hundred and fifteen pupil-stations, and the room is in use every class period by from forty to one hundred pupils. The music room, located in the basement, has eight hundred and twenty-five square feet and is in use Tuesday afternoons and all day each week on Wednesday, Thursday, and Friday. The home economics room is used as the cafeteria, too. It has an area of seven hundred and fifty-seven square feet and, counting the cafeteria seating, has eighty pupil-stations. Home Economics I, with twenty-four pupils, uses this

room the first two class periods each day, and Home Economics II, with sixteen pupils, used it the last two periods. A room named the Commercial room has six hundred square feet and thirty-seven pupil-stations. It is used only ten periods a week by one class with thirty-three pupils and by another with twenty-six. Mt. Orab has a classroom utilization of eighty-two percent.

Ripley Elementary

There are eleven classrooms in this elementary school, and their areas range from five hundred and eight square feet to eight hundred and sixty-five square feet. The smallest room, however, is used by a small class of slow-learning pupils, while the remaining rooms have from twenty-one to forty-four pupils. The classroom utilization of the school is one hundred percent.

Ripley High School

Room 11 has seven hundred and thirty square feet and fifty pupil-stations. It is used twenty-five periods a week by classes of from twenty-six to thirty-six pupils, and it is used ten periods as a study room by thirty-six pupils. It is vacant five periods a week. Room 12 is used every day for instruction in instrumental music. It has seven hundred and twenty-three square feet and fifty pupil-stations. Rooms 16 and 18 are in use every class period by classes in home economics. Room 16 has six hundred and fifty-five square feet, and room 18 has six hundred and forty-one square feet. The suite was intended for a maximum class size of twenty-four pupils, and the classes range in size from

six to twenty-three. Room 20 has eight hundred and fifteen square feet and fifty-two pupil-stations. It is in use eleven periods each week by classes having twenty-four to twenty-six pupils, and six periods each week as a study hall by forty pupils. It is vacant the remaining periods.

Room 21, with an area of eight hundred and sixty-five square feet and forty-nine pupil-stations, is in use all class periods by classes ranging in size from seven to thirty-six. Room 22, the study hall, has one thousand and twenty square feet and seventy-three pupil-stations. Adjoining it is the library with two hundred and thirteen square feet and a seating capacity of twelve. The study hall is used five periods as a classroom by twenty-six pupils, and the remaining thirty-five periods as a study hall by twenty to seventy pupils. Room 23, the science laboratory, has an area of nine hundred and twenty-six square feet and fifty-two pupil-stations, including twenty-four laboratory stations. It is vacant thirteen periods each week, has a journalism class of six pupils for five periods, a general science class of fifty-two pupils for five periods and another general science class of forty-one pupils for five periods. Seven pupils use it seven periods, and eleven pupils use it five periods.

Room 24, with an area of four hundred and seventy-two square feet, has thirty pupil-stations, and is used thirty periods a week by classes ranging in size from five to twenty-six. It is vacant ten periods a week. Room 26 has five hundred and eighty square feet and thirty-three pupil-stations. It is used by classes of twenty to twenty-

six pupils thirty periods a week, and is vacant ten periods. Rooms 28 and 30 comprise the business education suite. Each has an area of five hundred and eighteen square feet, and room 28 has sixteen pupil-stations, while room 30 has twenty. Room 28 is used for instruction fifteen periods a week for a small number of pupils in business education classes. It is vacant five periods, and is used as a study room the remaining twenty periods by one to fourteen pupils. Room 30 is used for the instruction of six to seventeen pupils in typewriting fifteen periods a week, and is vacant the other twenty-five periods. The classroom utilization of this high school is seventy-seven percent.

Russellville

There are three classrooms for the six elementary grades at Russellville. Their areas range from six hundred and four square feet to eight hundred and ten, and the number of pupils to a room ranges from thirty-two to fifty-one.

In the high school section, the senior room has only four hundred and eighteen square feet, and it has twenty-eight pupil-stations. It is used every period by classes of ten to twenty-eight pupils. The junior room is slightly larger than the senior room, having an area of four hundred and forty square feet. It has twenty-nine pupil-stations and is used thirty-five class periods a week by classes of seventeen to twenty-eight pupils, and during five periods it serves as a study room. The study hall has eight hundred and forty square feet and sixty-one pupil-stations. It is used five periods each week as a classroom by

thirty-eight pupils, is vacant two periods each week, and is used the remaining time as a study hall by twenty-five to sixty-one pupils. A library with two hundred and twenty-eight square feet of floor space adjoins the study hall.

The business education room has seven hundred and twelve square feet and eighteen pupil-stations. It is vacant only two periods each week, being used by business education classes of seven to eighteen pupils. The science room has seven hundred and twelve square feet, also, but it has forty pupil-stations, and is used by science and other classes of eighteen to thirty-two pupils. Russellville's classroom utilization is ninety-eight percent.

Sardinia

At Sardinia, five rooms are used by the six elementary grades. The smallest of the five rooms has an area of seven hundred and fifty square feet, and the largest has eight hundred and fifty. The number of pupils per room ranges from twenty-eight to forty-eight.

In the high school section, room 3 is very small, having only two hundred and seventy-five square feet and ten pupil-stations. It is vacant ten periods a week, and used for the instruction of four to nine pupils in business education subjects the remaining periods. Room 5 has an area of seven hundred and fifty-five square feet and forty-eight pupil-stations. It is used as a study room by twenty to thirty pupils ten periods a week, and as a classroom the other periods by fifteen to twenty-eight pupils. Room 6 is smaller, having but five hundred square

feet and twenty-eight pupil-stations. It is vacant ten periods a week, and has classes of twenty-three to twenty-eight pupils thirty periods. Room 7 has seven hundred and fifty square feet of floor space and forty-two pupil-stations. Classes varying in size from twelve to twenty-eight pupils use it thirty-five periods, and it is vacant five periods.

The study hall has an area of one thousand two hundred and sixty square feet and seventy-four pupil-stations. It is used five periods by a class of twenty-eight pupils, and thirty-five periods as a study hall by twenty-eight to sixty-two pupils. At the rear of the room, there is an additional small area which serves as the library. The home economics room has an area of six hundred and fifty-five square feet and sixteen pupil-stations; however, it is used ten periods a week by twenty-five pupils. The cafeteria would not be mentioned here but for the fact it is used ten periods a week as a classroom, five periods for a science class of twenty-eight pupils, and five for a bookkeeping class of eighteen pupils. The cafeteria has an area of one thousand six hundred and twenty square feet and a seating capacity of one hundred and twenty. Sardinia's classroom utilization is ninety-six percent.

Scott

Scott is an eight-year elementary school with only four classrooms, each having an area of five hundred and eighty-eight square feet. The number of pupils assigned to a room ranges from twenty-one to forty-three, and since all the classrooms are used the classroom utilization is one hundred percent.

St. Martin

This is a six-year elementary school with one classroom for each grade. The areas of the rooms range from four hundred and twenty-eight to six hundred and forty-one square feet, and the number of pupils assigned to a room ranges from twenty-nine to forty-eight. The classroom utilization is one hundred percent.

St. Michael

This eight-year elementary school has four classrooms, each having an area of six hundred and eighty-two square feet. The number of pupils per room ranges from twenty to thirty-one, and the classroom utilization is one hundred percent.

Summary

Enrollments are increasing in the public schools of Brown County, Ohio, as in most parts of the State of Ohio, and of the United States. In recognition of the administrative and educational problems particularly as they relate to schoolhousing, a detailed study was made of the utilization of the public schools in Brown County, Ohio.

A concise presentation of the major findings is in tabular form, showing for each school and for the school system the number of classrooms in certain designated area ranges, the number of class periods, the number of room periods, the number of periods per week classrooms are occupied by classes of designated sizes, and the percent of classroom utilization. A more elaborate analysis of the utilization of each school is presented in the alphabetical order of the schools.

It was found that the nineteen schools have one hundred and sixty-two classrooms, with Mt. Orab having the highest number, fifteen, while Jackson, Lewis, Scott, and St. Michael each have the lowest number which is four. Of the one hundred and sixty-two classrooms, eighteen have an area of less than five hundred square feet, twenty-three have an area of five hundred to six hundred square feet, sixty-nine have six hundred to seven hundred, twenty-six have seven hundred to eight hundred, sixteen have eight hundred to nine hundred, and ten have over nine hundred square feet of floor area. Almost all of the classrooms have areas smaller than the standards stated in Chapter IX.

All of the schools operate on a forty-period week except Fayetteville High School, which has six periods a day or thirty periods a week. The room periods which were arrived at by multiplying the number of class periods by the number of rooms ranged from a high of six hundred at Mt. Orab to a low of one hundred and sixty each for Jackson, Lewis, Scott, and St. Michael. The total number of room periods is six thousand four hundred.

An analysis of the number of periods a week that classrooms are occupied by classes of designated sizes disclosed that eight hundred and eighty-two of the six thousand four hundred room periods are not used, and that three hundred and fifteen are used by classes of from one to ten pupils, six hundred and twenty-three by classes of eleven to twenty pupils, one thousand nine hundred and forty-five by classes of twenty-one to thirty pupils, one thousand seven hundred and thirteen by classes of thirty-one to forty pupils, seven hundred and seven by classes

of forty-one to fifty pupils, and two hundred fifteen by over fifty pupils.

The percent of classroom utilization of the schools ranged from one hundred percent down to fifty percent, the average for the whole school system being 86.2 percent. Except for the Lewis school, which has a classroom utilization of fifty percent, the lowest percent of utilization is sixty-six.

CHAPTER XII

PROJECTION OF THE PROPOSED SCHOOLHOUSING

This projection of the schoolhousing program for Brown County, Ohio, is concerned chiefly with procedures preliminary to the actual rehabilitation of existing schoolhousing and the construction of new schoolhousing, and is concerned briefly with the typical steps in implementing any schoolhousing program. The present status of administrative units in Brown County is compared with generally accepted criteria for the size of satisfactory administrative units, and recommendations are made that would enable the public school system there to at least more nearly approach the size of a satisfactory administrative unit.

If reorganization of school districts were to become effective, new attendance units would need to be formed. The present status of the units in Brown County is compared with generally accepted criteria for the size of satisfactory attendance units and recommendations are made which, if carried out, would result in new attendance units that meet more nearly the criteria than the present units do.

Proposals for schoolhousing for the reorganized administrative and attendance units are presented for elementary and secondary schools. These proposals take into consideration the fact that most of the present schoolhousing will continue to be used for a number of years, and that a limited amount of new construction can be started, if world conditions do not become more serious, with very little delay.

If the recommended administrative and attendance units become established, the chief limitation on new schoolhousing and the rehabilitation of the present buildings to be continued in use will be in the area of financial resources. Most of the financial obligation will rest with the people of the county, but supplementary assistance will likely be available from at least one other source, the State of Ohio.

Transportation of pupils will be changed drastically from what it is now if the recommended reorganization is effected. There should be much more flexibility of routing and less duplication of routes. This would result in appreciable savings and in better service to the pupils. Suggestions are given in this chapter which will be helpful in implementing a new transportation system.

On July 19, 1952, a lay advisory committee representative of Brown County was appointed by the Brown County Board of Education. The helpful work of this new committee to date and suggestions for its future are discussed briefly.

Finally, the recommended steps that the board of education, the superintendent of schools, and the citizens of the community may go through to build their new schools are stated in their usual chronological order.

A major source of suggestions for reorganization of administrative and attendance units in Brown County is the report concerning school district reorganization in Ohio¹ which originated as a result of

¹ The Conference of Deans of Education, School District Reorganization in Ohio, Ohio University Center for Educational Service, October 30, 1948. Pp. 3-35.

the interest of the Ohio County Superintendents' Association, the Ohio Exempted Village Superintendents' Association, and the Ohio Association of School Administrators in problems related to school district reorganization. At the request of these associations, the Conference of Deans of Education of the five Ohio state universities was asked to develop the study. The Conference, in turn, delegated the responsibility for collecting data and making recommendations to the Center for Educational Service of Ohio University. The report after revision and approval by the Conference of Deans was published by the Ohio University Center for Educational Service. Considerable reference material was used by the Center in developing its report, the chief source being the report of the National Commission on School District Reorganization,² the recommendations of which have been adapted to the needs of public education in Ohio.

Reorganization of School Districts in Brown County

Criteria for the size of satisfactory administrative units.--

Criteria for the size of an administrative unit, defined as that geographic area within which all schools are under a single administrative head,³ are usually stated in terms of the number of teaching units and

² Howard A. Dawson and Floyd W. Reeves, Your School District. Washington: National Education Association, 1948. Pp. 5 / 286.

³ Carter V. Good, Editor, Dictionary of Education, p. 12. New York: McGraw-Hill, 1945. Pp. v / 495.

the number of pupils in the unit. Dawson developed statements in these terms by making a study of practices in city and county-unit school systems to determine how many persons are needed to provide the necessary administrative and supervisory functions in a standard administrative unit if overlapping of important functions is to be avoided. He arrived at an answer of thirty-one^{positions,} which he listed as follows:⁴

- 1 superintendent
- 1 clerk for superintendent
- 1 business manager
- 1 bookkeeper and clerk for business manager
- 1 supervisor of buildings and grounds
- 2 attendance officers
- 2 clerks for attendance officers
- 6 nurses
- 2 clerks for nurses
- 1 librarian
- 1 general supervisor
- 1 director of research
- 1 supervisor of atypical classes
- 1 supervisor of music
- 1 supervisor of art and writing
- 1 supervisor of health
- 1 supervisor of manual arts and vocational subjects
- 1 supervisor of household arts
- 2 supervisors of physical education
- 3 clerks for supervisors

Dawson recognized that this standard administrative unit could not be attained as a minimum for all school districts, as it requires from ten to twelve thousand pupils drawn from a total population of forty to fifty thousand. He, therefore, suggested two modifications to

⁴ Howard A. Dawson and Floyd W. Reeves, op. cit., p. 84.

be used as guides by areas not populous enough to attain economically the standard unit. He called these the median and the maximum modifications. The median modification includes seventeen administrative and supervisory personnel who can care economically for about six thousand pupils.⁵ Following is a list of these seventeen persons:

- 1 superintendent
- 1 clerk for superintendent
- 1 bookkeeper and business assistant to superintendent
- 1 attendance officer
- 1 clerk for attendance officer
- 1 clerk for nurses
- 1 head janitor and repairman
- 1 librarian
- 2 elementary school supervisors
- 1 secondary school supervisor
- 1 vocational education supervisor
- 2 clerks for supervisors
- 3 health nurses

The maximum modification of the standard unit includes only four administrative and supervisory personnel and should not be expected to care for more than one thousand seven hundred and fifty pupils. The list of four persons follows:⁶

- 1 superintendent
- 1 bookkeeper and clerk for superintendent
- 1 nurse-attendance officer
- 1 clerk for nurse-attendance officer

⁵ The Conference of Deans of Education, A Report on School District Reorganization in Ohio, p. 56. Ohio University Center for Educational Service, December, 1948.

⁶ Ibid., p. 56.

The Conference of Deans, after studying the report of the National Commission on School District Reorganization and after analyzing the status of school district organization in Ohio, formulated five basic criteria which are recommended as minimum standards for the administrative unit in Ohio. These criteria,⁷ which follow, are accepted as stated by the Conference of Deans to be the criteria for the reorganization of school districts in Brown County, Ohio:

1. It shall offer an educational program from grade 1 through at least the 12th [sic] grade.
2. It shall disregard, if desirable, the boundaries of other political subdivisions in creating the administrative unit.
3. It shall, so far as possible, give consideration to the social, cultural and economic factors which make up the natural community and seek close relation between such community and the unit.
4. It shall have a minimum of 1500 pupils, with 50 teachers. (In setting this minimum figure, there is no suggestion that parts of effective administrative units should seek or be granted separate status merely because they reach this minimum. Administrative units should be larger. However, some entire counties, which form logical social and economic communities, and thus, natural administrative units, have only a few more than 1500 pupils. The Conference considers it unwise to recommend criteria for administrative units, the enforcement of which would require the combining of two or more counties.)
 - a. For better supervisory services, 5-6,000 pupils with 166-200 teachers is desirable.
 - b. For complete supervisory services 10-12,000 pupils with 333-400 teachers is desirable as a minimum.
5. Administrative responsibility shall be lodged in one board of education and one superintendent of schools.

⁷ The Conference of Deans, op. cit., p. 22.

The report of the Conference of Deans states that the creation of administrative units based on these five criteria will result in the following advantages:⁸

1. One board of education with responsibility for over-all planning of policy and advancement of the educational program.
2. One administrative superintendent with responsibility for directing and coordinating the educational activities of the system.
3. Democratic support and interest of the people of the community in a more effective educational program.
4. More adequate business management and supervision of instruction.
5. Reduction of the number of small, inefficient administrative units, with larger, more effective units replacing them.
6. Encouragement for the establishment of more effective attendance units through control of larger numbers of pupils by the administrative unit.
7. More effective educational return per dollar spent, with the possibility of additional services in vocational opportunities, supervisory service, and special services.
8. A more comprehensive educational program possible of attainment.
9. More economical transportation routes operated through reduction of duplication of travel.

Present status of administrative units in Brown County, Ohio.--

There are a superintendent of schools and a board of education for the Georgetown Exempted Village School District and a superintendent and board of education for the Brown County School District. In addition, there are local boards of education with a principal, sometimes called a local superintendent, but legally known as executive head of the

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The Conference of Deans, op. cit., pp. 21-22.

local school district, for each of the fourteen districts under the supervision of the Brown County Board of Education. This adds up to sixteen boards of education for the county, each board with five members, a total of eighty individuals. The number of teachers responsible to any one board of education ranges from two in the Lewis Local School District to twenty-five in the Georgetown Exempted Village School District. The number of pupils in each school district ranged in May, 1952, from sixty-four in the Lewis Local School District to six hundred and forty-five in the Georgetown Exempted Village School District. Table 6 in Chapter IV shows that the total enrollment in the nineteen public schools of the county in May, 1952, was four thousand four hundred and sixty-one, and Table 8 in Chapter IV shows that a projection of school enrollment for the entire county indicates that during the school year 1957-1958 an enrollment of slightly under six thousand can be expected.

In 1950, the then existing Ohio Citizens Commission For The Public Schools sponsored a survey of school population in each of the eighty-eight counties in Ohio.⁹ Dr. Ronald B. Thompson, Registrar, The Ohio State University, was secured to supervise the survey. His prediction showed that by the year 1958 the total enrollment in grades one through twelve in Brown County would be five thousand nine hundred and forty. Thompson projected his predictions to the year 1965, for

⁹ Ronald B. Thompson, Estimates of Enrollment in the Public Schools of Ohio by Counties. Columbus: The Ohio Citizens Commission For the Public Schools, Inc., August, 1950.

which year he shows an enrollment of six thousand seven hundred and ninety.

Recommended reorganization of administrative units.--Obviously, in the foreseeable future Brown County will not have enough pupils to meet the criteria of Dawson's standard administrative unit, even if all the school districts were reorganized into one administrative unit, nor does it now have enough pupils to meet the standards of his median modification. Within five or six years, however, even if the holding power of the schools should not improve, the enrollment will be high enough to meet the latter standards. And with the improvement in education that is bound to ensue once the administrative and attendance units are reorganized, the holding power of the high schools should increase greatly. This would cause the enrollments to increase more rapidly than is indicated in Tables 7 and 8 of Chapter IV.

There is much evidence that the people of Brown County really want the best educational opportunities possible for their children and youth for the money expended there for public education. Since the entire county is not large enough to become a standard administrative unit, the least that can be done is that all of the present school districts in the county be reorganized into one administrative unit. This approaches the median modification and in five or six years, if not sooner, the county may have enough pupils to meet the standards of this median-type district.

Implementation of the recommended reorganization.--There should be no delay in effecting the recommended reorganization. The first

step required is for the Board of Education of the Georgetown Exempted Village School District to notify the Brown County Board of Education that it wishes to become a local district under county supervision. This should be done between January 1, 1953 and May 1, 1953 in accordance with Ohio General Code #4830-8. The code provides further that should such notification be made, the exempted village school district shall become part of the county school district and subject to the supervision of the county board of education for the school year commencing July first following the date of such notification and thereafter except as provided by law.¹⁰

The second step, the reorganization of all the local districts into one administrative unit, should be accomplished early in July, 1953, in accordance with Ohio General Code #4831-1,¹¹ unless the One Hundredth General Assembly, which convened on January 5, 1953, enacts more satisfactory legislation to accomplish this kind of reorganization.

Reorganization of Attendance Units in Brown County

Criteria for the size of satisfactory attendance units.--The Conference of Deans, after studying a number of reports concerning the size of satisfactory attendance units (defined as the geographical

¹⁰ Ohio General Code #4830-8.

¹¹ Ohio General Code #4831-1.

and population area served by a single school),¹² and after analyzing the present status of attendance units in Ohio, formulated the following basic criteria for minimum standards for the attendance units in Ohio:¹³

1. The minimum enrollment in an elementary school of grades 1-6 shall be 180 with at least one teacher per grade; for an elementary school of grades 1-8, 240 pupils with at least eight teachers.
2. The minimum enrollment for a six-year secondary school shall be 300, with at least twelve teachers. The minimum enrollment for a four-year secondary school shall be 225.
For economical provision of services an enrollment of 5-600 is highly recommended.
3. Exceptions may be made to the above where sparsity of population and difficulties of transportation make impossible the fulfillment of these criteria.

Although in their report they state the basic criteria for the size of a community college attendance area as recommended by The National Commission on School District Reorganization,¹⁴ The Conference of Deans did not include criteria for public education at this level in their recommendations. Since the people of Brown County are planning to provide educational opportunities for persons who have completed grade twelve and ~~for~~ other youth and adults who can profit from such experiences, these criteria are included in the following statement:

¹² The Conference of Deans, op. cit., p. 23.

¹³ Ibid., p. 27.

¹⁴ Ibid., p. 24.

The enrollment in schools which have been organized to provide educational opportunities for persons who have completed grade twelve should not be fewer than two hundred pupils with ten full-time teachers.¹⁵

These criteria for elementary, high school, and community college attendance areas are accepted as the basic criteria for the reorganization of attendance units in Brown County, Ohio.

Present status of attendance units in Brown County.---Attendance units in Brown County are coterminous with the administrative units. There is one attendance unit in the Georgetown Exempted Village School District and fourteen in the Brown County School District, as there are fourteen local school districts under county supervision. The attendance unit coterminous with the Ripley-Union Local School District has three schools, Ripley Elementary, St. Michael Elementary, and Ripley High School. The attendance unit coterminous with the Georgetown Exempted Village School District has two schools, Georgetown Elementary and Georgetown High School, and the attendance unit coterminous with the Fayetteville-Perry Local School District has two schools, St. Martin Elementary and Fayetteville High School. The twelve remaining attendance units have one school each, six having both elementary and high school programs, and six having elementary programs only.

Table 5 in Chapter IV shows the number of teachers in each attendance unit, the highest being twenty-five for the Georgetown

¹⁵ Howard A. Dawson and Floyd W. Reeves, op. cit., p. 131.

schools and the lowest being two for Lewis. Table 6 in Chapter IV shows that enrollments in the fifteen attendance areas ranged in May, 1952, from a low of sixty-four at Lewis to a high of 645 at the two Georgetown Schools, five hundred and five in grades one through eight, and one hundred and forty in grades nine through twelve.

Recommended reorganization of high school attendance units.--

At present all of the nine high schools include grades seven through twelve, while six of the elementary schools include eight grades and ten of the elementary schools include six grades. In addition, there are kindergarten programs at Ripley, Sardinia, and Mt. Orab. The professional leadership of the schools in Brown County with concurrence of officials in the State Department of Public Instruction have decided to organize their schools typically on the kindergarten-eight-four plan with the addition of a two year community college at a future date. Owing to the possibility that there may be certain housing limitations, it is likely that there may be one or more elementary schools which include grades one through six.

There are now one thousand and twenty-five pupils in grades nine through twelve in the nine public high schools in Brown County, Ohio. The largest, Ripley, with an enrollment of one hundred and seventy-seven in these four grades in September, 1952, has forty-eight pupils fewer than the minimum standard for attendance units in Ohio. The enrollments in grades nine through twelve in the remaining eight high schools ranges downward to that of Decatur which has an enrollment of forty-five.

The basic criteria which have been accepted as being applicable to public education in Brown County include the statement that the minimum enrollment for a four-year secondary school shall be two hundred and twenty-five, and that for economical provision of services an enrollment of five to six hundred is highly recommended. There should be no thought on the part of the professional or lay leadership that their goal is merely to attain this minimum standard. Rather, they should think in terms of attaining enrollments large enough that recommended educational services can be provided economically. With the increase in enrollment expected in the high schools, and already present in the elementary schools due to higher birth rates in recent years, and with the anticipated increase in holding power at the high school level, the number of pupils in grades nine through twelve could be almost fifteen hundred within five or six years. On the basis of this anticipated increase, three new high schools should be built for Brown County, with each high school planned for an enrollment of approximately five hundred, assuming approximately equal distribution of the pupils among the three schools.

Certain other factors indicate that it would be wise to plan for three high schools. As pointed out in Chapter III, it is farther between the two most widely separated points in Brown County than it is in any other county in Ohio, the county being much longer than it is wide. This does not mean that one high school for the whole county is an impossibility, but it does indicate that many of the pupils would need to be transported farther in Brown County than in any other Ohio

county. Further, it would create this additional problem. It is being planned that the elementary attendance centers will be transportation depots for high school pupils who will ride express buses to the high school attendance centers. Because of the distances involved from some of the elementary centers to the location of any proposed single high school, this method of transporting high school pupils would not be practical. An alternative would be a dual transportation system, one for the high school and one for the elementary schools. This would be costly and should be avoided. Another geographical factor is the terrain of the county. Along the southern edge of the county near the Ohio River are lowlands which include a number of villages, the major ones being Ripley, Aberdeen, and Higginsport. All along this area rather steep hills rise to a rolling plateau on which the remainder of Brown County lies.

The area along the river forms a natural geographic area, and, therefore, in this respect is well adapted to becoming a high school attendance unit. Most of the pupils in the unit would have the advantage of not being required to ride up and down the hilly roads every school day to a school on the plateau and would have the advantage of riding express buses on U.S. Highway 52, which goes along the Ohio River and through Higginsport, Ripley, and Aberdeen.

In addition to U.S. Highway 52, there are five other major highways in Brown County as illustrated in Figure 2, Chapter III. U. S. 50 runs in a northeast direction through the narrow northern part of the county. It is, therefore, of minor significance in the overall problem of transporting high school pupils for the entire county.

U. S. 68 connects Fayetteville in the north of the county with Ripley in the south, and in doing so runs through Mt. Orab and Georgetown. U. S. 62 runs generally in a north and south direction and connects Ripley in the south with the northeast of the county. As does U. S. 52, two other major highways, Ohio 74 and Ohio 125, cross the county generally in an east and west direction.

In consultation with professional and lay school people in Brown County, it was decided after studying a general highway map of Brown County, that it would be easier to transport high school pupils on the east-west expressways to high schools located on Ohio 74, Ohio 125, and on U. S. 52, than it would be to transport them north and south to any new high schools of satisfactory size regardless of their location. For example, as already noted, Higginsport, Ripley, and Aberdeen are on U. S. 52; Hamersville, Georgetown, Russellville, and Decatur are on Ohio 125; and Mt. Orab and Sardinia are on Ohio 74. Nine schools, including all the major ones, except Fayetteville, are on these east-west highways, and Fayetteville is on U. S. 68, which leads directly south to Mt. Orab, which is on Ohio 74. This leaves transportation routes to be provided for high school pupils from five presently existing elementary attendance units, namely, Eagle, Green-Sterling, Jackson, Lewis, and Scott. The Eagle attendance center is on U. S. 62 about two miles north of Ohio 74; Green-Sterling is on U. S. 68 about four miles north of Mt. Orab, which is on Ohio 74; Jackson is on U. S. 62 about four miles north of Russellville, which is on Ohio 125; Lewis is on Ohio 505 about four miles from Hamersville,

which is on Ohio 125; and Scott is just off U. S. 68 midway between Mt. Orab and Georgetown.

The problem facing us now is where to locate the proposed three new high schools, so that they can be most conveniently reached by the most pupils. The analysis of the highway system in the county indicates that one of the proposed school sites should be on Ohio 74, one on Ohio 125, and one on U. S. 52. The proposed new high school attendance center recommended for location on Ohio 74 will serve, in general, those areas now included in the Fayetteville, Green-Sterling, Mt. Orab, Sardinia, Scott, and Eagle school districts. A school site just east of Mt. Orab would be well located to serve this proposed new attendance unit.

Another of the three proposed high school centers should be located on Ohio 125 approximately equidistant between Hamersville and Decatur. This would place the proposed school in a location east of Georgetown and west of Straight Creek, which would be readily accessible by buses bringing high school pupils from Hamersville, Georgetown, Russellville, Decatur, and Lewis, the present attendance units that in general would be included in this proposed new high school attendance unit.

The third proposed new high school attendance center would serve the southern portion of Brown County and would include, in general, the present Higginsport, Ripley, and Aberdeen attendance units. This proposed center should be located near the eastern edge of Ripley, especially since Aberdeen is farther east of Ripley than Higginsport is west.

The new attendance units will, of course, be flexible so that the board of education of the new administrative unit can, upon recommendation of the superintendent of schools, transfer territory from one attendance unit to another when school population or other factors make such transfer educationally and administratively advisable.

It is not the purpose of this study to recommend exact attendance unit boundaries. They will need to be tentatively determined, however, by the superintendent and his staff prior to the actual reorganization of attendance units, and they will be more definitely determined from experience. An analysis of the enrollments in the areas suggested for inclusion in each of the proposed three high school attendance units discloses that the areas recommended for inclusion in the unit centering near Mt. Orab and the one centering near Georgetown now have approximately three hundred and eighty pupils each enrolled in grades nine through twelve, while the area suggested as a new attendance unit in southern Brown County has an enrollment of only about two hundred and sixty in those grades. This enrollment, however, is considerably above the minimum recommended by the Conference of Deans and will undoubtedly increase to over three hundred very soon, due to the increasing enrollments in the elementary grades and due to expected increase in the holding power of the reorganized high schools.

Recommended reorganization of elementary school attendance units.--It is recommended that all of the present elementary attendance units, except one, be retained. The enrollment at Lewis is so small, only fifty-three in the six grades there in September, 1952, and the area is so close to the Hamersville school, that this unit should be

added to the Hamersville attendance unit, which will have sufficient schoolhousing for all the elementary pupils in the new unit once the high schools are established. There are other elementary school centers which do not meet the minimum enrollment requirements, but they are not situated near other centers which have space available for these additional pupils. Further, it is recognized that local communities have considerable pride in their schools, which often are community centers. This recommendation is a compromise between the standards accepted for elementary attendance units and the desire of the people to have schools in their local communities. It is, therefore, proposed that there be fourteen elementary school attendance centers located as follows: Aberdeen, Decatur, Eagle (Fincastle), Fayetteville, Georgetown, Green-Sterling (Greenbush), Hamersville, Higginsport, Jackson (Ash Ridge), Mt. Orab, Ripley, Russellville, Sardinia, and Scott (New Hope).

This minor change of the attendance units can be effected by resolution of the board of education upon recommendation of the superintendent of schools. The attendance unit boundaries will be flexible, so that the board of education can alter them at any time that educational or administrative needs indicate that such changes would be advantageous.

Reorganization for a community college attendance unit.--The community college attendance unit will be coterminous with the administrative unit and will likely have its attendance center in the new high school near Georgetown. It is anticipated that for a number of

years the community college program will operate part-time during evenings and Saturdays and will, in fact, be an extension program of an accredited four-year college.

Recommended Schoolhousing

Secondary schools--Three new high school buildings should be constructed on adequate sites soon after the recommended reorganization of administrative and attendance units has been consummated. The sites of the three new high schools proposed earlier in this chapter should be located east of Mt. Orab on Ohio 74, east of Georgetown on Ohio 125, and east of Ripley on U. S. 52. All of the sites should be near enough to the respective villages so that the new schools may be supplied by the already-existing water supply systems, yet they should be far enough from the villages so that at reasonable cost they may be adequate in size. Sites ranging from fifty to one hundred acres are recommended. This latter recommendation is in accord with the planning that has been done by both professional and lay people in Brown County. Since it has been pointed out that in five or six years the enrollment in the four grades nine through twelve probably will be fifteen hundred, and since it is estimated that the high school attendance units will have approximately the same number of pupils, each of the schoolhouses in Brown County should be planned to provide facilities for a comprehensive educational program for about five hundred pupils.

It is expected that most of the present programs of education will be retained and that other programs will be added. The additional

ones to be planned for immediately in the construction of the new high schools are vocational agriculture, diversified occupations, and distributive education. Limited programs of vocational home economics and business education are already provided, and facilities for their expansion will be required in the new schools. More effective programs are being planned, also, in vocal and instrumental music, dramatics, physical and health education, and sports. To implement these programs each high school will need a vocational agriculture shop, classroom, office, and auxiliary facilities; a home economics suite; a business education department; classrooms for diversified occupations and distributive education; other general-purpose and special classrooms; an auditorium; a gymnasium; and athletic fields, all with auxiliary equipment and facilities. A food service department will be required, too, for the preparation and serving of food to the pupils and staff.

It is not the purpose of this study to provide the details for the construction of the new high schools. These details should be worked out by committees of lay and professional people appointed by the superintendent of the reorganized administrative unit. The details should be presented to the board of education for consideration and disposition, and for use by the architects in planning the preliminary and working drawings. The committees providing the details should be consulted by the board of education before it approves either the preliminary or final drawings. These committees will find it helpful to consult this study, especially Chapters VI through X, and Appendices A through G, to enable them to come to decisions that will result in

educationally adequate schoolhouses.

Elementary schools.--It has been recommended that one elementary attendance unit in Brown County, namely, Lewis, be dissolved, leaving fourteen elementary attendance units. This does not mean, however, that all of the remaining elementary schools should be continued in use. Once the three new high schools have been occupied, space now used by high school pupils will be available for elementary pupils. At that time, five elementary buildings now in use should be abandoned. These are: Georgetown Elementary, Lewis, Ripley Elementary, St. Martin, and St. Michael. It is significant that by carrying out this recommendation the four schools that ranked the lowest in the evaluation of the educational adequacy of existing school buildings will be abandoned. Of the nineteen buildings whose evaluations comprise Chapters VI through X of this study, the St. Martin School ranked sixteenth, Lewis seventeenth, Georgetown Elementary eighteenth, and St. Michael nineteenth. Ripley Elementary ranked eighth, but should be abandoned because of site limitations, as well as for other inadequacies disclosed in its evaluation.

It is recommended that elementary pupils from the Lewis area attend the Hamersville school as soon as the high school pupils from that area are attending a new high school; that the elementary pupils in the Georgetown area use the present high school building; that the elementary pupils in the Fayetteville area use the present Fayetteville high school building; and that all elementary pupils in the Ripley area

use the present Ripley high school building. It is significant that this arrangement will enable those pupils who otherwise would be attending school in the poorest buildings to attend in the four buildings that ranked the highest in the evaluation of the educational adequacy of the public school buildings in Brown County according to this study. The present Ripley high school building ranked first, Hamersville second, Georgetown high school building third, and the Fayetteville high school building fourth.

Before carrying out these recommendations, the superintendent of schools will need current pupil population data, so that attendance areas can be defined in a way that optimum utilization of all elementary schoolhousing can be achieved. It is recognized, too, that even with the best of planning it may be necessary to build additions to one or more of the elementary schoolhouses at an early date, even while the three new high schools are being constructed.

The existing schoolhouses that are recommended to be continued in use as elementary schools have many deficiencies which are detailed in Chapters VI through X of this study. The school authorities in Brown County are continuously correcting many of these shortcomings and are planning to speed up their rehabilitative efforts, most of the funds for which are provided by the State of Ohio by authority of Section 4848-11, General Code of Ohio.¹⁶

¹⁶ Ohio General Code #4848-11.

Financing the Proposed Schoolhousing

It was pointed out earlier in this chapter that most of the financial obligation for providing the proposed schoolhousing will rest with the people of Brown County, and that supplementary funds will be available from at least one other source, the State of Ohio. Chapter IV disclosed that the assessed valuation of property in all of the school districts in Brown County was revised upward to \$27,269,398.00 for 1953. Under provisions of Ohio General Code #2293-15 as amended,¹⁷ a school administrative unit can bond itself to the extent of eight percent of its total evaluation, providing it has the approval of the State Department of Education. The proposed administrative unit for Brown County could be bonded for a total of \$2,181,551.84 for school purposes. It was pointed out in Chapter IV, also, that the current bonded indebtedness of the existing school districts is about \$150,000.00. Therefore, over \$2,000,000.00 could be raised within the county, and the remaining funds required to build the proposed schoolhousing finally agreed upon would obviously need to come from outside the county. It is likely that the only other source available will be the State of Ohio which will have available funds appropriated by the General Assembly. The board of education and the superintendent of schools will need to keep informed on how to avail themselves of these funds through the State Department of Education.

¹⁷ Ohio General Code #2293-15.

Pupil Transportation

Chapter IV disclosed that pupil transportation in Brown County is administered and operated within each of the fifteen school districts, and that, if it were conceived and operated as a whole within the county, savings of from twenty-five to thirty percent might be effected. At the same time, better service could be given to the pupils because of increased flexibility of routing. Efficient and flexible pupil transportation is not feasible under the present plan of school district organization. Once the school system is reorganized into one administrative unit, pupil transportation will be administered from the office of the superintendent and will, therefore, be operated as one flexible system with its chief purpose being to give excellent service to those pupils who are to be transported to and from school.

The transportation program will be more complicated when the three new high schools are ready for occupancy. With careful planning, however, there should be no serious problems. Both elementary and high school pupils will ride the same buses to the elementary schools each school-day morning. The high school pupils will then ride express buses to the appropriate high school. In the afternoon, express buses will return the high school pupils to the elementary schools, where they and the elementary pupils will board their respective buses for the return trip to their homes.

These two questions are especially pertinent to this discussion of pupil transportation: (1) What is the maximum distance that pupils should be required to walk to attend school? (2) What is the maximum

time that pupils should be required to ride to attend school? One reference¹⁸ states that elementary pupils should not have to walk more than one and one-half or two miles to or from school, or ride on a school bus more than an hour each morning or evening. It states that high school pupils should not be required to walk more than two or two and one-half miles to or from school, or ride on a school bus more than one and one-half hours each morning or evening. Another current reference¹⁹ gives the following maximum limitations which are considered reasonable for normal circumstances, when traffic hazards, population density, or road conditions do not dictate modifications. The maximum walking distance for elementary pupils each way should be three-quarters of a mile, for junior high pupils one and one-half miles, for senior high pupils two miles. The maximum travel time one way should be thirty minutes for elementary pupils and one hour for secondary pupils.

Various authorities state differing distance and time limits for pupil travel to and from school. It is believed, however, that school officials in Brown County will keep the principle of service to the pupils uppermost in their minds when they plan the reorganized transportation program. If they will do this, pupil transportation

¹⁸ Howard A. Dawson and Floyd W. Reeves, Your School District, p. 80. Washington: National Education Association, 1948. Pp. 5 / 286.

¹⁹ American Association of School Administrators, American School Buildings, p. 43. Washington: The Association, 1949. Pp. 4 / 525.

problems will be kept to a minimum.

Lay Advisory Committee

On July 19, 1952, the Brown County Board of Education appointed a lay advisory committee with a member representing each local school district, the Georgetown Exempted Village School District, and the Brown County Board of Education. The County Superintendent of Schools was named the executive secretary of the committee.

The committee has been holding meetings to discuss educational problems, particularly school district reorganization, attendance unit reorganization, and schoolhousing. Various portions of this study have been presented to the committee, both orally and in mimeographed form. During the meeting held on February 3, 1953, the committee voted in favor of county-wide reorganization and in favor of three high schools for the county. It has notified the Brown County Board of Education of this action.

The people of Brown County have been continuously informed of the activities of the committee through the local newspapers there, and by news items appearing in the Ohio Valley sections of the Cincinnati newspapers.

It is recommended that the lay advisory committee be retained as a permanent organization and that it continue to represent all sections of the county. It is recommended, too, that the committee should be representative of the people of the county, and that each organized group should be invited to designate a delegate to serve on the committee.

Further, it is recommended that the lay advisory committee affiliate with the National Citizens Commission for the Public Schools, 2 West 45th Street, New York 36, N. Y. It will then have available current literature, ideas, and advice from the top-level lay advisory group to public education in the United States.

Steps in Implementing the Proposed Schoolhousing

Building schoolhouses is a complicated undertaking that must be administered by competent lay and professional people who, in addition, are willing to seek the best advice. The exact steps that the board of education, the superintendent of schools, and the citizens of Brown County may go through to build their new schools can not be determined now. They vary according to circumstances. However, it was felt that a list of the usual major steps in building schools should be stated here for the convenience of those concerned. The list, which follows, is adapted from one prepared by the American Association of School Administrators:²⁰

1. Schoolhousing needs become felt
2. Educational consultant appointed
3. Survey made to determine needs more exactly
4. Planning committees of staff members set up
5. Architect or architects appointed
6. Financial program determined
7. Bond attorneys selected
8. Bond issue, if necessary, prepared and submitted to voters
9. Credit data on school district made available to prospective bond purchasers
10. Types of furniture and equipment determined

²⁰ American Association of School Administrators, American School Buildings, p. 321. Washington: The Association, 1949. Pp. 4 / 525.

11. Educational specifications submitted to architect
12. Preliminary drawings prepared by architect after necessary give-and-take conferences with the school staff
13. Preliminary drawings approved by board of education
14. Final drawings and specifications prepared
15. Final drawings and specifications checked and approved
16. Bids called for on construction and equipment
17. The low or preferred bid accepted when proper performance bond has been supplied
18. Contract documents legally approved
19. Contract documents, including agreement on payment schedule, executed
20. Supplementary supervision of construction provided by owner
21. Construction started
22. Contract awarded for furniture and equipment not covered by general contract
23. Progress reported at successive stages--foundations, first floor, building enclosed, building completed
24. Construction inspected
25. Building accepted
26. Contract completed
27. Building equipped with furniture, apparatus, and machines
28. Building occupied

Summary

The recommendations set forth in this chapter are concerned chiefly with procedures preliminary to construction of new schoolhousing and the rehabilitation of existing schoolhousing, namely, the reorganization of the present administrative and attendance units. Other related issues are considered, also.

Criteria for the size of satisfactory administrative units are compared with the existing situation in Brown County, which has sixteen boards of education. It is apparent from an analysis of the criteria and from a comparison of them with the situation in Brown County that the only satisfactory solution is that all the school districts be reorganized into one administrative unit. The legal provisions for effecting this

reorganization are stated, also.

Criteria for the size of satisfactory attendance units are compared with the status of attendance units in Brown County. The recommendations for reorganization are presented in two parts, secondary and elementary. It is recommended that the nine high school attendance units be reorganized into three, and that one elementary attendance unit namely, Lewis, be dissolved, leaving fourteen.

Three new comprehensive high schools will need to be provided, one for each of the new high school attendance units. Each new high school should be planned for an enrollment of five hundred pupils, since it is expected that there will be about fifteen hundred pupils in grades nine through twelve in Brown County within five or six years. It is recommended that these schools be located on sites of from fifty to one hundred acres, one to be east of Mt. Orab, another one east of Georgetown, and the remaining one east of Ripley. These new schools should be close enough to the respective villages so that they can use their water supply systems.

As soon as the high school pupils have occupied the new high schools, five existing elementary schools, namely, Georgetown Elementary, Lewis, Ripley Elementary, St. Martin, and St. Michael should be abandoned. Pupils who would normally attend these schools will attend the high schools no longer needed for high school pupils. It is recommended, too, that the school authorities speed up their rehabilitation program, especially in those buildings that are to be continued in use.

Most of the money needed to build the new schools will be

obtained by the electorate of Brown County voting a bond issue equal to eight percent of the assessed valuation of the reorganized school district. This will produce over \$2,000,000.00. The remaining money will need to be obtained from the State of Ohio through the State Department of Education.

All high school pupils, except those living near the new schools, will use elementary schools as transportation depots. They will ride express buses to and from the new high schools, but will go between the elementary schools and their homes in the same way as elementary pupils, by bus or on foot.

Now that a lay advisory committee is functioning so well, it is recommended that it be retained permanently, and that it affiliate immediately with the National Citizens Commission for the Public Schools, which has its central offices in New York City.

The exact steps that a school system may go through to build its new schools can not be determined precisely in advance. However, a list of the usual major steps is presented for the convenience of those concerned.

CHAPTER XIII

SUMMARY

Statement of the Problem

Purpose of the study.--The purpose of the study was to develop a proposal for a public schoolhousing program for Brown County, Ohio. It is to be used by both professional and lay individuals and groups in determining how to meet more adequately the educational needs of that community.

Need for the study.--Educational planning, including schoolhouse planning, should be a continuous process. The school authorities in Brown County had become aware of this, but since in the past there had been no integrated schoolhouse planning for the whole county, a need was felt for a study of schoolhousing problems to be used as a basis for future planning. Further, they were anxious to be prepared to meet successfully impending legislative changes. Having no schoolhousing specialist in their school system, they were eager to have this study made. Both professional and lay persons and groups co-operated in many ways to help make it a success.

Nature of the study.--The appraisal-survey technique was employed in developing the study. All existing public schoolhousing in Brown County was evaluated by using a guide which was selected for that purpose. Recommendations were made for improving schoolhousing in Brown County, based, in part, on the appraisal of the existing schools.

Delimitation of the study.--The study was limited to the development of a proposal for a public schoolhousing program for Brown

County, Ohio. It was concerned chiefly with the evaluation of existing schoolhousing and with recommendations for more adequate schools.

Related studies.--Five studies were found to be more related to this study than the others considered. One of these is a study of the public schools of Brown County; two are concerned with public schoolhousing and school district reorganization in the State of Ohio; and the remaining two deal with these and related problems in the United States.

The study of the Brown County schools, published in 1937, was made by the Ohio State Department of Education in co-operation with the United States Office of Education. It proposed that the Georgetown Exempted Village School District remain as it is now, and that the then fifteen local school districts under the supervision of the Brown County Board of Education be reorganized into six districts. This made a recommended total of seven administrative units, each to offer a twelve-year program of education.

In 1949, Martin H. Bartels completed a survey of the immediate public schoolhousing needs in Ohio. His investigation disclosed that reorganization of school districts in Ohio is the best solution to the problem of obtaining most of the funds needed to finance the immediate public schoolhousing needs.

The other related Ohio study was prepared by the Center for Educational Service of Ohio University for the Conference of Deans of Education of the five Ohio state universities. It contains criteria for the size of satisfactory administrative units and for the size of

satisfactory attendance units.

The two national studies published by the National Education Association and the Council of State Governments present schoolhousing, reorganization, and other educational problems in the forty-eight states.

Procedure of Investigation

Preliminary negotiations.--In June, 1949, a conference was held with the superintendent of the Brown County Schools, and in October with the superintendent of the Georgetown Exempted Village Schools to discuss with them their willingness to participate in a study of the schoolhousing needs of the county. Both superintendents expressed enthusiasm for the proposed study, not only because of possible local outcomes, but because of state-wide implications, also. The boards of education acted favorably upon the suggestions of the superintendents that co-operation be given to the study.

Conferences and correspondence.--A number of state and national authorities contributed to the study through conferences or correspondence. The state authorities were: Martin H. Bartels, former Director of Curriculum Development of the Cincinnati Public Schools; John H. Herrick, Director of the Survey Division, College of Education, The Ohio State University; Arthur J. Klein, Executive Secretary of the Ohio Citizens Commission for the Public Schools until it was dissolved; T. G. O'Keefe, Director of Research of the Ohio Education Association; Robert L. Rohe, Director of School Finance for the State Department of Education; Ralph A. Howard, Director of Vocational Education for the State Department of

Education; and R. M. Eyman, Assistant Superintendent of Public Instruction for the State of Ohio.

The national authorities were: T. C. Holy, Chairman of the Schoolhousing Committee of the American Council of Education and former Director of the Bureau of Educational Research, College of Education, The Ohio State University; Frank W. Hart, Professor of Education, Emeritus, University of California at Berkeley; Ray L. Hamon, Chief of the Schoolhousing Section, United States Office of Education; Howard A. Dawson, Executive Secretary, Department of Rural Education, National Education Association; and Edgar Fuller, Executive Secretary of the National Council of Chief State School Officers.

Description of the educational setting.--A background of information about Brown County was obtained through personal interviews and observation, as well as by using a number of published sources.

Organization and administration of the schools.--Visitations were made in each school, and reports of the superintendents and principals, as well as sources containing laws pertaining to school district organization in Ohio, were studied to obtain information about the organization and administration of the public schools in Brown County.

Projection of the educational program.--Classes were visited and the programs of studies and co-curricular activities for each school were studied so that the status of the educational program could be obtained. Conferences were held with the superintendents, principals, teachers, pupils, and laymen in the communities to discuss with them proposals for improving the educational program.

Prediction of school enrollments.--Enrollments were predicted by grade for the county as a whole through the school year 1957-58. The method employed was developed and is used currently by the Bureau of Educational Research of The Ohio State University.

Selection of a guide.--A number of guides for evaluating school buildings were studied. The one selected and used in the evaluation of the educational adequacy of existing schoolhousing in Brown County was prepared under the authorship of Ralph D. McLeary and was sponsored by the New England School Development Council.

Recommendations.--The recommendations were arrived at after analyzing the results of the foregoing procedures, and after studying criteria for the size of satisfactory administrative units, criteria for the size of satisfactory attendance units, and the ability of Brown County to finance schoolhouse construction.

Educational Setting

Brown County was carved out of territory that was once part of Adams, Clermont, and Highland Counties by an act of the Ohio General Assembly in 1817. It was named in honor of General Jacob Brown who had distinguished himself in the War of 1812.

The area of the county is four hundred and ninety-five square miles. Its climate is favorable to agriculture, which is the chief industry there. The topography varies from hilly areas in the south near the Ohio River to large tracts of level to rolling land throughout most of the remainder of the county. There are sixteen townships and a number of villages, the largest village being Georgetown, the county

seat, which had a population of two thousand two hundred in 1950. The population of the whole county in 1950 was twenty two thousand two hundred and twenty-one according to the 1950 U. S. Census. Transportation facilities include United States highways, Ohio State highways, county and township roads, a railroad, the Ohio River, and airways.

Exact information regarding the earliest attempts at education in Brown County is not available. It is generally agreed, however, that the first school was a cabin constructed for this purpose in Lewis Township in 1802. Since that first school, many others, mostly one room, have come and gone. Today there are nineteen schools, none of them being a one-room school.

Organization and Administration of the Schools

The school system in Brown County is comprised of the Brown County School District and the Georgetown Exempted Village School District, each with a board of education. The county district is subdivided further into fourteen local school districts, each with a board of education.

All of the nine high schools have six grades, as do twelve of the elementary schools. Four elementary schools have eight grades. In May, 1952, the total enrollment of these schools was four thousand four hundred and sixty-one.

Pupil transportation is administered and operated within each of the school districts. If it were operated as a whole for the entire county, savings of about twenty-five percent might be effected. All of the buses are owned by the boards of education.

The total current cost of operating the schools in Brown County for the school year 1951-52 was \$897,961.52. Other expenditures were: capital outlay, \$72,827.17; debt retirement, \$42,868.00; and interest, \$8,672.49. The total bonded indebtedness of all the public schools in the county for that year was \$151,830.00.

The Educational Program

There are developments toward improving elementary education in Brown County. Workshops are held from time to time, and a supervisor has been employed to give leadership to all the elementary teachers in the schools under the supervision of the county board of education. To help implement programs that will further this improvement, larger classrooms should be provided, in several cases the number of pupils assigned to a teacher should be reduced, and all of the elementary schools should be large enough to have at least one teacher for each grade.

The programs at the secondary level continue, in most cases, to be subject-matter centered and rather limited in scope. There is no program of vocational agriculture for the in-school youth, although the county is predominantly rural. All of the nine high schools do, however, offer training in industrial arts education and certain secretarial and business subjects.

The program of adult education is chiefly for veterans of World War II who receive "on-the-farm" training under provisions of the Veterans' Administration. A small number of out-of-school women participate in the vocational home economics program at Ripley.

Professional and lay leaders are planning ahead for the improvement of education in Brown County. They feel that within a few years almost all of the elementary schools will have been extended downward to include kindergarten, and that all of them will include the seventh and eighth grades with programs in industrial arts, home economics, and agriculture. At the secondary level they hope to offer in the near future programs in vocational agriculture, vocational home economics, diversified occupations, and business education.

Evaluation of Existing Schoolhousing

All of the existing public schoolhouses in Brown County were evaluated by using the "Guide for Evaluating School Plants" developed by Ralph D. McLeary under the sponsorship of the New England School Development Council. The recommendations of this study were based, in part, on the findings of those evaluations, which are included under five major categories: sites, building design and structure, service systems, classrooms, and special rooms. The evaluations based upon the findings range from excellent to thoroughly unsuitable.

None of the nineteen school sites was evaluated as excellent, and only one, that of Green-Sterling, was rated satisfactory. The remaining eighteen sites were evaluated from sub-satisfactory to obsolete on the scale provided in the guide.

The Fayetteville high school building received the highest evaluation in the category of building design and structure. This was an evaluation of satisfactory. Evaluations for the remaining schools ranged from sub-satisfactory to obsolete in this category.

In the service systems category, the highest evaluation attained was borderline by the Hamersville school and Ripley High School. The evaluations for the remaining schools ranged downward to thoroughly unsuitable.

The highest evaluation of classrooms was borderline, also, and five schools, Hamersville, Ripley High, Aberdeen, Fayetteville, and Georgetown High, received this rating. The remaining evaluations ranged downward to obsolete.

The highest evaluation of special rooms was received by the Georgetown High School, which was only very poor. The remaining evaluations ranged downward to thoroughly unsuitable.

A more detailed summary of the evaluations in each of the major categories follows:

Sites.--In regard to accessibility, all but two of the school sites were evaluated as excellent or satisfactory, the exceptions being those of Lewis and St. Michael. The site of the Lewis school was rated sub-satisfactory owing to the obvious overlapping of natural attendance areas, while the St. Michael site was rated generally poor because of its location at the upper end of a very steep hill.

The rating of the environment of most of the schools was excellent or satisfactory. Three schools, however, rated low, Aberdeen and Ripley Elementary, because of their proximity to business areas, and St. Michael because of the presence nearby of poorly-kept residences.

None of the sites is large enough for an adequate program of playground and athletic activities. Considering size alone, the three

best sites are those of Green-Sterling, Mt. Orab, and Ripley High.

With respect to improvements, arrangements, and landscaping, all of the sites have been neglected. Fifteen of the schools were given full penalty in the rating for this item, while Fayetteville, Green-Sterling, Jackson, and Ripley High were allotted partial credit, but not enough to place them above the "very poor" rating.

Building design and structure.--In the category of placement, the highest score of any of the buildings was that arrived at in the evaluation of the Jackson school. This score was only five out of a possible ten, which was interpreted as borderline. The next highest score was four, interpreted as generally poor, a rating allotted to four schools. The remaining evaluations ranged downward to thoroughly unsuitable.

The Green-Sterling building was rated the highest in the category of educational plan and utilization with a score of twelve out of a possible twenty. Even this score was interpreted as sub-satisfactory. The next highest rating was for Ripley High School with a score of eight, interpreted as generally poor. Fayetteville High School followed with a score of four, which was interpreted to be inadequate. Two buildings, those of Jackson and Scott, had a score of two, or obsolete, while the remainder had no credit and were rated as thoroughly unsuitable.

In the evaluation of the type of construction and materials of the buildings, Aberdeen, Fayetteville, Hamersville, Jackson, and Ripley High were rated as excellent; Georgetown High was rated satisfactory, Green-Sterling sub-satisfactory, Decatur generally poor, Scott very poor,

and all the rest were rated thoroughly unsuitable. Concerning the form and architecture of the buildings, the ratings ranged from generally poor downward, Fayetteville, Hamersville, Jackson, Ripley High, and Scott having the "generally poor" evaluation.

The foundations of most of the school buildings were found to be in excellent condition. Consequently, they were evaluated accordingly. Only three schools did not receive the rating of excellent, Decatur's evaluation for this item being sub-satisfactory, and that of Green-Sterling and Scott being thoroughly unsuitable. In regard to height, twelve schools were evaluated as excellent. The other seven had lower ratings because their height is too great for their non-fire-resistive construction.

Fayetteville was the only school to be allotted the score of seven, interpreted as excellent, for its walls and floors. Aberdeen was second, with a score of six, interpreted as satisfactory. Decatur and Jackson followed with a score of five, which was interpreted to be satisfactory, also. The walls and floors of the Green-Sterling school were next with an evaluation of borderline. The remaining schools were evaluated from generally poor to thoroughly unsuitable in this item, seven of them having no credit allotted to them.

Only two schools were penalized because of the condition of their roofs, all of the others being evaluated as excellent. The roof of the Green-Sterling school was evaluated as sub-satisfactory, while the roof of the Ripley Elementary building was considered to be obsolete.

No deductions were made for the entrances and exits of seven

schools. One was allotted a score of five, or sub-satisfactory; three received a score of four or borderline; and the remaining schools were evaluated as inadequate, obsolete, or thoroughly unsuitable in this item.

The condition and appearance of six schools, Aberdeen, Decatur, Georgetown High, Hamersville, Jackson, and Ripley High, were excellent, the remaining schools being either obsolete or thoroughly unsuitable in these respects. In no instance were acoustical treatment and fenestration found to be satisfactory in any of the public school buildings in Brown County, virtually all of the evaluations being either obsolete or thoroughly unsuitable.

Included in the general category of internal structure are stairways, corridors, basements, and attics. The Aberdeen, Fayetteville, Jackson, and Scott buildings were not penalized in the stairway item. Ripley High was next best with an evaluation of satisfactory; then Hamersville and Sardinia followed with an evaluation of sub-satisfactory; Decatur, Georgetown High, Lewis, and Ripley Elementary were allotted a score of ten, or generally poor, in the stairways item, while the remaining schools ranged from inadequate to thoroughly unsuitable. Only two schools, Fayetteville and Jackson, were allotted the highest score for their corridors. The next highest score, eleven out of a possible twenty, or borderline, was allotted to the Georgetown High, Hamersville, and Lewis buildings. Evaluations of the remaining schools in this item ranged from generally poor to thoroughly unsuitable. Two schools, Hamersville and Russellville, were not penalized for their basements.

The next highest evaluation, however, was sub-satisfactory, the rating allotted to Higginsport, Ripley High, and St. Martin. Evaluations of the basements of the remaining schools ranged from generally poor to thoroughly unsuitable, ten of these schools being evaluated at the lowest level. None of the schools was given a penalty because of the use or condition of attic space.

Service systems.-- In the category of heating and ventilation, the Hamersville building had the highest score, forty-five out of a possible seventy-five. The interpretation of this score was sub-satisfactory. The Ripley High building was second with a score of thirty-five, which was interpreted to be generally poor. Three schools, Aberdeen, Georgetown High, and Ripley Elementary, had a score of twenty-five or very poor; Jackson a score of fifteen, or inadequate; Higginsport five, or thoroughly unsuitable; and all the rest had no credit, which was interpreted as thoroughly unsuitable, also.

All but three schools had no credit for artificial lighting. Sardinia had full credit of twenty points, or excellent, since well-planned fluorescent lighting has been installed recently; both Russellville and Hamersville had a score of twelve, or sub-satisfactory, since, although the light fixtures are fluorescent, they are not as adequate or modern as those at Sardinia.

The Ripley High building had a score of twenty-six, or satisfactory, for water service. Seven additional schools had scores which were interpreted as satisfactory. Evaluations of the water service of the remaining schools ranged downward to generally poor.

The Ripley high school building was highest in the category of toilets and sewers with a score of twenty-eight or satisfactory. The Georgetown high school building followed with a score of twenty-four, which was interpreted as sub-satisfactory. Higginsport was next with a score of nine or inadequate. The toilet and sewer systems of the remaining schools were rated as obsolete or thoroughly unsuitable.

Only one school, Hamersville, was evaluated as satisfactory in regard to fire protection. Aberdeen, Decatur, Georgetown High, and Scott were rated generally poor, and the remaining eleven schools were rated thoroughly unsuitable.

The electrical systems of five schools were rated satisfactory. These were Georgetown High, Hamersville, Higginsport, St. Martin, and St. Michael. The sub-satisfactory evaluation was allotted to five schools, also, namely, Aberdeen, Decatur, Fayetteville, Mt. Orab, and Sardinia. Six of the remaining nine schools had scores that placed them in the generally poor evaluation, while three were rated inadequate.

Classrooms.--- The highest possible score for the size and number of classrooms is thirty-five. The highest score allotted to a school in Brown County, however, was twenty-three for Ripley Elementary, and this score was interpreted as sub-satisfactory. Fayetteville and Ripley High each had a score of seventeen, or borderline, while Eagle and Georgetown High each had a score of eleven, or very poor. The remaining schools had no credit and were thoroughly unsuitable in regard to size and number of classrooms.

In the item of classroom shape, six schools had a score of twelve out of a possible twenty, or sub-satisfactory, and nine had a

score of eight or generally poor. Evaluations of the remaining four schools were either obsolete or thoroughly unsuitable.

Natural lighting was found to be below minimum standards in all of the schools. The highest score was twenty-two out of a possible forty, or borderline, for Scott. Decatur and Ripley High had a score of eighteen, or generally poor, while Jackson and Russellville had sixteen, which was interpreted as generally poor, also. The remaining evaluations ranged downward to inadequate.

The highest possible score for floors is fifteen, and two schools, Fayetteville and Hamersville, attained this score. The next highest score was twelve, or satisfactory, for Aberdeen and Decatur, while Georgetown High and Green-Sterling had scores of nine, or sub-satisfactory. Higginsport, Mt. Orab, Ripley High, and Scott had scores of six or generally poor, and the remaining schools were allotted scores which were interpreted as inadequate, obsolete, or thoroughly unsuitable.

Ten schools received the maximum score of fifteen, or excellent, in the walls and ceiling item. One school received a score of twelve, or satisfactory; four had a score of six, or generally poor; and three had a score of three, or inadequate.

Seven schools received a score of ten, or excellent, for their doors, and one received a score of eight, or satisfactory. The remaining schools had scores which were interpreted as sub-satisfactory or generally poor.

In the color scheme item, ten of the nineteen schools received

a score of ten, or excellent. The next highest score allotted was six, or sub-satisfactory, for three schools, Decatur, Eagle, and Lewis. The color schemes of the remaining schools were so deficient that they were rated either generally poor or inadequate.

The chalkboards of all the schools are black, a color no longer considered satisfactory in classrooms. The scores vary slightly from school to school, however, because of chalkboard areas. The highest score was seven, or generally poor, allotted to three schools, namely, Aberdeen, Georgetown Elementary, and Hamersville. The next highest score was five, or very poor, for one school, Ripley High. The remaining evaluations ranged from inadequate to thoroughly unsuitable, ten of them being the lowest possible score.

The classrooms were not so deficient in the tackboard evaluation, four schools, namely, Aberdeen, Georgetown Elementary, Georgetown High, and Hamersville receiving a score of twenty, or excellent. Ripley High was next with a score of sixteen, or satisfactory. Following were the Fayetteville, Jackson, and Lewis buildings with a score of twelve, or sub-satisfactory. Evaluations for the remaining schools ranged from generally poor to inadequate.

In the closets and cases item, four schools had a score of twenty, or excellent, and five schools received a score of twelve, or sub-satisfactory, while the remaining schools were evaluated from generally poor to thoroughly unsuitable in this item.

In the cloakroom and locker item, seven schools received the excellent rating, while five of them were rated satisfactory, the remaining evaluations ranging downward to thoroughly unsuitable.

Concerning type of equipment, the highest score was fifteen out of a possible twenty-five. This score, interpreted as sub-satisfactory, was allotted to the Aberdeen, Decatur, and Scott buildings. The next highest score allotted was ten, or generally poor, for the Fayetteville, Georgetown High, and Ripley Elementary buildings. Twelve of the remaining thirteen schools had a score of five or inadequate, while the other, namely, Jackson, received no credit and was rated thoroughly unsuitable in this item.

One school, Hamersville, received an evaluation of excellent for its shop. The next highest was a score of twelve out of a possible twenty, or sub-satisfactory, for Aberdeen. Georgetown High and Ripley High each received a score of eight, or generally poor, while Higginsport had a score of four, or inadequate. The remaining schools were allotted no credit and were rated thoroughly unsuitable.

Concerning science and home economics laboratories, Hamersville ranked highest with an evaluation of excellent. Ripley High was next with a score of twelve out of a possible twenty, or sub-satisfactory. Georgetown High had a score of eight, or generally poor, while the remaining schools received no credit and were rated thoroughly unsuitable.

In the item called other special rooms, the Georgetown high school building received an evaluation of excellent; Hamersville, sub-satisfactory; Ripley High, generally poor; and Fayetteville, inadequate. The remaining schools were allotted no credit for this item.

Special rooms.--- The highest score allotted to any of the

schools in the gymnasium item was eighteen out of a possible thirty for the gymnasium suite in the Aberdeen building. Even this score was interpreted as sub-satisfactory. Sardinia was second high in this item with a score of fifteen, and Ripley High was third with a score of fourteen. These two scores were interpreted as borderline. Georgetown High was next with a score of twelve or generally poor. The remaining fifteen schools had scores of zero, interpreted as thoroughly unsuitable.

In the library suite item only three schools received any credit. These were Fayetteville, Georgetown High, and Ripley High, all with a score of six out of a possible twenty, which was interpreted as very poor.

In the auditorium item two schools received some credit, Georgetown High a score of eight out of a possible twenty, interpreted as generally poor, and Ripley High a score of two, interpreted as obsolete.

In the custodians' rooms item, the Georgetown high school building and the Hamersville building each had a score of six out of a possible ten. This score was interpreted as sub-satisfactory. The Green-Sterling building was next with a score of four or generally poor, while Fayetteville and Ripley High each had a score of three or very poor. Evaluations of the remaining schools were either obsolete or thoroughly unsuitable.

The Hamersville building was allotted a score of ten or excellent for its storage rooms, Fayetteville and Jackson each a score of six or sub-satisfactory, Higginsport and Ripley High each a score

of four or generally poor, while the remaining schools received evaluations ranging downward to thoroughly unsuitable.

For the cafeteria item the Eagle building received the highest score of the nineteen schools, six out of a possible ten, or sub-satisfactory. Two schools, Higginsport and Scott had a score of four or generally poor, and four schools, Aberdeen, Fayetteville, Hamersville, and Jackson had a score of two or inadequate. The remaining schools had no score; therefore, they were considered thoroughly unsuitable in this item.

Three schools received full or partial credit for their teachers' rooms. Green-Sterling had a score of two or inadequate, St. Martin a score of six or sub-satisfactory, and St. Michael a score of ten or excellent.

The principal's office of the Georgetown High School had the highest rating, twenty-two out of a possible thirty or satisfactory. Aberdeen followed with a score of fourteen or generally poor. Three schools, Fayetteville, Mt. Orab, and St. Martin, had a score of ten or very poor, and three schools, Hamersville, Higginsport, and Ripley High, had a score of six or inadequate. Green-Sterling and Ripley Elementary each received a score of two or obsolete, while the remaining schools had no credit, which was interpreted as thoroughly unsuitable.

None of the schools was allotted any credit in the guidance and other offices item; therefore, all of the schools were considered to be thoroughly unsuitable in this item.

Utilization of Existing Schoolhousing

In recognizing that enrollments are increasing in the public schools of Brown County, Ohio, a detailed study was made of the utilization of the public schools there. The findings of this study will help school authorities solve certain administrative and educational problems, particularly at a later date when administrative and attendance units will be in the process of reorganization.

The study disclosed that the nineteen schools have one hundred and sixty-two classrooms. Mt. Orab has the highest number, fifteen, while Jackson, Lewis, Scott, and St. Michael each have the lowest number, which is four. Eighteen of the classrooms have an area of less than five hundred square feet; twenty-three have an area of five hundred to six hundred square feet; sixty-nine have six hundred to seven hundred; twenty-six have seven hundred to eight hundred; sixteen have eight hundred to nine hundred; and ten have over nine hundred square feet of floor area. Almost all of the classrooms have smaller areas than are recommended currently by educational authorities.

All of the schools have forty class periods each week except Fayetteville High School, which has six periods a day or thirty periods a week. Room periods were calculated for each school by multiplying the number of class periods a week by the number of classrooms. It was found that Mt. Orab has the highest number of room periods, six hundred a week, and that Jackson, Lewis, Scott, and St. Michael each have the lowest, one hundred and sixty. The total for the nineteen schools is six thousand four hundred room periods each week.

An analysis of the number of periods a week that classrooms were occupied by classes of designated sizes during the school year 1951-1952 disclosed that eight hundred and eighty-two of the six thousand four hundred room periods were not used, and that three hundred and fifteen were used by classes of from one to ten pupils. Six hundred and twenty-three were used by classes of eleven to twenty pupils, one thousand nine hundred and forty-five by classes of twenty-one to thirty pupils, one thousand seven hundred and thirteen by classes of thirty-one to forty pupils, seven hundred and seven by classes of forty-one to fifty pupils, and two hundred fifteen by over fifty pupils.

The percent of classroom utilization of the schools ranged from one hundred percent down to fifty percent, the average for the whole school system being 86.2 percent. This is an optimum average, but the pupils were not well distributed among the schools.

Recommendations

The recommendations were concerned chiefly with procedures preliminary to construction of new schoolhouses and the rehabilitation of existing schoolhouses to be retained, namely, the reorganization of the present administrative and attendance units.

The accepted criteria for the size of satisfactory administrative units were compared with the existing situation in Brown County. It was apparent from this comparison that the only satisfactory solution would be for all of the school districts in the county to be reorganized into one administrative unit.

Criteria for the size of satisfactory attendance units were compared with the status of attendance units in Brown County. Resulting from this comparison, it was recommended that the nine high school attendance units be reorganized into three, and that one elementary attendance unit, namely, Lewis, be dissolved. This would leave fourteen elementary attendance units.

Three new comprehensive high schools were recommended, one to be located in each of the new high school attendance units. Each new high school should be planned for an enrollment of at least five hundred pupils, since it was predicted that there will be fifteen hundred pupils in grades nine through twelve in Brown County within five or six years. It was recommended that these new schools be located on sites of from fifty to one hundred acres just east of Mt. Orab, Georgetown, and Ripley. They should be close enough to these villages, however, to use their water supply systems.

It was recommended that five existing elementary schools, namely, Georgetown Elementary, Lewis, Ripley Elementary, St. Martin, and St. Michael be abandoned as soon as the three new high schools have been occupied. Pupils who have been attending these five elementary schools should then be housed in buildings formerly used by high school pupils. It was recommended, too, that the school authorities speed up their rehabilitation program, especially in those buildings that are to be continued in use. It is significant that in carrying out these recommendations the four schools that ranked the lowest in the evaluation of the educational adequacy of existing school

buildings would be abandoned, and that the pupils who had been housed in them would then be transferred to the four schoolhouses that ranked the highest in the evaluation.

It was disclosed that over \$2,000,000.00 could be raised within Brown County for the construction of new schoolhouses under existing laws and conditions. Any amount above that figure would obviously need to come from sources outside the county. It was recommended that the board of education and the superintendent of schools keep informed through the State Department of Education on how to avail themselves of additional money that might be secured from other sources.

Concerning pupil transportation, it was recommended that both elementary and high school pupils ride the same buses to the elementary schools each school-day morning, and that the high school pupils then ride express buses to the appropriate high schools. In the afternoon, express buses would return the high school pupils to the elementary schools, where they and the elementary pupils would ride their respective buses to their homes.

On July 19, 1952, the Brown County Board of Education appointed a lay advisory committee to study the educational needs in the county. The committee held a series of meetings at which the findings and recommendations of this study were presented and discussed. At its meeting on February 3, 1953, the committee voted in favor of reorganization and in favor of three high schools for the county. They have made this recommendation to the Brown County Board of Education. The people of Brown County have been kept informed about the activities of the

committee through the local newspapers as well as through the Ohio Valley sections of the Cincinnati newspapers. It was recommended that a lay advisory committee be retained permanently, and that it affiliate with the National Citizens Commission for the Public Schools, which has its central offices in New York City.

The exact steps that the board of education, the superintendent of schools, and the citizens of Brown County should go through to build their new schools can not be determined now. A list of the twenty-eight usual major steps in such procedures was presented, however, for the convenience of those concerned.

Problem for Further Study

It is anticipated that professional and lay people in Brown County will continue to improve their attitudes toward educational problems. It is recommended that those changes be measured and evaluated by applying periodically alternate tests constructed for the purpose of detecting attitude changes. Members of the lay advisory committee, parent-teachers associations, and the teaching staff could be included with a sampling of the general public. It might be desirable to include high school pupils in the sampling, also. The school authorities could learn from this procedure how to lead more of the people of Brown County to interest themselves in the improvement of education for children, youth, and adults.

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APPENDIX A

Directions for Using
the Guide for Evaluating School Buildings¹

This Guide for Evaluating School Buildings is designed so that all features of a school plant can be appraised and the appraisals summarized on profile charts. Proper use of the Guide insures critical and complete examination of the building and its site. The profile charts are effective in building surveys, in plant planning studies, or in discussions of school building features. They give an accurate picture of the condition of a building in such form that its adequacies and inadequacies may be readily recognized.

The Guide is also expected to be of value as a check list in the design of new school buildings and in the development of plans for remodeling older structures.

Before a building is scored, certain basic data should be obtained if possible. These data include:

- 1) topographic, population, and enrollment distribution maps of the area served by the school.
- 2) building plans and specifications.
- 3) date of construction and additions, if any.
- 4) the type of educational program for which the building was intended.

If building plans are not available, the scorer can make a sketch of each floor on the cross-section page included in this guide. It is also advisable to sketch the lot and the location of the building upon the lot.

The Guide uses the subtractive method, thus requiring of the scorer justification for any score below the maximum. There is reason to believe that this method should prove more specific and objective than the additive.

It is suggested that, when possible, two or more judges score each building independently and that the final point for each item be

¹ Ralph D. McLeary, Guide for Evaluating School Buildings, pp. 1-3. Cambridge: New England School Development Council, 1949. Pp. 41-52.

the median score awarded by the judges or a score decided upon in conference. This procedure should serve to give a more reliable measure than the work of a single scorer. If convenient, the scorer can well be accompanied by a stenographer to take notes dictated as the building is inspected. This process greatly increases the efficiency of the scorer.

The Guide consists of this section on directions, a page for entry of general information, several pages of score sheets covering plant facilities, a section on supplementary criteria, and a set of profile charts.

The right hand pages of the score sheets include a classified enumeration of plant features, each with an abbreviated list of criteria to follow in scoring, and each with a listed maximum penalty. On the left hand pages are spaces opposite these items for entry of notes justifying each penalty given and for other comments.

For each item the size of the penalty given should depend upon the degree of inadequacy of that item in the building scored. To assist the scorer, a penalty scale is printed at the bottom of each page. For each listed penalty there is a division into a six-point scale. The points on the scale are identified by the headings E, S, F, P, V, and N. These headings represent levels of appraisal as follows:

- E. Excellent in all respects--no penalty possible.
- S. Satisfactory.
- F. Fair, usable but improvement highly desirable.
- P. Poor, questionable for continued use.
- V. Very poor, definitely inadequate or obsolete.
- N. No credit.

The numbers printed in the first column of each penalty scale correspond to the maximum penalties listed for each item in the scoring columns.

When the inspection of the building has been completed, credits for each item and then for the various sub-headings and major headings can be computed.

If the total penalties on any item exceed the credit allotted for the item, as is possible, the item should be scored as zero.

It cannot be expected that any brief phrasing of criteria can

include all possible deficiencies or inadequacies. Those not specifically described should be entered under the most nearly appropriate item.

Some deficiencies can be listed under more than one item. Whether or not penalties are prescribed in more than one place and the severity of the total penalties should depend upon the seriousness of the inadequacy.

In considering any item, as for example, item 1A1c (section c under Accessibility of Site) the scorer will decide the level of adequacy. If this is determined to be F (see above), since the figure in the column headed "Penalty List" is 5, the penalty to be given will be found in the scale at the bottom of the page to be 2.

Therefore, the figure 2 is entered in the box opposite item 1A1c in the column headed "Penalty Given."

If, similarly, the penalties given for items 1A1a and 1A1b are respectively 0 and 3, the total penalties under Accessibility (item 1A) will be the sum of 0, 3, and 2, which is 5. Therefore, the figure 5 will be entered in the box opposite item 1A (Accessibility) in the column headed "Penalty Total."

Since the credit for this item is 15 and the penalty total is 5, the item score, to be entered in the box just to the right of the penalty total is 10.

When all item scores under the subheading 1A (Location and Selection) are entered, their sum is entered in the box opposite item 1A in the column headed "Score Subtotal."

In similar fashion, other penalties and scores are computed and entered. When this has been done, the sums of the subtotals for the main sections of the score sheets are computed and entered in the boxes in the last column at the right. These figures (and the subtotal figures for sections IV and V) are then entered in the score summary on page 37.

Building provisions not present, AND IN THE OPINION OF THE JUDGES NOT NECESSARY FOR EFFICIENT FUNCTIONING OF THE EDUCATIONAL PROGRAM will be credited on a proportional basis. For each such item give that proportion of full credit corresponding to the proportion of available points earned by all other items under the same main division. For instance, if there is no kindergarten and in the opinion of the judges, none is necessary, if fifteen points are assigned to that item, and if all other items scored under the main heading of "Special Classrooms" give a total of 47 out of the possible 55 points (subtracting the 15 points for kindergarten from the total of 70 for special classrooms), then credit the kindergarten item with forty-seven-fifths

of 15 points. This amounts to 13 points and makes a total of 60 points for special classrooms.

When the point totals have all been computed and entered in the proper spaces on the score sheets and in the summary, the profile charts should be prepared. Beginning with the subsidiary profile charts, draw small circles or dots on each ordinate to represent the score for the corresponding item. Connect these circles with straight lines to make the profile.

When the subsidiary profile charts are completed, the main profile chart for the building may be filled out, using the totals on the eight main divisions of the score summary.

Lest the prescription of definite penalties serve to crystalize school building standards on the plane of best present day practice and thus tend to stifle new developments and experimentation, it should be understood that newly developed features which have had their inception since the last revision of this Guide and its criteria should be given credit if they are, in the opinion of the judges, equivalent in value to the criteria for which they are substituted.

It may thus be seen that this Guide may be used with any code or set of standards. Actually for best results the judges or scorers should be familiar with all good modern sets of standards and with as much as possible of the general and special publications referring to school building planning. The various state codes, the material available from the United States Office of Education, and the publications of the National Council on Schoolhouse Construction are of very great value for this purpose.

APPENDIX B

Statement of the National Council
of Chief State School Officers regarding Elementary,
Secondary, and Adult Education¹

- I. Adequate Elementary and Secondary Education is Fundamental in Our Society
- A. These are the most important of all education programs and reach far more people than any others. They should be considered adequate only when provision is made for helping each individual:
1. to be personally adjusted, socially useful, and economically effective.
 2. to understand and to deal with the recurring problems of daily living.
 3. to achieve the attitudes, habits, controls and skills basic to American democratic society.
- B. Programs of elementary and secondary education should:
1. be planned as related, continuous, and articulated experiences appropriate for all children and youth.
 2. serve the common and peculiar needs of all children and youth and the special needs of exceptional children and youth.
 3. provide for learning through direct and vicarious experiences, utilizing fully all school and community resources.
 4. be sufficiently flexible to permit adjustments to changing and emerging needs of children and youth.
 5. prepare all students either to enter college or to enter successfully upon and to make satisfactory progress in an occupation.
 6. provide continued opportunities for education of youth and adults not in regular attendance at school.
- C. Guidance is an essential part of an adequate education program, and should be emphasized as an integral part of the instruction process as well as a specialized service in education. Appropriate attention should be given to educational, social, emotional, and vocational aspects of guidance.

¹ The National Council of Chief State School Officers, Our System of Education, pp. 7-14. Washington: The Council, 1950.

- D. Study of the psychology and physiology of child development by teachers should be emphasized, both to discover the needs of pupils and to guide them intelligently as they learn to assume increased responsibility for making their own decisions.

II. The Scope of Elementary and Secondary Education Should Be Extended

- A. Local education authorities have a primary responsibility to organize and administer a program which will meet the educational needs of the community.
- B. An appropriate tax-supported public education program should be free and available to each person who has reached the age of three years.
- C. A program of education for occupational competence adjusted to the requirements of the individual and to the changing conditions of society should be free and available to every person who can benefit from it.
- D. A State program of free public community college education should provide for the following:
 - 1. Students desiring to enter various technical and semi-professional occupations which require one or two years preparation beyond high school graduation.
 - 2. Students desiring preparation beyond available high school training in occupations for which the high schools provide the basic preparation.
 - 3. Students preparing for admission to professional schools or the last two years of technical and liberal arts colleges.
 - 4. Students desiring to complete their general education before entering employment or becoming homemakers.
 - 5. Adults and older youth, mostly employed, who desire to continue their education during their free hours.

III. Adult Education is Imperative in Our Rapidly Changing Society

- A. Local school districts, encouraged and assisted by the State department of education, should establish adult education programs wherever they are needed.
- B. State plans for financing programs of education should make adequate provision for adult education.
- C. The State should provide special preparation for teachers in the field of adult education.

- D. Adult education should provide the following:
1. Foundation education which would eliminate adult illiteracy and make easily available the opportunity to acquire at least a common school education.
 2. A program of family life and parent education.
 3. A vocational education program broadened beyond the fields currently subsidized by the Federal government.
 4. Continuing citizenship education for all adults through such media as discussion programs, forums, films and lectures.
 5. "New voter" programs for young adults with emphasis on the American heritage related to the current problems of our time.
 6. Guidance services, vocational retraining, and leisure-time education.
 7. Programs designed to help orient and integrate displaced persons and other immigrants into our culture.
 8. A service which would make improved educational techniques available to leaders of all interested community groups through training discussion leaders, consultation with program chairmen, and provision of educational materials and equipment.
 9. Leadership training and development for service in adult education programs.
- E. The State should develop and carry out a comprehensive program for vocational rehabilitation of disabled adults.

APPENDIX C

Criteria for the Evaluation of School Sites ¹

Location and Selection

Accessibility.--

- a. Should be near center of population served, or easily reached by mechanized transportation. Penalize for poor location in relation to other schools in the community, or excessive overlapping of natural attendance areas.
- b. Should be reached by good highways or walks.
- c. Should be so located as not to involve traffic hazards. Penalize if pupils have to cross high-traffic highways.

Environment.--

- a. Should be in residential or park district, and not in or adjacent to business or industrial areas.
- b. Streets about school should be tree-lined, and the general area should be attractively landscaped and well maintained.
- c. The skyline on all sides of the building should be not more than thirty degrees.
- d. Should be away from noise, smoke, and odors.
- e. Should be remote from taverns and other places having undesirable influences on youth.

Physical Features

Size.--

- a. Should be in accord with desirable functions. The Guide also presents the following supplementary criteria:

Site.-- The choice of a site for a new school building has been one of the most prevalent sources of community disagreement in educational history. Considerations of display have led to the location of schools on high-traffic highways, considerations of economy have led to the choice of sites which are too small and of limited utility, and local jealousies and rivalries have led to the choice of poor locations - all without due reference to the needs of the educational program and the welfare of the children.

Earlier evaluating devices for school buildings and the codes and standards of the past have generally contained tables of minimum site sizes in square feet per pupil or acres per hundred pupils

¹ Ralph D. McLeary, Guide for Evaluating School Buildings, pp. 7-9. Cambridge: New England School Development Council, 1949. Pp. ii / 52.

enrolled. Such figures for minimums have tended to become accepted standards. Inasmuch as the minimum requirements were set below truly adequate figures as concessions to urban and other situations where space is very difficult to obtain, reference to them has not given sufficient urging to desirably larger sites. Such tables will not be quoted here. They should be applied with caution.

The basic criterion is that the site shall readily accommodate all the activities required in the present and future program. The best way to determine the adequacy of an existing or proposed site is to lay out the required areas on a scale drawing and to allow, in the case of a new site, at least 25% as a "safety factor" or margin for future needs.

In laying out the space requirements for school sites the following list of items must be taken into account:

- a. Space for the building.
- b. Space for future additions to the building.
- c. Space for lawns. The building should not be closer than 100 feet to any edge of the site.
- d. Space for walks and driveways including front entrance driveway, service entrance driveway, and walks to all entrances.
- e. Parking space for teachers, pupils, visitors, for community use of buildings, and for attendance at athletic contests.
- f. Paved area for pupil use when turf is wet or soft and when frost is leaving ground.
- g. Space for loading and unloading buses.
- h. Segregated play area for kindergarten children.
- i. Segregated play area for children in lower elementary grades for unorganized activities.
- j. Play area for upper elementary grades, to include provisions for touch football, soccer, basketball, baseball, softball, and possibly tennis. These areas must cover needs of both boys and girls without conflict in use.
- k. Play area for junior high grades, to include provision for football, soccer, basketball, baseball, softball, track, and tennis. These areas must cover needs of both boys and girls without conflict in use.
- l. Play area for high school grades, to include provision for football, soccer, field hockey, basketball, baseball, softball, track, tennis, and archery. These areas must cover needs of both boys and girls without conflict in use.
- m. Alternate space for use to permit rest and renewal of turf on other areas.
- n. Margin for future possible expansion of activities.
- o. General recreational areas for community if these needs are not otherwise met.

In determining site sizes for various combinations of grade levels, the separate requirements must be added together. For example, for a junior-senior high school there must be separate accommodations for the two groups. Certain areas may overlap. Areas used for soccer and field hockey in the fall may be baseball outfields, softball fields, or archery ranges in the spring. Paved areas for wet weather use may be out-of-door basketball courts, may be flooded for hockey, or used for overflowing parking. Playfields should not encroach upon each other when used simultaneously and there must be suitable space for stands for spectators. Schools of any size require several fields for each game since there will be a number of squads. In the case of football, there should be practice fields in addition to a game field.

Except for games requiring special surfaces, as track and tennis, the only suitable surface is good turf. All playing fields must be laid out according to the exact specifications for each game.

Form.--

- a. Should be approximately rectangular, with length not more than four times width. Do not penalize for non-rectangular shapes if site is adequate in size and function. If very inadequate in size, penalize fully for form.

Elevation.--

- a. Site should not be lower than immediately surrounding land. Penalize for damp or marshy areas, and for substantially higher land adjacent to the site.

Nature of soil and drainage.--

- a. Soil should be non-erosive, preferably dry, sandy loam. Penalize for natural hazards, such as rocky ledges, unless these have been functionally adapted to the site (i.e. rockgardens). Penalize if the soil does not support good turf.
- b. Building and grounds should be properly drained. Penalize for signs of erosion and for indications of faulty drainage.

Improvements, Arrangements, and Landscaping

General features.--

- a. Building, play facilities, drives, walks, trees, and shrubs should be arranged with due heed to aesthetic appearance.
- b. Proper amount of space should be devoted to playgrounds and athletic fields. Penalize heavily if playgrounds are inadequate or not well developed.
- c. Athletic fields should be properly fenced.
- d. Parking space should be provided. Penalize if not properly located, paved, or if in any way hazardous to pupils.

APPENDIX D

Criteria for Evaluating Building Design and Structure¹

Placement

- a. Should be so oriented as to provide adequate natural light for all educational functions. The Guide also presents the following supplementary criteria:

The questions of school building orientation, type of fenestration, and natural and artificial lighting are all primarily concerned with planning to provide good seeing conditions for the various activities which are to be carried on within the building. Although listed separately in the scoresheets these topics are all interrelated and in this general discussion of desirable features can well be considered together. Changing concepts of what constitutes good seeing conditions for pupils' work and modifications of the pattern of a desirable learning program, together with a new freedom of design, have resulted in altered concepts relative to all of these items of consideration.

Practically all of the standards for the evaluation of school buildings in relation to these features before the second World War could be traced more or less directly to the characteristics of the traditional educational program. This educational program was such as could be best carried out by having the pupils seated in fixed seats arranged in straight lines with all pupils facing one direction. Under this program the chief virtue of the pupil was his ability or willingness to sit quietly in his seat and to perform more or less as a trained seal in a mechanical repetition of various sequences of learning activities, most of which were based upon the use of a textbook, a pencil, and paper.

Because of the fact that the majority of the pupils were right-handed in writing, it became more or less a fetish that a pupil should sit so that the light would come over his left shoulder in order that no shadow of the hand would be cast upon the writing. Inasmuch as the pupil had only one seating position

¹ Ralph D. McLeary, Guide for Evaluating School Buildings, pp. 9-17. Cambridge: New England Development Council, 1949. Pp. ii / 52.

under this program, this condition was carried over as a necessity for reading. Furthermore, because most of the school rooms were painted in dark colors, with low reflective values, the brightness contrast between a window area and the rest of the environment was uncomfortable. Therefore, it was considered undesirable from the point of view of comfort for the teacher to have any windows in the rear wall of the room, since under this program the teacher inevitably stood in the front of the room facing the array of pupils. On the basis of this line of thinking it seemed to be allowable to have light from only one wall of the room, namely that which would be at the pupils' left as they faced the teacher. This is the basis of the standard scheme of unilateral lighting. Furthermore, because one wall did not allow a relatively large amount of area for use as windows, the limitation of the situation was realized by setting up standards or rules requiring as much of this wall as possible to be used in fenestration. It is for this reason that there exists the very common requirement that the window area must equal at least 20% of the floor area.

Having windows only on one side made it necessary that the rooms be relatively narrow and that the ceilings be relatively high in an effort to get as much light-throw as possible across the room. Under this condition, in order that there should be some sunlight in each room each day, and also in order that no room should be too greatly exposed to sunlight directly, thereby requiring the use of pulled-down window shades, which in turn would generally cut off too much light, a great deal was made of the orientation of the classroom. North orientation appeared to be undesirable for general classroom use because there would be no sunlight available. South appeared to be undesirable because there would be too much direct sunlight. The result was an advocacy of east or west orientation for classrooms, sometimes modified to allow southeast or southwest exposure.

In spite of all these precautions, or perhaps because of them, unilaterally lighted classrooms are almost always deficient in light near the inside wall of the room. Except upon very bright days the usual classrooms arranged in this fashion provide not more than five or six footcandles of light upon a desk on the inside row.

Because of this deficiency of natural light, much recourse had to be made to artificial light and it was generally prescribed that there should be two rows of incandescent lights with preferably three fixtures per row for the so-called standard classroom. It was also required that each row be independently switched so that it would be possible to turn on the lights along the inside row to supplement the small amount of natural light being thrown across the room.

Since the windows in these relatively dark rooms provided a great brightness contrast as compared with other wall areas, it was necessary to have much manipulation of window shades. To provide as much flexibility as possible, center-hung double shades became widely prevalent and it was prescribed that the banks of windows on the exterior walls would have very narrow piers so that there would be no dark spaces to contrast with the window areas on that side at least, and also to make it possible to have as large an area of fenestration as could be squeezed out of a single wall.

Several things have happened which have upset this prescribed standard situation. In the first place the educational program has been modified to involve many activities which are not of the sedentary type. Because of this modification, it has become general to have movable seating and other equipment and therefore the children are not all the time seated in fixed rows all facing in one direction. Along with this has come a new freedom of design on the part of the architects who have found it possible to design rooms with large areas of glass block or plain glass on more than one side of the room, so arranged in combination with color schemes of much higher reflection values that the brightness-contrast ratios for all room surfaces are relatively small.

This changing circumstance has brought an end to the so-called standard classroom arranged like the cells of an institution along the sides of a corridor as an unbreakable requirement. It is possible now to have many sizes and shapes of classrooms with a large variety of ways of introducing natural light. A rigidly fixed orientation is also no longer necessary.

What then are the essential conditions? In general they are as follows:

1. Intensity of Light - There must be sufficient natural light entering the room under all except the most unfavorable cloud conditions, and it must be so evenly distributed that there will be a sufficient intensity of light upon each working surface to enable the work to be carried on with convenience and ease. Nobody can say exactly how many foot-candles are necessary, but the trend or opinion has favored increasing intensities in recent years to the point where there is a fair agreement that at least thirty foot-candles of light are necessary on a desk top for reading, writing, and other similar activities.
2. Brightness-Contrast - Not only must there be sufficient light, but the light must be so reflected from surface to surface and thence to the eye that there will be no uncomfortable brightness-contrast between the task upon which

the attention is focused and the rest of the visual environment. Good seeing conditions require high contrast within the limits of the task and relatively low contrast between the background of the task and other areas which border it.

Probably the best way to make this possible is to have a great deal of light coming into the room from more than one wall with direct sunlight cut off or diffused through glass blocks or by baffles and to have the ceiling and upper walls so finished that they will reflect 85% or more of the light which strikes their surfaces but without pronounced glare from smooth and shining finishes. Over and beyond this, however, all of the furniture and equipment, floors, and lower wall surfaces should reflect substantial amounts of light even up to 45% or 50% reflection values.

- b. Should have controlled light of constant and adequate intensity for studios.
- c. Should have adequate natural light for toilets, home economics laboratories, cafeteria, gymnasium, and pool.
- d. Should have best placement of masses and area for convenience and beauty.

Educational Plan and Utilization

- a. Educational program should be formulated in writing before building is designed. (Disregard for old buildings where evidence cannot be obtained.)
- b. Should be expansible without destroying balance. Service systems should accommodate additions.
- c. Building should be flexible. The Guide presents the following supplementary criteria:

A great deal has been said in recent years about the necessity for designing school buildings so that they will be flexible. This term has been used for many purposes. In one type of use it generally means to have the building so designed that it can have additions without destroying a large part of the original structure. For this purpose, the chief requirement is to have a simple, fairly open, design with corridors running through to the exterior walls and with space enough on the site for the additions.

It is probable that the chief reason for the stress upon flexibility arose from the necessity of enlarging classrooms as built during the 1920s and 1930s to make them suitable for the modern elementary school program, particularly in the elementary grades. During those decades, there was a tendency to make rooms as small as possible, chiefly as a device to keep communities from overloading the teachers with too large classes. There is reason to believe that this prescription was one of the chief reasons behind the size prescribed for the so-called standard classroom. This standard classroom was made 22' to 23' wide and 29' to 30' long so that it would only be possible at best to put in five rows of seven desks, thus making it impossible to assign more than 35 pupils to a teacher. Actually this did not prevent the moving in of additional desk units into the corners. But it did serve to keep the teacher from being loaded down with 45 to 50 pupils.

This, however, could only work as long as the educational program was restricted to the type that could be carried out with fixed seating. As soon as an activity program became prevalent the so-called standard classroom immediately became a cramping factor upon the program. Classrooms of this type are prevalent throughout the country and the urge to modify the program has led to many attempts to build one classroom out of two or two classrooms out of three. This could sometimes be done if the intervening partitions were non-bearing, or if there were a sufficient number of rooms in a row without having offices, store-rooms, or toilets in between them. Most of the demand for flexibility has been based upon this experience. It very probably would not have been given such weight if the classrooms had been large enough in the first place.

If new buildings are built in the future with large classrooms having ample, or sometimes even more than ample, floor space, this reason for emphasizing flexibility internally will more or less disappear.

It is possible to say, therefore, that the criterion of flexibility may well be considered as a criterion of future adequacy. It requires the provision of changeability, but more important is the provision of a margin over present adequacy. It is akin to the safety factor in strength of materials and design which is a primary consideration of engineers.

In terms of site, the provision of not enough or barely enough usable land for present needs results in an inflexible situation in the future. Initial provision of more than enough usable land for present needs would result in future flexibility. Similarly,

a free margin of space in each classroom meets the requirements of the flexibility criterion and, particularly in these days when changing opinions on desirable light intensity are trending toward even higher figures, the provision of more than enough daylight allows for the meeting of future needs without tearing out brick walls.

- d. Building should be economically planned to permit maximum utilization.

Gross Structure

Type of Construction and Materials.--

- a. Should be free from all hazards under all conditions.
- b. Should be structurally sound and enduring, with best possible materials and competent workmanship.

Form and Architecture.--

- a. Should be attractive and pleasing, well suited to its locale.
- b. Should be practical and efficient, both operationally and educationally.

Foundations.--

- a. Should be strong and stable.
- b. Should be properly waterproofed and drained.

Height.--

- a. Penalize if height is out of proportion to situation and type of construction. The supplementary criteria follow:

It has been customary in the past particularly in urban areas, to construct school buildings higher than present standards of safety and economy dictate. The heavier construction required in multiple-storied buildings is apt to be fully as costly as the greater perimeter and roof area required in lower buildings of equivalent usable capacity. Two or more stories create a potentially dangerous situation in case of fire and intensify the pupil traffic and supply delivery problems.

In rural and suburban areas there is no particular advantage to constructing a building of more than one story. A building of this height, particularly if there are outside doors to all classrooms, provides maximum safety for occupants.

In urban areas, because of land values, multi-storied buildings may be unavoidable. If so, elementary buildings should not exceed two stories with basement areas used only for service functions and storage. Secondary schools should not go above three stories and preferably should not have more than two stories.

Wall and Floor Construction.--

- a. Exterior walls should be sufficiently strong, airtight, and perfectly water-tight.
- b. Interior bearing walls should be sufficiently strong, and located so as not to interfere with the function of the building. Non-bearing walls should be light and durable.
- c. Ceilings should be strong, safe, attractive, free from cracks and holes, and with suitable light reflective value. Floors should be well laid, free from marks, humps and holes, worn spots and splinters. Must be attractive, of proper type, and with smooth even finish in good condition.

Roof.--

- a. Should provide durable, weatherproof watershed.
- b. Should be properly flashed and drained.
- c. Should be in good condition.

Entrances and Exits.--

- a. Should be adequate in number, size, and type. Penalize for outside fire escapes.
- b. Should be properly located, and in good condition.
- c. Should be properly constructed and equipped for safety. Exits should open with direction of travel.
- d. Doors and frames should be strong and durable.
- e. Should operate easily and efficiently. Suitable hardware, automatic locks, panic bars, door checks, and kick plates should be used where needed, and should be in good operating condition.

Condition and Appearance.--

- a. Should be clean, well-painted, and in good repair.
- b. Building and equipment should be in perfect operating order, and free from hazards.

Acoustics.--

- a. Building should be properly designed, constructed, and equipped for control of sound.

Fenestration.--

- a. Windows should be adequate in size and number, of proper type and design, and suitably located. The supplementary criteria under Placement also apply here.

Internal Structure

Stairways.--

- a. Should be sturdy and safe in all respects. Both staircase and stairwell should be fireproof. Penalize for stairways too steep, or with narrow treads, and for too long flights without landings.

- b. Should be adequate in number and size. Penalize for stairways too wide and without center handrail.
- c. Should be properly located and of suitable design. Penalize for stairways which do not lead directly to exits.

Corridors and Lobbies.--

- a. Should be properly designed and located to accommodate and control traffic flow. Where desirable, should accommodate pupil lockers. Penalize for waste space in poorly designed corridors. Penalize for blind ends remote from exits.
- b. Should be well-lighted, safe, quiet, attractive, and easily maintained. Penalize if excessively noisy, or dark, or in any way hazardous.

Basement Areas.--

- a. Basement areas should not be used for pupil activities. The Guide presents the following supplementary criteria:

For educational purposes, a basement area is one in which the eye level of seated occupants is below ground. Such areas should not be used for any pupil activities. Basement areas should be clean, dry, painted in light colors, and free from hazard. Cluttered basement areas are a distinct fire hazard. The practice of sinking a whole story below ground level, with its consequent use for various pupil activities, is undesirable. The majority of the building should be above ground level, with only the heating plant and certain storage and service facilities below ground level. Actually it is by far best to have no spaces used by pupils with floors below ground level.

- b. Should be clean, dry, safe, and attractively painted. Penalize for basement toilets.

Attics.--

- a. Any attic space that may result from the design of the building should be easily accessible, free from hazards, and not used for storage or any pupil activity.

APPENDIX E

CRITERIA FOR EVALUATING SERVICE SYSTEMS ¹

EDUCATIONAL ADEQUACY OF PRESENT SERVICE SYSTEMS

Heating and Ventilation

- a. Should provide continuous and automatically controlled heat of proper degree, as required by conditions of climate.
- b. Should provide adequate supply of clean, dustfree air of proper humidity without creating drafts. Special ventilation should be provided where needed (e.g. shops, kitchens, food and science laboratories).
- c. Should be in good repair, and in clean and neat condition.
- d. Should be free from hazards under all conditions. Penalize if air ducts and ventilating units are built of combustible material or are not equipped with thermostatically controlled dampers.
- e. Should be efficient, flexible, easy to operate, economical, and capable of meeting all possible loads. Penalize if not zoned to permit heating of special units (such as auditorium) individually when desired.
- f. Should be capable of expansions to serve building additions.

Artificial Lighting

- a. Should provide adequate illumination, without glare or shadows, for all spaces and surfaces where needed. The following supplementary criteria are also presented:

To assist in reducing brightness-contrast various materials are being tried out for chalkboards which make it unnecessary to have black areas around the walls. A number of light-colored composition boards can be used with dark crayon or dark chalk. Colored glass and special green paint on slate or other suitable surfaces are also being tried, and the best results seem to be reported from the use of white and yellow chalk on these green surfaces. On very light boards, dark-colored chalk would give the best contrast within the area of the task, but the colored chalk is unpopular because it is so messy.

¹ Ralph D. McLeary, Guide for Evaluating School Buildings, pp. 17-25. Cambridge: New England School Development Council, 1949. Pp. ii / 52.

Since there are times when even the best of fenestration cannot provide sufficient natural light on cloudy days, it is wise to have well designed artificial light facilities, even though the rooms are not intended for evening work. Rows of double fluorescent units seem to be gaining favor although there are many who prefer the equivalent intensity of incandescent lights. For buildings which are to be used for night work, the artificial illumination must be made adequate to provide suitable complete lighting.

- b. Should have flexibility of control, and efficiency and economy in use.
- c. Should be safe, in good condition, and easily maintained.

Water Service

- a. Should provide adequate supply of hot and cold water to all points of use, with pure cold water for drinking, and with all equipment designed for complete sanitation.
- b. All equipment and fixtures should be conveniently located, of proper design, efficient, and safe in use. Drinking fountains should be recessed with angle stream and mouth guard. Suitable adequate handwashing facilities should be provided. The following supplementary criteria are also presented:

Drinking water and washing facilities should be located in the building wherever necessary to insure good habits of cleanliness. All toilet rooms should be provided with wash-bowls, soap, towels, and hot and cold water in sufficient quantity. In addition, washing facilities may be required in other places, such as the industrial arts room, the art room, science rooms, and in classrooms on the elementary levels. No student should eat his lunch without first having washed his hands, and the washing facilities in the building should make this sanitary practice convenient.

- c. Should be in good condition, and easily maintained and repaired.

Toilet and Sewer System

- a. Toilets should be conveniently located on each floor for each sex, and for public use as needed. Toilets should also be provided as needed in connection with health and office suites, custodian's quarters, teachers' rooms and cafeteria kitchen. The following additional criteria are also presented:

Toilets for pupil use should be located on each floor of the building for each sex. The toilet rooms should be finished

in light, attractive colors, with surfaces impervious to water and resistant to marking. Forced ventilation should be used. Fixtures should be modern, convenient, durable and easily maintained. There should be an abundance of natural light.

The kindergarten unit, the custodial, administrative, and health units, and the physical education facilities require separate toilets. Facilities commonly used by the public, such as the gymnasium and the auditorium, should have an adequate number of toilets. If possible, separate toilets with direct access should be provided for primary classrooms.

Construction and equipment surfaces in toilet rooms should be chosen with a view to ease of maintenance. Porous, odor-absorbing materials should be avoided. Toilet placement within the building should make for accessibility without undue congestion of traffic.

- b. Toilets should be adequate in the number of water closets, urinals, and lavatories. Penalize if drinking fountains are located in toilet rooms.
 - c. Toilet equipment and fixtures should be strong, safe, sanitary, efficient, economical in use, and resistant to damage.
 - d. Toilets should be clean, neat, well ventilated and lighted, in general good condition, and designed for ease of maintenance and repair.
 - e. Toilets used by pupils should be designed for ease of supervision.
 - f. Sewer systems should be adequate for all demands, safe and sanitary, in good condition, and accessible for repair and maintenance.
- Following are the additional criteria:

The water should be palatable and safe to drink. Water in bubblers should be cold without excessive running. The building should be provided with sufficient water supply to accommodate its needs. These include the toilets, washrooms, showers, cafeteria kitchen, home economics suite, and if present, the sprinkler system. Drainage and sewage lines should be adequate to meet peak load, designed for relative ease of maintenance, and capable of being inspected and checked periodically.

Fire Protection

- a. Construction should be fireproof or extremely fire resistant. Supplementary criteria are as follows:

Fire protection may be divided into two categories: safety of the occupants, and the fire-resistive qualities of the

building. Of these two, the former is the more important.

Single-storied buildings are the safest. Each classroom should have two means of exit. A one-story building that is free from structural defects, and has no danger of explosion (The Consolidated School, New London, Texas, a one-story building, exploded on March 18, 1937, killing 294 persons) offers little risk for loss of life, regardless of its construction material.

In the case of multiple-storied buildings, the problem of safety of the occupants becomes more complex. Such buildings should be of fire-resistive construction, with only trim finish, floor finish, sash, doors, and furniture being combustible.

All stairwells should be enclosed in standard fire-resistive stair shafts. The heating plant and fuel room should be completely surrounded by fire-resistive walls, with self-closing fire doors except in exterior walls. The number and location of exits should be such as to insure prompt and orderly emptying of the building under all normal conditions of the school day.

- b. Construction should provide absolute safety for all travel passages, both vertical and horizontal.
- c. Construction should give completely adequate protection around spaces involving special fire hazards.
- d. Exit system should provide two separate means of egress from any area where pupils gather, and should permit emptying the building in less than three minutes.
- e. Apparatus should provide positive and fool-proof alarm system.
- f. Apparatus should provide sufficient means of gaining quick control of all fires of every type without hazard to personnel. Supplementary criteria are as follows:

Fire fighting equipment is a factor in saving the building. The best fire fighting equipment is a sprinkler system. To be effective, this should afford protection to the entire building with adequate pressure at all points. The sprinkler system should be properly connected to give an alarm to the local fire department. A school building thus protected carries minimum risk to both itself and its occupants.

The disadvantages of a sprinkler system are the installation expense, the possibilities of water damage, and the unsightliness of the sprinkler heads.

Automatic fire-detection equipment is also available. The function of such equipment is to give prompt notice of any fire in the building while the fire is small. It aids in protecting the building rather than the occupants. In localities where sprinkler systems are impracticable, the installation of such equipment may be desirable.

Non-automatic fire fighting devices should be provided throughout the building as needed, especially in places of high fire hazard, such as the heating plant, laboratories, kitchen, and shops. There are various types of manually operated fire extinguishers, each suited to a particular purpose.

In renovating old buildings or constructing new buildings, all state and local building laws should be observed. Since these vary in excellence and thoroughness, an additional set of "standards" published by a reputable national organization such as the National Fire Protection Association, should be consulted.

Lights and Power

- a. Should provide proper current wherever needed, with suitable controls, safety devices, auxiliary systems and circuits, and efficient arrangement of outlets, switches, and panels.
- b. Should conform to all controlling codes, legal requirements, and insurance standards.
- c. All wiring, equipment, and devices should be reasonably modern, safe to use, in good condition, and easily repaired and maintained. Penalize if circuits are overloaded, or if fuse amperage is excessively high.
- d. Systems should be expansible with additions to building.

Clocks and Bells

- a. System should provide accuracy of timing, reliability, service, durability with minimum care, suitable audibility, automaticity, and efficiency with economy.
- b. System should be expansible with additions to building.

Fire Alarm System

- a. Should provide for positive alarm from suitably convenient stations by automatic or simple manual operation.

- b. Should be connected to municipal system if such exists, with cut-off for tests and drills.

Telephone System

- a. Should provide outside connections with suitable extensions for such offices as size of school makes desirable. Penalize in full for absence of phones, improper location, or insufficient number of phones or extensions.
- b. Should provide centralized intercommunication system among classrooms, service rooms, and offices. In larger schools, should provide additional selective ringing and speaking intercommunication among offices.
- c. Should provide adequate number of coin telephones for pupil and public use. (Disregard for small elementary schools.)
- d. Should be in good working order, subject to easy maintenance, and expandible with additions.

Public Address and Audio-Visual Systems

- a. Public Address System should be best available at time of building; should be properly installed, flexible, selective, in good condition, and easily supervised. (Disregard for small elementary schools.)
- b. Audio-Visual systems and equipment should provide adequately for the proper function in teaching wherever needed, be reasonably modern and be in good order.

Other Service Systems

- a. Vacuum cleaning systems, mechanical ash lifts, elevators, book lifts, waste chutes, incinerators, auxiliary lighting systems where needed, and any other service systems required by the design and construction of the building should be provided in safe and good working condition, and be easy to maintain.

APPENDIX F

CRITERIA FOR EVALUATING CLASSROOMS¹

Regular Classrooms

Size and number.--

- a. Should be sufficiently large for the educational activity of the room. Penalize in full for rooms which do not meet requirements of program. Supplementary criteria follow:

The classroom should be sufficiently large to facilitate the conduct of a modern educational program. Advances in lighting, both natural and artificial, have eliminated the need for narrow rooms. In most places, it is no longer necessary to construct small classrooms in order to prevent unduly large classes. In new school plant construction, therefore, the shape and size of the classrooms, freed from these past restrictions, can be determined by the functional needs of a proper educational program.

Suggested areas for classrooms, based on the needs of classes of 25 pupils, are:

- 1200-1400 square feet for a kindergarten.
- 900-1000 square feet for an elementary classroom-
primary grades.
- 800-900 square feet for an elementary classroom-
intermediate grades.
- 700-800 square feet for a non-specialized classroom
in secondary grades.

- b. Should be sufficient in number to accommodate present pupil population and that anticipated in near future. Penalize in full for insufficient number of rooms.

Shape and location.--

- a. Should be shaped so that all areas are usable and adequately lighted. There should be no posts and no awkward jogs in the walls. Should be conveniently located, particularly with reference to related educational activities. Penalize in full for wasted cubage or shapes which detract from efficiency in use.

¹ Ralph D. McLeary, Guide for Evaluating School Buildings, pp. 25-31. Cambridge: New England School Development Council, 1949. Pp. ii / 52.

Natural light and light control.--

- a. Should provide sufficient controlled and well distributed illumination without glare in average weather. Brightness contrast should be low. Following are supplementary criteria:

The questions of school building orientation, type of fenestration, and natural and artificial lighting are all primarily concerned with planning to provide good seeing condition for the various activities which are to be carried on within the building. Although listed separately in the score-sheets these topics are all interrelated and in this general discussion of desirable features can well be considered together. Changing concepts of what constitutes good seeing conditions for pupils' work and modifications of the pattern of a desirable learning program, together with a new freedom of design, have resulted in altered concepts relative to all of these items of consideration.

Practically all of the standards for the evaluation of school buildings in relation to these features before the second World War could be traced more or less directly to the characteristics of the traditional educational program. This educational program was such as could be best carried out by having the pupils seated in fixed seats arranged in straight lines with all pupils facing in one direction. Under this program the chief virtue of the pupil was his ability or willingness to sit quietly in his seat and to perform more or less as a trained seal in a mechanical repetition of various sequences of learning activities, most of which were based upon the use of a textbook, a pencil, and paper.

Because of the fact that the majority of the pupils were right-handed in writing, it became more or less a fetish that a pupil should sit so that the light would come over his left shoulder in order that no shadow of the hand would be cast upon the writing. Inasmuch as the pupil had only one seating position under this program, this condition was carried over as a necessity for reading. Furthermore, because most of the school rooms were painted in dark colors, with low reflective values, the brightness contrast between a window area and the rest of the environment was uncomfortable. Therefore, it was considered undesirable from the point of view of comfort for the teacher to have any windows in the rear wall of the room, since under this program the teacher inevitably stood in the front of the room facing the array of pupils. On the basis of this line of thinking it seemed to be allowable to have light from only one wall of the room, namely that which would be at the pupils' left as they faced the teacher. This is the basis of the standard scheme of unilateral lighting. Further-

more, because one wall did not allow a relatively large amount of area for use as windows, the limitation of the situation was realized by setting up standards or rules requiring as much of this wall as possible be used in fenestration. It is for this reason that there exists the very common requirement that the window area must equal at least 20% of the floor area.

Having windows only on one side made it necessary that the rooms be relatively narrow and that the ceilings be relatively high in an effort to get as much light-throw as possible across the room. Under this condition, in order that there should be some sunlight in each room each day, and also in order that no room should be too greatly exposed to sunlight directly, thereby requiring the use of pulled-down window shades, which in turn would generally cut off too much light, a great deal was made of the orientation of the classroom. North orientation appeared to be undesirable for general classroom use because there would be no sunlight available. South appeared to be undesirable because there would be too much direct sunlight. The result was an advocacy of east or west orientation for classrooms, sometimes modified to allow southeast or southwest exposure.

In spite of all these precautions, or perhaps because of them, unilaterally lighted classrooms are almost always deficient in light near the inside wall of the room. Except upon very bright days the usual classrooms arranged in this fashion provide not more than five or six footcandles of light upon a desk surface on the inside row.

Because of this deficiency of natural light, much recourse had to be made to artificial light and it was generally prescribed that there should be two rows of incandescent lights with preferably three fixtures per row for the so-called standard classroom. It was also required that each row be independently switched so that it would be possible to turn on the lights along the inside row to supplement the small amount of natural light being thrown across the room.

Since the windows in these relatively dark rooms provided as great brightness contrast as compared with other wall areas, it was necessary to have much manipulation of window shades. To provide as much flexibility as possible, center-hung double shades became widely prevalent and it was prescribed that the banks of windows on the exterior walls would have very narrow piers so that there would be no dark spaces to contrast with the window areas on that side at least, and also to make it possible to have as large an area of fenestration as could be squeezed out of a single wall.

Several things have happened which have upset this prescribed standard situation. In the first place the educational program has been modified to involve many activities which are not of the sedentary type. Because of this modification, it has become general to have movable seating and other equipment and therefore the children are not all the time seated in fixed rows all facing in one direction. Along with this has come a new freedom of design on the part of the architects who have found it possible to design rooms with large areas of glass block or plain glass on more than one side of the room, so arranged in combination with color schemes of much higher reflection values that the brightness-contrast ratios for all room surfaces are relatively small.

This changing circumstance has brought an end to the so-called standard classroom arranged like the cells of an institution along the sides of a corridor as an unbreakable requirement. It is possible now to have many sizes and shapes of classrooms with a large variety of ways of introducing natural light. A rigidly fixed orientation is also no longer necessary.

What then are the essential conditions? In general they are as follows:

1. Intensity of Light - There must be sufficient natural light entering the room under all except the most unfavorable cloud conditions, and it must be so evenly distributed that there will be a sufficient intensity of light upon each working surface to enable the work to be carried on with convenience and ease. Nobody can say exactly how many foot-candles are necessary, but the trend of opinion has favored increasing intensities in recent years to the point where there is a fair agreement that at least thirty foot-candles of light are necessary on a desk top for reading, writing, and other similar activities.
2. Brightness-Contrast - Not only must there be sufficient light, but the light must be so reflected from surface to surface and thence to the eye that there will be no uncomfortable brightness-contrast between the task upon which the attention is focused and the rest of the visual environment. Good seeing conditions require high contrast within the limits of the task and relatively low contrast between the background of the task and other areas which border it.

Probably the best way to make this possible is to have a great deal of light coming into the room from more than one wall with direct sunlight cut off or diffused through glass blocks or by baffles and to have the ceiling and

upper walls so finished that they will reflect 85% or more of the light which strikes their surfaces but without pronounced glare from smooth and shining finishes. Over and beyond this, however, all of the furniture and equipment, floors, and lower wall surfaces should reflect substantial amounts of light even up to 45% or 50% reflection values.

- b. Light control devices should provide positive and flexible control of maximum available light, and should be durable, easily cleaned, and maintained.

Floors.--

- a. Should be quiet, attractive, safe, durable, in good condition, and easy to maintain.

Walls and ceilings.--

- a. Should be attractive, durable, safe, in good condition, easy to clean and maintain, and reflect light adequately without glare.

Doors.--

- a. Should open outward from classroom. Should be standard size, sturdy, easy to operate, positive latching. Should be fire-proof where necessary. Should have clear glass area and should not interfere with corridor traffic when open.

Color Scheme.--

- a. Should be harmonious, bright, attractive, and decorative in appearance, with paint in good condition. Should reflect light by diffusion, with no glare.

Chalkboards.--

- a. Should have smooth, even, non-reflective surface which takes chalk well and is easy to clean. Supplementary criteria follow:

To assist in reducing brightness-contrast various materials are being tried out for chalkboards which make it unnecessary to have black areas around the walls. A number of light-colored composition boards can be used with dark crayon or dark chalk. Colored glass and special green paint on slate or other suitable surfaces are also being tried, and the best results seem to be reported from the use of white and yellow chalk on these green surfaces. On very light boards, dark-colored chalk would give the best contrast within the area of the task, but the colored chalk is unpopular because it is so messy.

- b. Should be of suitable (non-excessive) area for required educational function, and of proper height and location.

Tackboards.--

- a. Should be of suitable area for required educational function, and properly located in accordance with use of room.

Closets and Cases.--

- a. Should provide ease and adequacy of storage for books, supplies, teaching equipment and pupils' project materials.

Cloakrooms and lockers.--

- a. Should provide adequate, accessible, well-ventilated and easily supervised facilities for storage of clothing. Corridor lockers, in general, are preferable to classroom wardrobes except possibly for very young children.
- b. Should be well-constructed, easily operated, in good condition, and easily maintained.

Type of equipment.--

- a. Should have suitably designed movable desk and chair units, or tables and chairs, with ample teaching equipment of all kinds. All equipment must be in good condition.

Special Classrooms

Shops.--

- a. Should be sufficient in number, size, and equipment to meet needs of educational program.
- b. Should be suitably located for efficient use and should be clean, attractive, safe, and well kept. Fire-resistant construction should be used where necessary.

Science and home economics laboratories.--

- a. Should be sufficient in number, size, and equipment to meet needs of educational program.
- b. Should be suitably located for efficient use and should be clean, attractive, safe, and well-kept.

Kindergarten.--

- a. Should be properly designed and equipped for function. Supplementary criteria follow:

The kindergarten is the place where many children begin their public school experience. It should be designed to make this beginning as pleasant as possible. The kindergarten suite should be so located that it is suitably isolated from the rest of the building, on the ground floor, and with its own exits. The main room should have a large amount of natural

light, preferably on three sides. The color scheme should be light and attractive. The floor finish material and floor temperature should be such that children can play with comfort and safety. A fireplace adds to the attractiveness of the room but should not be installed at a sacrifice of other more needed facilities.

The kindergarten suite should have its own toilets and wash facilities with fixtures of suitable size. It should have direct access to a separate play yard, where the children can romp and play with complete safety. The room and play yard should have sunny exposure. The kindergarten room should be sufficiently large, at least 1200 square feet for a kindergarten of 25 pupils. There should be a conveniently located storage for clothing, and a storeroom of adequate size for toys, easels, blocks, pads, and other equipment. The kindergarten should have ample built-in storage specifically designed for needs, including cubicles for work materials in current use, book shelving, and cupboards. There should be work counters and work benches, preferably movable, aquariums, terrariums, animal cages, piano, library table, etc. There should be a large amount of tackboard.

- b. Should be light, clean, attractive, suitably located, and in good condition.

Other special rooms - art, music, speech, commercial, visual education, remedial instruction, instruction for physically handicapped, general purpose room, etc.--

- a. Should be sufficient in number, size, and equipment to meet needs of educational program.
- b. Should be suitably located for efficient use and should be clean, attractive, safe, and well-kept.

APPENDIX G

CRITERIA FOR EVALUATING SPECIAL ROOMS ¹

Special Rooms for Pupil Activities

Gymnasium suites.--

- a. Should be fully adequate in size and number for physical education and play activities of all pupils in terms of well-developed program.
- b. Should have suitable floor, proper wall finish, adequate spectator seating, be well equipped, and have ample space for storage, offices and special rooms as needed.
- c. Should be conveniently located, zoned for separate heating, easily reached by the public, and capable of being cut off from the rest of the building.
- d. Should have clean, sanitary shower and locker rooms to accommodate maximum load in approved fashion. Should have adequate, well-lighted and well-ventilated locker system.

Library suite.--

- a. Should provide quiet, adequate, light, easily accessible, attractive, properly furnished reading room with suitable book storage.
- b. Should have adequate office and work-room facilities, special library equipment, and conference rooms to fulfill complete library function.

Auditorium and auxiliaries.--

- a. Should be properly located and provide ample seating with adequate ventilation, acoustics, and safety provisions.
- b. Should have ample stage and dressing rooms, storage and proper equipment for lighting and scenery. Stage and dressing rooms should be accessible to the rest of the building without passing through auditorium space.
- c. When designed for public use, suitable ticket offices, cloakrooms, and toilets should be provided, and heating and ventilating should be zoned separately from rest of school plant. Should have separate entrance and be capable of being closed off from the rest of the building.

Special Service Rooms

Custodians' rooms.--

- a. Should provide ample storage and work space with lockers, toilets, and showers, near but separate from boiler room.
- b. Should provide sufficient spaces for sinks and storage of utensils on each floor.

¹ Ralph D. McLeary, Guide for Evaluating School Buildings, pp. 31-37. Cambridge: New England School Development Council, 1949. Pp. ii / 52.

Storage rooms.--

- a. Should provide ample storage, conveniently located for books, instructional supplies, equipment for whole school and for each department.

Cafeteria.--

- a. Should provide facilities for efficient feeding of school population in suitable number of shifts without congestion or confusion.
- b. Should be clean, light, attractive, and subject to easy maintenance. Kitchen and serving equipment should be ample, modern, sanitary, efficient and well-kept.
- c. Kitchen and dining room should be properly located in relation to pupil traffic and outside access, acoustically treated, and equipped with fool-proof method of sterilizing dishes and utensils.

Teachers' rooms.--

- a. Should provide ample places for seclusion, work, and rest, conveniently located, well lighted, comfortably and attractively furnished, and with toilet and wash facilities.

Other special rooms (health suites, dental clinics, garages for school buses, etc.).--

- a. Should be provided and furnished as needed to fulfill necessary function, properly designed, located and equipped.

Administrative Rooms

Principal's office suite.--

- a. Should be conveniently located, adequate in size, suitably equipped and furnished, attractive and dignified in appearance.
- b. Should have whatever auxiliary rooms conditions require, such as, secretary's room, toilet facilities, adequate waiting space for pupils and parents, conference room, space for storage of records and school vault.

Guidance and other offices.--

- a. Ample provision should be made for counsellors, department heads, deans, and other specialized personnel.
- b. Should be adequate in size, conveniently located, suitably furnished, and with any additional space required, such as, testing and conference rooms, storage of records, and space for machine equipment.