

1949

A survey of the School Housing Needs in Ellensburg, Washington

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Central Washington University

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A SURVEY OF THE SCHOOL HOUSING
NEEDS IN ELLENSBURG,
WASHINGTON

by

Dike A. Willoughby



157

A project submitted in partial fulfillment of the requirements for the degree
of Master of Education, in the Graduate School of the
Central Washington College of Education

December, 1949



Home Economics Classroom
Morgan Junior High School

This project is a partial requirement of Education 222, which is a partial requirement for the Master of Education degree at the Central Washington College of Education.

Approved:

Charles Saale, CHAIRMAN (Class Instructor)

D. Thompson

L. Burnett

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Chapter I

INTRODUCTION

"The modern school will more truly be the educational center of the community; it will lend itself to the activities of children, of youth, and of adults; and it will be adaptable to educational progress. The colorless and uninviting classrooms of yesterday and today will be supplanted by spacious, adequately lighted, properly heated and ventilated, attractive, cheerful rooms." (2:12)

"Most school plants, old or new, are entirely inadequate to meet the demands of an educational program that recognizes child behavior and growth. Many school buildings are characterized by drabness, dreariness, staleness, crooked maps, and dusty pictures of George Washington. One does not feel that pulsing life has any part in them." (1:28)

The physical plant of a school is something vastly more important than mere shelter from the elements. It is the concrete expression of the extent to which the adult population of a state or a community has accepted the responsibility of providing the oncoming generation with the amount and kind of education and training that they will require to live effectively in the age in which they are born to live, namely, the age of science and the interdependence of all mankind. (9:134)

School buildings and grounds, further express the extent to which the adult public has accepted the responsibility of seeking to keep intact and to provide for an improvement in health, emotional stability, the physical well being, and the social adjustment of their

children and youth as they grow into young men and young women.

School buildings are also a measure of the concern of parents for the preservation of the very lives of their children against fire, earthquakes and other forms of disasters. We compel our children to attend school by statute and it seems good common sense that the buildings that house these boys and girls must be safe, sanitary, and have a healthy environment, if they are to become better fitted for life than their parents.

The school plant is a concrete, objective expression of the educational and social philosophy of the community in which it stands. An alert, informed observer with a pass key walking around and through empty school buildings on a Saturday morning can get a more complete and reliable picture of the educational philosophy of the professional staff, the board of education, and the community in a few hours than he could by days of searching through records, reports, bulletins, and publications. (9:134)

"If classrooms are to be learning laboratories they should be designed for children rather than to impress adults or to make it easier to handle large groups of pupils. Schools can be made homelike. Pieces of incidental furniture can add much atmosphere to a school room." (3:2)

The citizens of every community wish their own children to receive the best type of educational opportunity that is possible for them to receive. But the citizens of a community cannot always know what constitutes a desirable school offering. Not only did these citizens pass through the public school system when the problems to be faced were comparatively simple, but, what is more important, most of them have never considered what the public school system should attempt to do or why, or the space provisions that are necessary to carry out the purposes of the school. (2:11)

Discussion of the problem. The improvement of school environment presents a different problem in each school. The problem facing the Ellensburg School District is one of providing more and better school housing. The purpose of this survey is to find out the condition of the present buildings, to make recommendations for improvements and alterations to the existing structures, to point out the needs for future building expansion. This survey is based on the results of an actual school census undertaken during November of this year.

History of Ellensburg's school building program. For many years the Ellensburg Public Schools operated under the handicap of a long-term debt, without a plan for the amortization of this debt. The funds for the construction of the old Washington School, built in 1890, were obtained by the sale of non-callable bonds in the sum of \$40,000, bearing interest at a rate of five percent.

In 1910 these bonds were refunded for another twenty years at the same interest rate. Except for a few of these bonds, sold to the district by willing holders, these bonds were finally paid off in 1930. Thus, because of the high interest rate, and of the non-callable feature of the bonds, the old Washington building actually cost three times the original cost of construction.

Meanwhile, the building had burned in 1925 after 35 years service. It had housed Ellensburg's grade and high school; and, for a brief time, it was the home of the State Normal School, now the Central Washington College of Education. Some years later, the

Lincoln Grade School was built in West Ellensburg. Because of drainage problems and small attendance, it was finally decided to discontinue this school and to dispose of the property. A two-room portable building had also been built. This building has served consecutively as grade school classrooms, as junior high school classrooms, a manual arts shop, and at the present time it is the music building. In none of these capacities has this building served well. Poorly conceived buildings and poor financing bring in their wake disappointment and disillusionment.

Ellensburg's growth had always been steady. In 1912 the time had come when the citizens of this community again demonstrated their belief in education and in the future of the community by the flotation of a \$90,000 serial bond issue for the erection of a high school. The last of these bonds was paid in 1932. The high school building has served well thousands of students.

In spite of the erection of the high school, the portable, and the new Washington School, the district's growing pains became so acute in 1927 that it became necessary to ask the State Normal School for the temporary use of the third floor of the Edison School (now the College Music Building) for the departmentalized seventh and eighth grades of the city schools.

In 1929 a serial bond issue for \$144,000 for the erection of a new junior high school was floated. This amount was inadequate even for the construction of the first unit which included only the

heating plant, thirteen classrooms, and auditorium. The lighting fixtures, linoleum, all equipment, and the architect's fees had to be paid for from the general fund. However, the district did get a well constructed building which should give good service for many years to come. The last of this bond issue will be paid off in 1949.

Although the junior high school was well constructed, it was not large enough. It was necessary to continue to use the old buildings on the site just north of the junior high school building for shops. Moreover, there was no gymnasium, no art room, no laboratory for general science, no cafeteria, and no home economics rooms. Patience could be the only answer to the schools serious needs.

When Civil Works Administration came into being, the district immediately organized a project for the development of the playfield acquired at the time of the building of the junior high school. After the removal of the houses on the playfield, the high school Associated Student Body furnished the money for the labor costs in installing two cement runways at the bed of the creek for carrying off the creek water. The tiles had been bought by the school district. The City of Ellensburg furnished a surveyor and a foreman for the installation. The County and the Ellensburg Telephone Company furnished trucks for the hauling of soil which was donated by The Milwaukee Railroad. Mrs. Frank Hartman donated the seed for the lawn. Thus, the development of the Morgan playfield was the result of fine cooperation among individuals, corporations,

county, city, school district, state and federal governments.

When the serious unemployment problem resulted in the formation of the Works Progress Administration and the Public Works Administration, the Ellensburg School District promptly applied for funds for the building of shops, gymnasium, and an addition to the junior high school. The project was promptly approved, but funds were withheld on the grounds of lack of need to take up unemployment slack as other projects were opened up in this area. Finally, tiring of waiting for the allocation of funds and gradually working toward a more advantageous financial position, the school board decided to go on their own and successfully floated a bond issue for \$80,000. This, with the cash on hand, approximately the same amount, was sufficient to build and equip the shops, gymnasium, home economics, art department, general science laboratory, and five large classrooms. This was in 1937. These bonds are being paid off with the ten mills allowed schools under the forty mill limit law.

Then came the time when greatly increased enrollment again made it imperative that Ellensburg School District 401 provide additional facilities for her children. Moreover, 325 children were housed in buildings outside of the Washington School, 258 of these at the Morgan Junior High School, and 67 at the Music Building at Central Washington College of Education.

This arrangement presented many handicaps to the school program. They were removed from visual aids, proper playground facilities,

library facilities, and other advantages too numerous to mention. In addition to this fact, enrollments in the classrooms at the Washington School were too large. Classrooms at the Morgan Junior High School were needed for junior high pupils. Rooms at the College are always needed for the young men and young women of that institution. The only satisfactory answer was a new elementary school building.

In this community, music holds a prominent place in the cultural life of the people. This is manifested by community support of the Community Concert Association, by the activities of music clubs, by the participation in music by adults in church and other organizations. There is little doubt but that music here is appreciated far more than in the ordinary community. When school improvements were thought over shortly after the arrival of V-J Day, many organizations sent letters to the school board and the superintendent urging additional facilities for music. Likewise, the Ellensburg community is unique in having many strong organizations of its farmers. There is much genuine leadership in farm groups here. It is only natural, therefore, that many farmers living in District 401, (incidentally a great many outside as well), desire increased facilities for farm shop and adult agriculture work as well. One-half of the assessed valuation of this district lies outside the incorporated limits of Ellensburg, and the matter of increased farm shop facilities would be given favorable consideration at the earliest

opportunity.

The people in this community had an opportunity to express themselves on these matters at the polls. The bond issue for \$295,000 would not take care of all the school's needs, therefore matching funds were sought at once from state and federal sources. This bond issue was not burdensome. It was designed to run for a fifteen year period. The millage required was not excessive, but it was outside of the legal ten mills allowed school districts under the forty mill limit law. This was made necessary because increased operational costs were likely to require the full ten mill levy for the operation of the school, and the payment of the bonds for the additions to the Morgan Junior High School. There will no longer be a levy for the Washington School. The original bonds for the Morgan Junior High School have been liquidated.

The new Lincoln school that was completed and occupied in November, 1949, is a building which contains many modern features.

Type of community. Ellensburg is in the heart of an irrigated farming area in the Kittitas Valley. Most of the activity of the community depends upon the surrounding farming area.

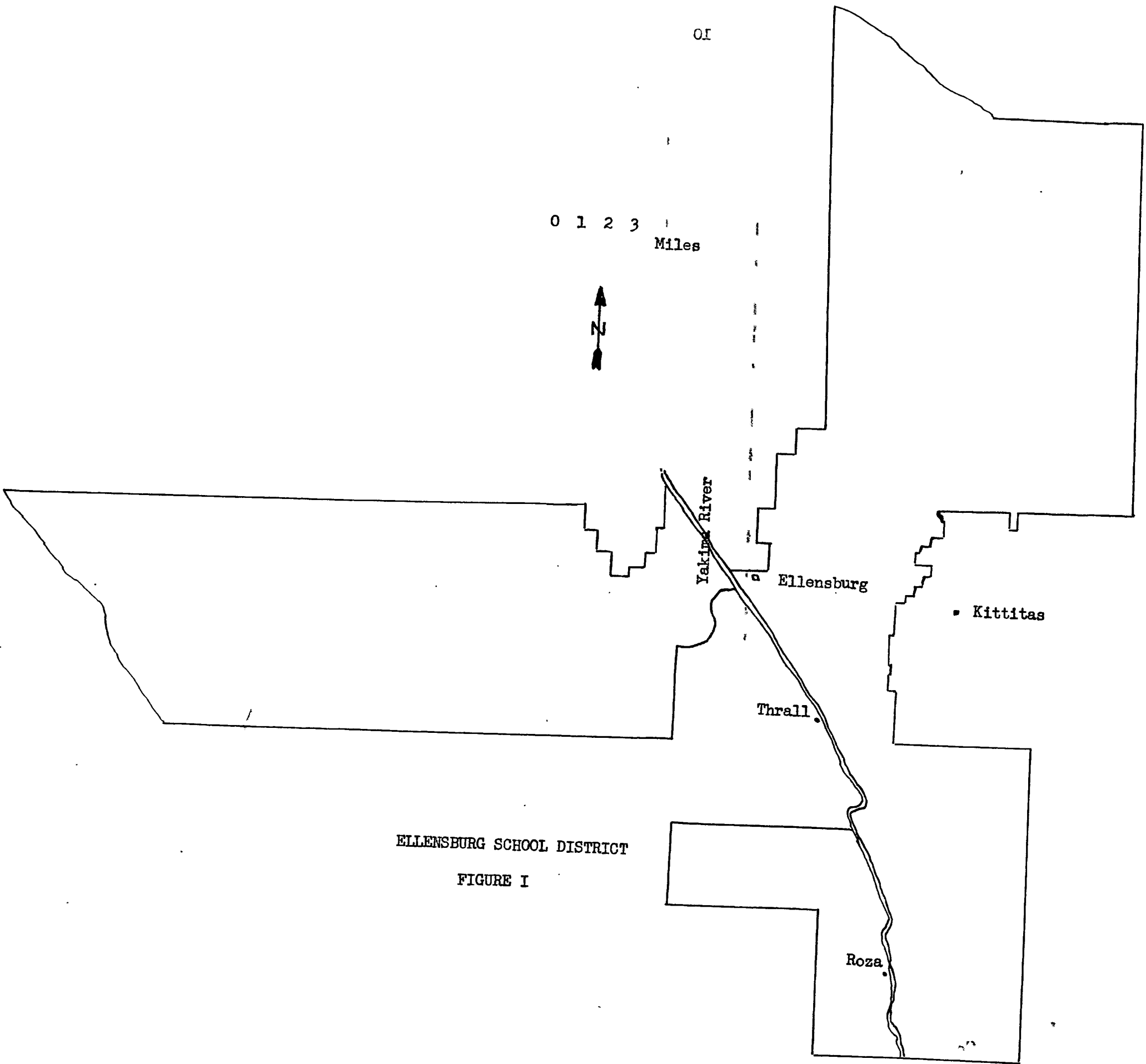
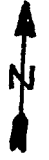
The Central Washington College of Education is located in Ellensburg and this is a leading factor in helping the people of the community to become more educationally minded than in other school communities of similar size.

On the the following pages, in a way of introduction to the

problems that involve the Ellensburg School District, will be found a map of the Ellensburg School District and three graphs showing the total public school enrollment, present enrollment by grades and the Lourdes Academy enrollment.

01

0 1 2 3
Miles



ELLENSBURG SCHOOL DISTRICT

FIGURE I

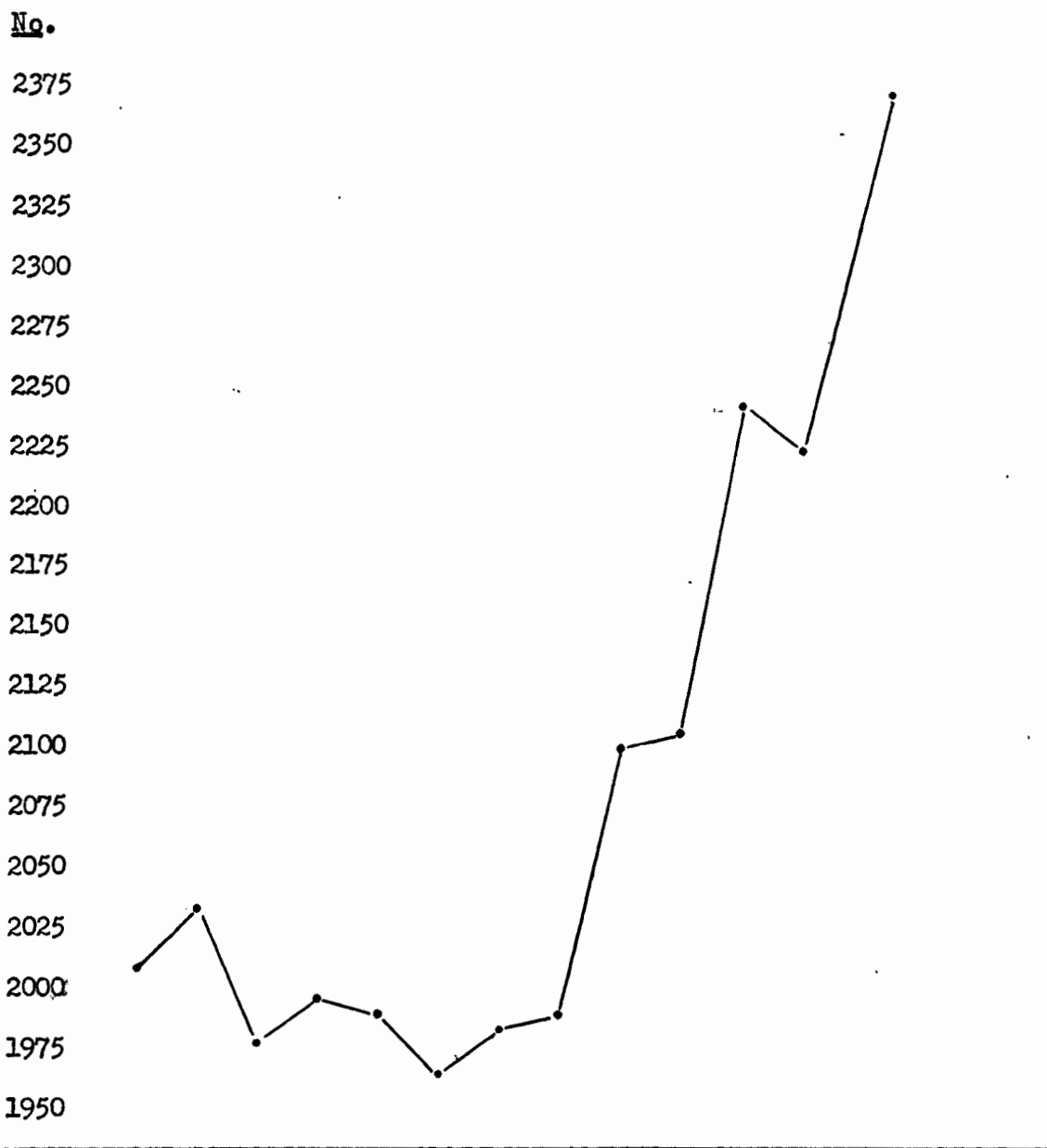
GRAPH I

TOTAL PUBLIC SCHOOL ENROLLMENT

No.

2375
2350
2325
2300
2275
2250
2225
2200
2175
2150
2125
2100
2075
2050
2025
2000
1975
1950

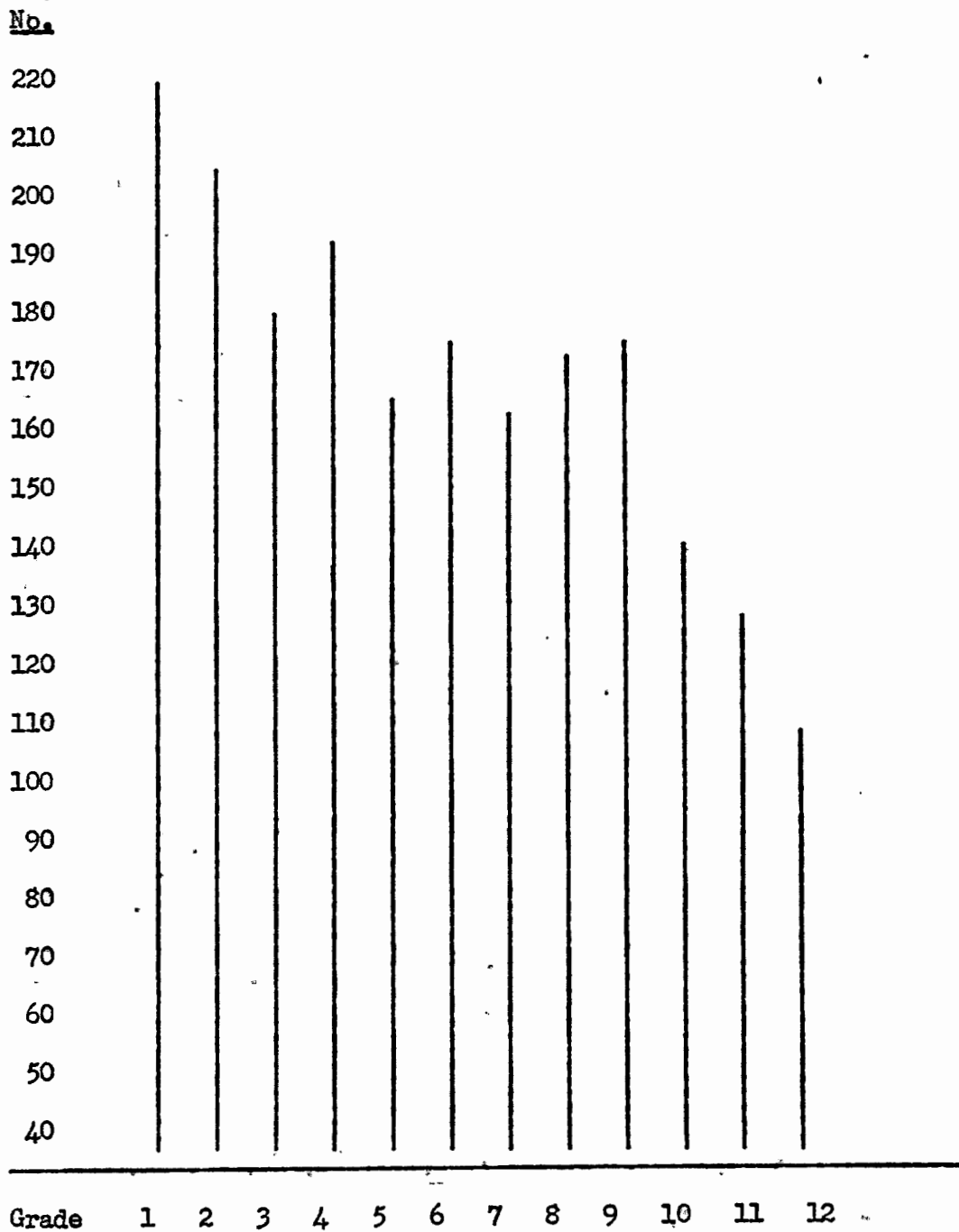
1937-38
1938-39
1939-40
1940-41
1941-42
1942-43
1943-44
1944-45
1945-46
1946-47
1947-48
1948-49
1949-50
Estimate



GRAPH II

PRESENT ENROLLMENT BY GRADES

November 1, 1949



GRAPH III

LOURDES ACADEMY ENROLLMENTNo.

156

154

152

150

148

146

144

142

140

138

136

134

132

130

128

1939-40

1940-41

1941-42

1942-43

1943-44

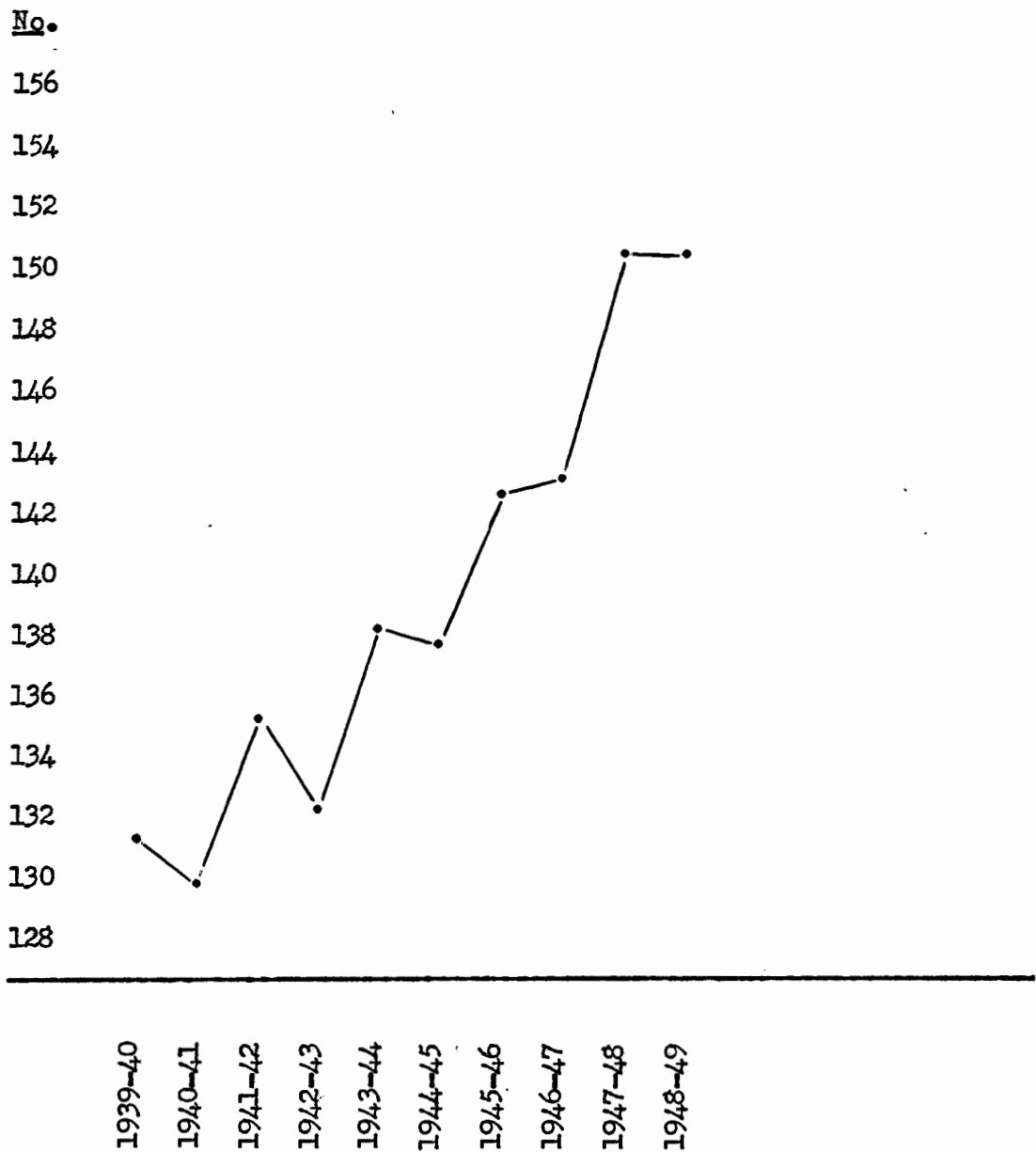
1944-45

1945-46

1946-47

1947-48

1948-49



Chapter II

EVALUATION OF PRESENT BUILDINGS

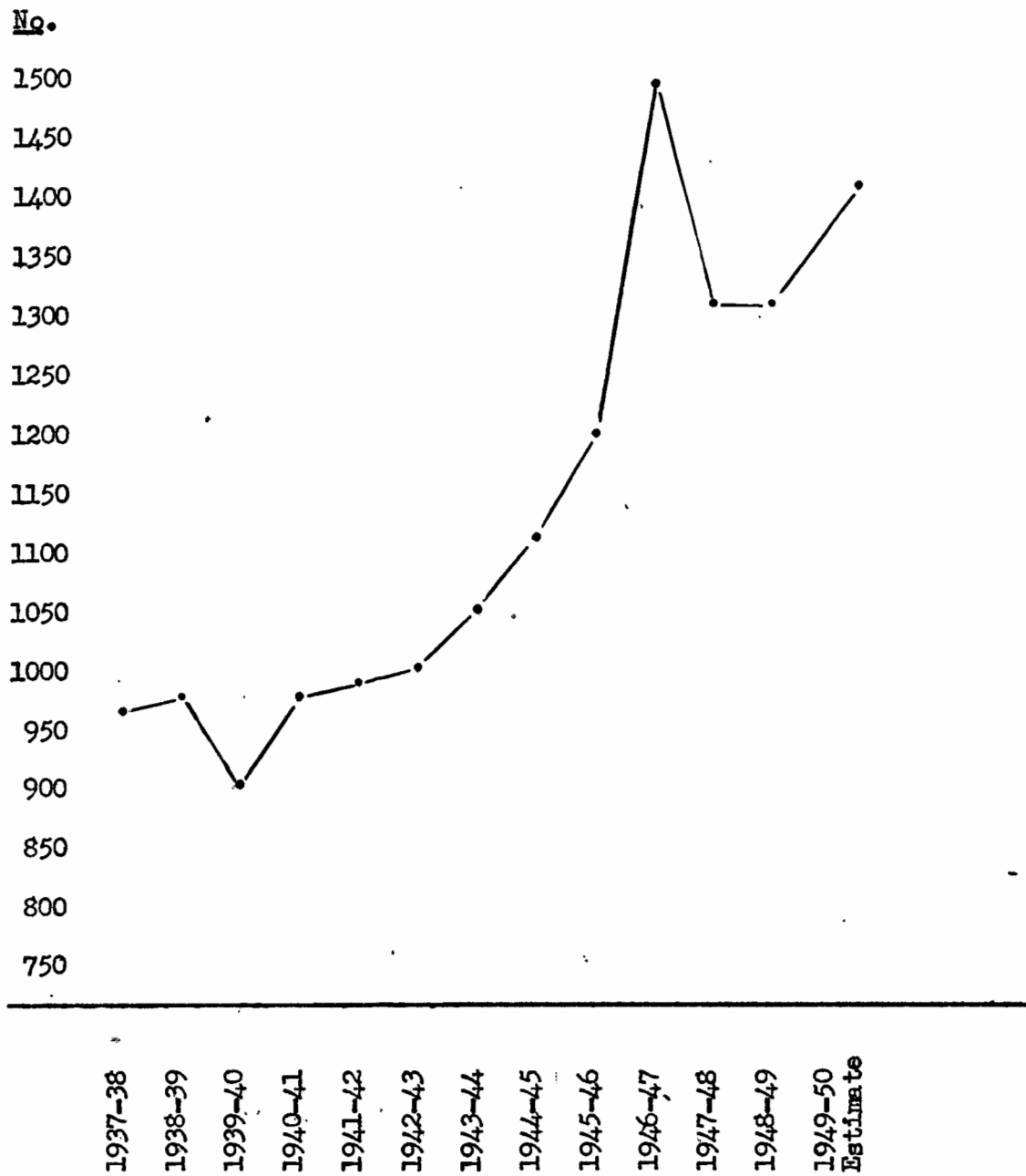
Use of score cards. The elementary school and the high school buildings of the Ellensburg School District were evaluated by the writer, Mr. Angelo Giandrone, Superintendent of the Ellensburg Public Schools, and members of the local P.T.A. by the use of the Strayer-Engelhardt and the Holy-Arnold score cards. These score cards were published in 1933 and 1936 respectively, and therefore in comparison to 1949 standards they are extremely conservative in many respects. Much progress has been accomplished since before the start of World War II.

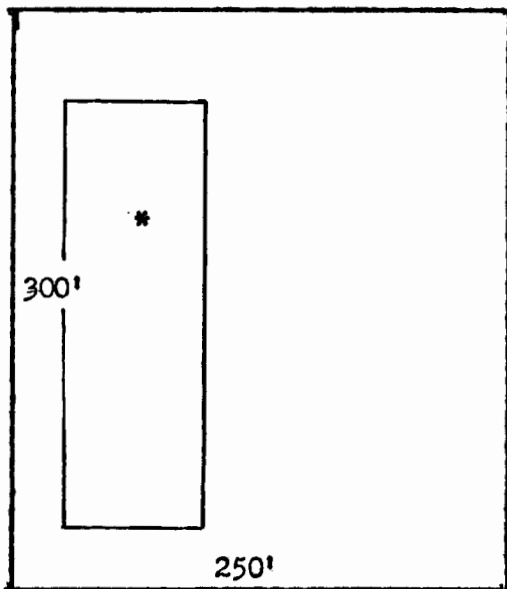
The Strayer-Engelhardt score card was designed for elementary school buildings and the Holy-Arnold score card was designed for scoring junior and senior high school buildings. These score cards are based on 1000 points representing an ideal or perfect building. Any building rating over 900 would be considered nearly perfect. Buildings that score between 800 and 900 points are generally quite satisfactory and require very little in the way of alterations to make them effective. Buildings that score between 400 and 700 points are considered inferior or lack many of the essentials for a good school program. Buildings that score in this range generally justify the expenditure of funds in order to make them reasonably effective.

Buildings that score less than 400 points should generally be abandoned. Most buildings that are forty or fifty years old fit in this category. They are generally so obsolete that no large expenditure of public monies should be made on them. The building ratings are dependent upon subjective judgment even though certain standards are set up by the authors, therefore a degree of error is possible but when one considers that the standards were set up in the middle thirties it is hardly probable that the buildings were rated too severely.

On the following pages appear consecutively the summary of elementary and secondary school building ratings followed by the actual item by item scoring. The last part of this chapter is devoted to the scoring of the elementary and secondary school buildings by the use of the Moehlman score card. (6:274-30 A.)

GRAPH IV

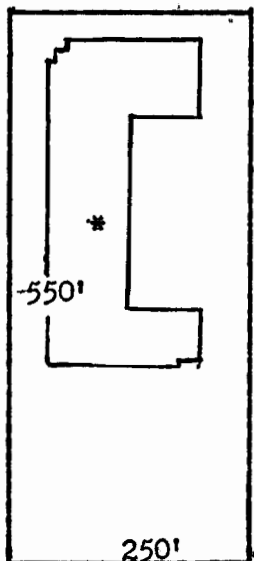
ELEMENTARY SCHOOL ENROLLMENT



WASHINGTON ELEMENTARY SCHOOL*

FIGURE II

| | | |
|----------------------------|-------|---|
| *SITE | ----- | 1.72 ACRES |
| LOCATION | ----- | NEAR CITY CENTER |
| DATE OF CONSTRUCTION | ----- | 1925 |
| COST OF CONSTRUCTION | ----- | \$120,000.00 |
| TYPE OF CONSTRUCTION | ----- | BRICK |
| SQUARE FEET OF FLOOR SPACE | ----- | 32,000 |
| NUMBER OF STORIES | ----- | TWO |
| NUMBER OF CLASSROOMS | ----- | TWELVE |
| AUXILIARY SPACE | ----- | OFFICE, PLAYROOM, LIBRARY, NURSE'S ROOM KINDERGARTEN, TEACHER'S ROOM |



LINCOLN ELEMENTARY SCHOOL*

FIGURE III

| | | |
|----------------------------|-------|--|
| *SITE | ----- | 3.11 ACRES |
| LOCATION | ----- | SOUTH SIDE OF CITY |
| DATE OF CONSTRUCTION | ----- | 1949 |
| COST OF CONSTRUCTION | ----- | \$750,000.00 |
| TYPE OF CONSTRUCTION | ----- | BRICK |
| SQUARE FEET OF FLOOR SPACE | ----- | 50,650 |
| NUMBER OF STORIES | ----- | TWO |
| NUMBER OF CLASSROOMS | ----- | FOURTEEN |
| AUXILIARY SPACE | ----- | GYM, LUNCHROOM, TEACHER'S ROOM, CLINIC, OFFICE, KINDERGARTEN, LIBRARY, ACTIVITY ROOM |



Classroom
Lincoln Elementary School

TABLE I

SUMMARY OF
ELEMENTARY SCHOOL BUILDING RATINGS

| Name of School | Total Score | Site | Building | Service System | Class-rooms | Special Classrooms | General Service Rooms | Administration Rooms |
|-----------------------|-------------|------|----------|----------------|-------------|--------------------|-----------------------|----------------------|
| Total Possible Points | 1000 | 100 | 160 | 225 | 205 | 125 | 125 | 60 |
| Washington | 637 | 58 | 123 | 153 | 179 | 66 | 39 | 19 |
| Lincoln | 769 | 57 | 141 | 190 | 205 | 75 | 61 | 40 |

A copy of the rating sheet is included on the pages to follow so the comments on ratings will be more easily understood

TABLE II

Strayer-Engelhardt Score Card for Elementary
School Buildings. (8:7)

| | <u>Possible Points</u> | <u>Rating For</u> | |
|-------------------------------------|----------------------------|-------------------|----------------|
| | | <u>Washington</u> | <u>Lincoln</u> |
| 1. SITE | 100 | 58 | 57 |
| A. Selection | 15 | 10 | 10 |
| B. Location | 30 | 23 | 26 |
| 1. Determination | 10 | 8 | 8 |
| 2. Accessibility | 10 | 5 | 10 |
| 3. Environment | 10 | 10 | 8 |
| C. Topography | 20 | 14 | 10 |
| 1. Elevation | 5 | 3 | 3 |
| 2. Soil and Subsoil | 5 | 5 | 5 |
| 3. Natural Features | 5 | 3 | 2 |
| 4. Landscaping and Upkeep | 5 | 3 | 0 |
| D. Provisions for Use | 35 | 11 | 11 |
| 1. Size and Form | 15 | 7 | 7 |
| 2. Roads, Approaches and Parking | 5 | 3 | 3 |
| 3. Play Courts and Play Fields | 10 | 1 | 1 |
| 4. School Gardens | 5 | 0 | 0 |
| II. BUILDING | 160 | 123 | 141 |
| A. Placement | 20 | 17 | 15 |

| | <u>Possible Points</u> | <u>Rating For Washington</u> | <u>Rating For Lincoln</u> |
|------------------------------|----------------------------|----------------------------------|-------------------------------|
| 1. Position on Site | 10 | 10 | 10 |
| 2. Orientation | 10 | 7 | 5 |
| B. Gross Structure | <u>90</u> | <u>73</u> | <u>88</u> |
| 1. Style of Architecture | 5 | 4 | 5 |
| 2. Plan Type | 10 | 7 | 10 |
| 3. Construction Types | 10 | 7 | 10 |
| 4. Height | 5 | 5 | 5 |
| 5. Foundations | 10 | 10 | 10 |
| 6. Walls | 10 | 10 | 10 |
| 7. Roof | 5 | 5 | 5 |
| 8. Entrances | 5 | 4 | 5 |
| 9. Fenestration | 5 | 3 | 5 |
| 10. Utilization | 10 | 10 | 8 |
| 11. Aesthetic Balance | 5 | 4 | 5 |
| 12. Acoustics | 5 | 1 | 5 |
| 13. Condition | 5 | 3 | 5 |
| C. Internal Structure | <u>50</u> | <u>33</u> | <u>38</u> |
| 1. Corridors | 15 | 7 | 12 |
| 2. Stairways and Ramps | 15 | 11 | 11 |
| 3. Color Scheme | 10 | 10 | 10 |
| 4. Basement | 5 | 0 | 0 |
| 5. Roof Space | 5 | 5 | 5 |

| | Possible Points | Rating For Washington | Rating For Lincoln |
|----------------------------------|--------------------|--------------------------|-----------------------|
| III. SERVICE SYSTEMS | 225 | 153 | 190 |
| A. Heating and Ventilating | 50 | 25 | 48 |
| 1. Kind | 15 | 15 | 15 |
| 2. Installation | 10 | 10 | 10 |
| 3. Air Supply | 5 | 0 | 5 |
| 4. Fans and Motors | 5 | 0 | 5 |
| 5. Distribution | 5 | 0 | 5 |
| 6. Temperature Control | 5 | 0 | 3 |
| 7. Special Provisions | 5 | 0 | 5 |
| B. Fire Protection System | 30 | 28 | 29 |
| 1. Fire Resistance | 15 | 13 | 14 |
| 2. Exits and Fire Escapes | 5 | 5 | 5 |
| 3. Apparatus | 3 | 3 | 3 |
| 4. Electric Wiring | 2 | 2 | 2 |
| 5. Fire Doors and Partitions | 3 | 3 | 3 |
| 6. Exit Lights and Signs | 2 | 2 | 2 |
| C. Cleaning System | 15 | 14 | 14 |
| 1. Kind | 5 | 4 | 4 |
| 2. Installation | 5 | 5 | 5 |
| 3. Efficiency | 5 | 5 | 5 |
| D. Artificial Lighting System | 20 | 18 | 20 |
| 1. Electric Lighting | 5 | 4 | 5 |
| 2. Light Sources and Intensities | 3 | 3 | 3 |

| | <u>Possible Points</u> | <u>Rating For</u> | |
|------------------------------------|----------------------------|-------------------|----------------|
| | | <u>Washington</u> | <u>Lincoln</u> |
| 3. Switches and Switchboards | 3 | 3 | 3 |
| 4. Outlets and Adjustments | 3 | 3 | 3 |
| 5. Method of Illumination | 3 | 3 | 3 |
| 6. Maintenance and Inspection | 3 | 2 | 3 |
| E. Electric Service System | 10 | 10 | 10 |
| 1. Clocks | 3 | 3 | 3 |
| 2. Telephones | 2 | 2 | 2 |
| 3. Fire Alarm System | 2 | 2 | 2 |
| 4. Call System | 2 | 2 | 2 |
| 5. Electric Power Supply | 1 | 1 | 1 |
| F. Electrical Teaching Aids | 10 | 5 | 5 |
| 1. Audio-Visual Equipment | 5 | 5 | 5 |
| 2. Radio Equipment | 5 | 0 | 0 |
| G. Water Supply System | 20 | 15 | 18 |
| 1. Drinking Fountains | 5 | 5 | 5 |
| 2. Lavatories | 5 | 5 | 5 |
| 3. Sinks | 5 | 5 | 5 |
| 4. Bathing Facilities | 5 | 0 | 3 |
| H. Toilet System | 30 | 27 | 29 |
| 1. Distribution and Arrangement | 5 | 5 | 5 |
| 2. Fixtures | 5 | 4 | 5 |
| 3. Adequacy | 5 | 5 | 5 |

| | <u>Possible Points</u> | <u>Rating For Washington</u> | <u>Lincoln</u> |
|------------------------------------|----------------------------|----------------------------------|----------------|
| 4. Seclusion | 5 | 5 | 5 |
| 5. Sanitation | 5 | 3 | 4 |
| 6. Supplies | 5 | 5 | 5 |
| I. Mechanical Service Systems | <u>3</u> | <u>0</u> | <u>1</u> |
| J. Locker Service | <u>15</u> | <u>2</u> | <u>2</u> |
| 1. Home Lockers | 5 | 0 | 0 |
| 2. Gymnasium Lockers | 5 | 0 | 0 |
| 3. Lockers for Special Classrooms | 3 | 0 | 0 |
| 4. For Teachers and Staff Workers | 2 | 2 | 2 |
| K. Laundry Service | <u>2</u> | <u>0</u> | <u>2</u> |
| L. Storage Service | <u>20</u> | <u>9</u> | <u>12</u> |
| 1. Custodial Storerooms | 1 | 1 | 1 |
| 2. School Supply Storage | 1 | 0 | 1 |
| 3. Educational Equipment Storage | 1 | 0 | 0 |
| 4. Book Storage | 1 | 1 | 1 |
| 5. Storage for Instructional Rooms | 2 | 2 | 2 |
| 6. Storage-Aural-Visual Materials | 1 | 0 | 0 |
| 7. Gymnasium Storage | 1 | 0 | 1 |
| 8. Auditorium Storage | 2 | 0 | 0 |
| 9. Receiving and Shipping Room | 1 | 0 | 1 |
| 10. Fuel Storage | 2 | 2 | 2 |
| 11. Custodian's Work Shop | 1 | 0 | 0 |

| | <u>Possible Points</u> | <u>Rating For Washington</u> | <u>Lincoln</u> |
|------------------------------------|----------------------------|----------------------------------|----------------|
| 12. Storage for Non-Teaching Staff | 1 | 1 | 1 |
| 13. Bicycle Storage | 2 | 1 | 1 |
| 14. Parking Space | 2 | 1 | 1 |
| 15. Out-of-Doors Service Storage | 1 | 0 | 0 |
| IV. GENERAL CLASSROOMS | <u>205</u> | <u>179</u> | <u>205</u> |
| A. Location | <u>35</u> | <u>30</u> | <u>35</u> |
| B. Construction and Finish | <u>90</u> | <u>84</u> | <u>90</u> |
| 1. Size and Utilization | 25 | 25 | 25 |
| 2. Sufficiency | 10 | 10 | 10 |
| 3. Floors | 10 | 10 | 10 |
| 4. Walls and Ceilings | 10 | 7 | 10 |
| 5. Doors | 5 | 5 | 5 |
| 6. Built-in Equipment | 10 | 8 | 10 |
| 7. Chalk Boards | 5 | 4 | 5 |
| 8. Bulletin Boards | 5 | 5 | 5 |
| 9. Color Scheme | 10 | 10 | 10 |
| C. Illumination | <u>40</u> | <u>40</u> | <u>40</u> |
| 1. Glass Area | 15 | 15 | 15 |
| 2. Windows | 15 | 15 | 15 |
| 3. Shades and Curtains | 10 | 10 | 10 |
| D. Movable Equipment | <u>40</u> | <u>35</u> | <u>40</u> |
| 1. Seats and Desks | 20 | 20 | 20 |

| | <u>Possible Points</u> | <u>Rating For Washington</u> | <u>Lincoln</u> |
|-----------------------------------|----------------------------|----------------------------------|----------------|
| 2. Teachers' Desks | 5 | 0 | 5 |
| 3. Other Equipment | 15 | 15 | 15 |
| V. KINDERGARTEN | <u>35</u> | <u>31</u> | <u>35</u> |
| 1. Location and Connection | 5 | 5 | 5 |
| 2. Size and Shape | 10 | 8 | 10 |
| 3. Construction and Finish | 5 | 3 | 5 |
| 4. Cloakroom and Toilets | 5 | 5 | 5 |
| 5. Illumination | 5 | 5 | 5 |
| 6. Equipment and Storage | 5 | 5 | 5 |
| VI. SPECIAL ACTIVITY ROOMS | <u>90</u> | <u>35</u> | <u>40</u> |
| A. Art Room | 10 | 0 | 0 |
| B. Home Economics Room | 10 | 0 | 0 |
| C. Industrial Arts Rooms | 10 | 0 | 0 |
| D. Library | 30 | 25 | 30 |
| E. Music Room | 10 | 0 | 0 |
| F. Science and Nature Study Rooms | 10 | 0 | 0 |
| G. Other Rooms | 10 | 10 | 10 |
| VII. GENERAL SERVICE ROOMS | <u>125</u> | <u>39</u> | <u>61</u> |
| A. Auditorium or Assembly Room | 50 | 28 | 0 |
| 1. Purpose | 5 | 3 | 0 |
| 2. Orientation and Purpose | 5 | 4 | 0 |
| 3. Size | 10 | 10 | 0 |

| | <u>Possible Points</u> | <u>Rating For</u> | |
|-----------------------------------|----------------------------|-------------------|----------------|
| | | <u>Washington</u> | <u>Lincoln</u> |
| 4. Construction and Finish | 5 | 3 | 0 |
| 5. Stage | 5 | 3 | 0 |
| 6. Stage Dressing Rooms | 3 | 0 | 0 |
| 7. Property Room | 2 | 0 | 0 |
| 8. Artificial Lighting | 4 | 1 | 0 |
| 9. Heating and Ventilating | 4 | 1 | 0 |
| 10. General Equipment | 4 | 0 | 0 |
| 11. Audio-Visual Equipment | 3 | 3 | 0 |
| B. Gymnasium | 25 | 0 | 23 |
| 1. Location | 5 | 0 | 5 |
| 2. Size | 10 | 0 | 10 |
| 3. Construction and Finish | 5 | 0 | 5 |
| 4. Gymnasium Service Rooms | 3 | 0 | 3 |
| 5. Seating Arrangements | 2 | 0 | 0 |
| C. Play Rooms or Shelters | 10 | 10 | 10 |
| D. Swimming Pool | 10 | 0 | 0 |
| E. Cafeteria or Lunch Room | 30 | 1 | 28 |
| 1. Location | 5 | 0 | 5 |
| 2. Size | 10 | 0 | 10 |
| 3. Construction and Finish | 5 | 0 | 5 |
| 4. Equipment | 3 | 0 | 3 |
| 5. Kitchen | 5 | 1 | 5 |

| | <u>Possible Points</u> | <u>Rating For Washington</u> | <u>Rating For Lincoln</u> |
|-----------------------------------|----------------------------|----------------------------------|-------------------------------|
| 6. Faculty Lunch Room | 2 | 0 | 0 |
| VIII. ADMINISTRATION ROOMS | <u>60</u> | <u>19</u> | <u>40</u> |
| A. Administration Offices | <u>25</u> | <u>19</u> | <u>40</u> |
| 1. Principal's Private Office | 5 | 5 | 5 |
| 2. Assistant Principal's Office | 5 | 0 | 0 |
| 3. General Office | 5 | 5 | 5 |
| 4. Reception Room | 2 | 0 | 2 |
| 5. Attendance Office | 3 | 0 | 0 |
| 6. Conference Room | 2 | 0 | 2 |
| 7. Other Administrative Offices | 3 | 0 | 3 |
| B. Teachers' Rooms | <u>10</u> | <u>4</u> | <u>7</u> |
| 1. Women's Rest Room | 7 | 4 | 7 |
| 2. Men's Retiring Rooms | 3 | 0 | 0 |
| C. Health Service Rooms | <u>15</u> | <u>4</u> | <u>11</u> |
| 1. Medical Clinic | 5 | 0 | 5 |
| 2. Nurse's Room | 4 | 4 | 4 |
| 3. Dental Clinic | 4 | 0 | 0 |
| 4. Other Health Service Rooms | 2 | 0 | 2 |
| D. Custodial Service Rooms | <u>10</u> | <u>1</u> | <u>5</u> |
| 1. Head Custodian's Office | 3 | 0 | 3 |
| 2. Engineer's Room | 3 | 0 | 0 |
| 3. Janitors | 2 | 1 | 2 |
| 4. Janitresses | 2 | 0 | 0 |

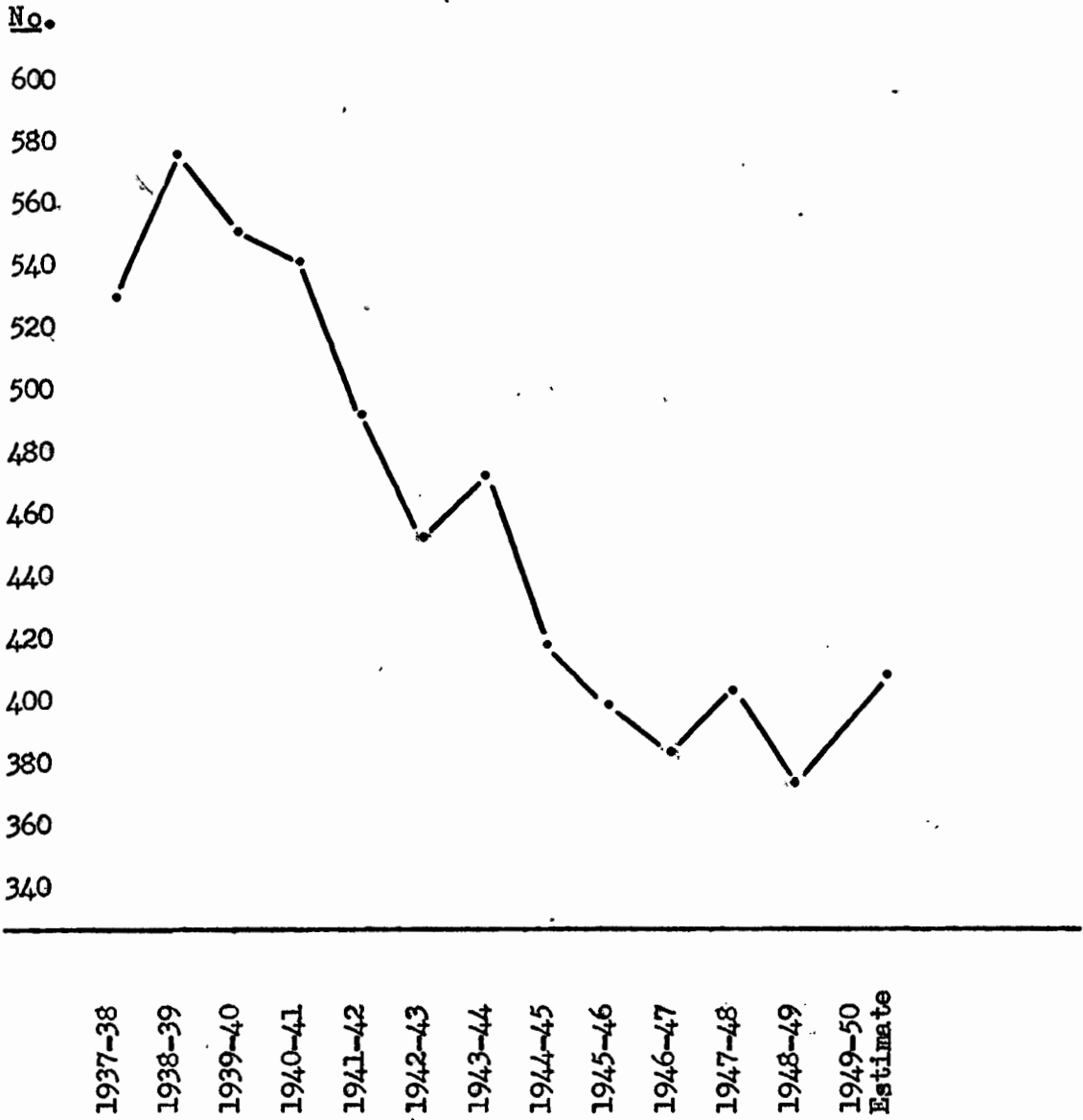


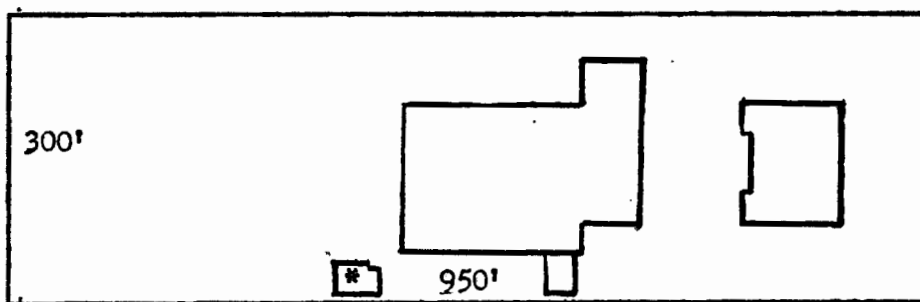
Classroom
Senior High School

GRAPH IV

JUNIOR HIGH SCHOOL ENROLLMENT

GRAPH V

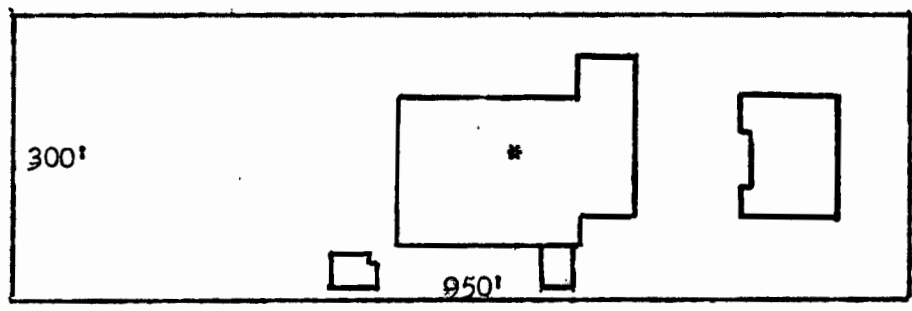
SENIOR HIGH SCHOOL ENROLLMENT



MUSIC CHAPEL*

FIGURE IV

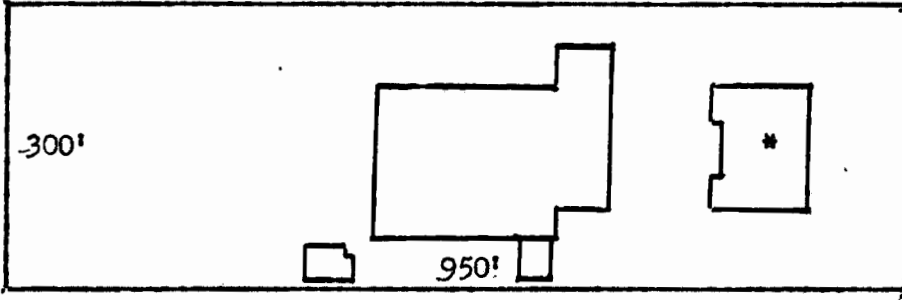
| | | |
|----------------------------|-------|--------------------|
| *SITE | ----- | 6.2 ACRES |
| LOCATION | ----- | SOUTH SIDE OF CITY |
| DATE OF CONSTRUCTION | ----- | 1919 |
| COST OF CONSTRUCTION | ----- | \$1500.00 |
| TYPE OF CONSTRUCTION | ----- | FRAME |
| SQUARE FEET OF FLOOR SPACE | ----- | 1700 |
| NUMBER OF STORIES | ----- | ONE |
| NUMBER OF CLASSROOMS | ----- | ONE |



JUNIOR HIGH SCHOOL*

FIGURE V

| | | |
|----------------------------|-------|--|
| *SITE | ----- | 6.2 ACRES |
| LOCATION | ----- | SOUTH SIDE OF CITY |
| DATE OF CONSTRUCTION | ----- | 1930 |
| COST OF CONSTRUCTION | ----- | \$210,000.00 |
| DATE OF ADDITION | ----- | 1937 |
| TYPE OF CONSTRUCTION | ----- | BRICK |
| SQUARE FEET OF FLOOR SPACE | ----- | 65,000 |
| NUMBER OF STORIES | ----- | THREE |
| NUMBER OF CLASSROOMS | ----- | TWENTY-ONE |
| AUXILARY SPACE | ----- | TWO SHOPS, ONE FARM SHOP, ONE GYM, ONE OFFICE, MUSIC ROOM, AUDITORIUM, ONE NURSE ROOM |



SENIOR HIGH SCHOOL*

FIGURE VI

| | | |
|----------------------------|-------|--|
| SITE | ----- | 6.2 ACRES |
| LOCATION | ----- | SOUTH SIDE OF CITY |
| DATE OF CONSTRUCTION | ----- | 1912 |
| COST OF CONSTRUCTION | ----- | \$60,000.00 |
| TYPE OF CONSTRUCTION | ----- | BRICK |
| SQUARE FEET OF FLOOR SPACE | ----- | 15,000 |
| NUMBER OF STORIES | ----- | TWO PLUS BASEMENT |
| NUMBER OF CLASSROOMS | ----- | FIFTEEN |
| AUXILIARY SPACE | --- | LIBRARY, STUDY HALL, CAFE, OFFICE SPACE FOR THE SUPERINTENDENT AND FOR THE PRINCIPAL, TEACHER'S LUNCH ROOM |



Classroom
Morgan Junior High School

TABLE III

SUMMARY OF

SECONDARY SCHOOL BUILDING RATINGS

| Name of School | Total Score | Site | Building | Academic Classrooms | Special Classrooms | General Service Rooms | Administrative Rooms | Service Systems |
|-----------------------|-------------|------|----------|---------------------|--------------------|-----------------------|----------------------|-----------------|
| Total Possible Points | 1000 | 120 | 158 | 167 | 171 | 153 | 92 | 139 |
| Morgan | 607 | 90 | 112 | 129 | 92 | 58 | 33 | 93 |
| Senior High | 391 | 95 | 65 | 94 | 29 | 25 | 9 | 74 |

A copy of the rating sheet is included on the pages to follow so the comments on ratings will be more easily understood.

TABLE IV

Holy-Arnold Score Card for Secondary
School Buildings. (5:69-73)

| | <u>Possible Points</u> | <u>Rating For Morgan</u> | <u>Rating For Senior High</u> |
|-----------------------------|----------------------------|------------------------------|-----------------------------------|
| I. SITE | <u>120</u> | <u>90</u> | <u>95</u> |
| A. Location | <u>49</u> | <u>49</u> | <u>49</u> |
| 1. Accessibility | 27 | 27 | 27 |
| 2. Environment | 22 | 22 | 22 |
| B. Physical Features | <u>44</u> | <u>29</u> | <u>29</u> |
| 1. Size of Site | 20 | 5 | 5 |
| 2. Form | 14 | 14 | 14 |
| 3. Nature of Soil | 10 | 10 | 10 |
| C. Improvements | <u>27</u> | <u>12</u> | <u>17</u> |
| 1. Arrangement of Space | 17 | 9 | 9 |
| 2. Landscaping | 10 | 3 | 8 |
| II. BUILDING | <u>158</u> | <u>112</u> | <u>65</u> |
| A. Placement | <u>23</u> | <u>20</u> | <u>14</u> |
| 1. Orientation | 12 | 9 | 3 |
| 2. Position on Site | 11 | 11 | 11 |
| B. Educational Plan | <u>43</u> | <u>17</u> | <u>10</u> |
| 1. Flexibility | 16 | 4 | 0 |
| 2. Expansibility | 13 | 3 | 3 |
| 3. Economy of Plan | 14 | 10 | 7 |

| | <u>Possible Points</u> | <u>Rating For Morgan</u> | <u>Rating For Senior High</u> |
|---------------------------------|----------------------------|------------------------------|-----------------------------------|
| C. Gross Structure | <u>45</u> | <u>41</u> | <u>28</u> |
| 1. Material | 8 | 8 | 2 |
| 2. Foundations | 7 | 7 | 7 |
| 3. Walls | 6 | 4 | 3 |
| 4. Roof | 5 | 5 | 5 |
| 5. Height | 4 | 4 | 4 |
| 6. Exits | 7 | 7 | 7 |
| 7. Condition of Building | 8 | 6 | 0 |
| D. Internal Structure | <u>47</u> | <u>34</u> | <u>13</u> |
| 1. Stairways | 14 | 14 | 4 |
| 2. Corridors | 14 | 7 | 4 |
| 3. Lobbies | 7 | 4 | 2 |
| 4. Basement | 12 | 9 | 3 |
| III. ACADEMIC CLASSROOMS | <u>167</u> | <u>129</u> | <u>94</u> |
| A. Construction | 107 | 84 | 61 |
| 1. Size | 18 | 13 | 9 |
| 2. Shape | 12 | 12 | 9 |
| 3. Windows | 11 | 11 | 8 |
| 4. Shades | 4 | 3 | 3 |
| 5. Floors | 9 | 9 | 7 |
| 6. Walls and Ceilings | 9 | 7 | 7 |
| 7. Doors | 8 | 8 | 8 |

| | <u>Possible Points</u> | <u>Rating For</u> | |
|--------------------------------|----------------------------|-------------------|--------------------|
| | | <u>Morgan</u> | <u>Senior High</u> |
| 8. Color Scheme | 8 | 4 | 0 |
| 9. Blackboards | 11 | 6 | 3 |
| 10. Bulletin Boards | 8 | 6 | 4 |
| 11. Closets and Built-in Cases | 9 | 5 | 3 |
| B. Equipment | <u>60</u> | <u>45</u> | <u>33</u> |
| 1. Type | 36 | 27 | 27 |
| 2. Arrangement | 24 | 18 | 6 |
| IV. SPECIAL CLASSROOMS | <u>171</u> | <u>92</u> | <u>29</u> |
| A. Science Laboratories | <u>34</u> | <u>16</u> | <u>17</u> |
| Junior High Schools | | | |
| 1. General Science | 22 | 16 | |
| 2. Biology | 12 | 0 | |
| Senior High Schools | | | |
| 1. General Science | 7 | | 0 |
| 2. Biology | 9 | | 5 |
| 3. Chemistry | 9 | | 7 |
| 4. Physics | 9 | | 5 |
| B. Home Economics | <u>37</u> | <u>32</u> | <u>0</u> |
| 1. Foods Laboratory | 14 | 14 | 0 |
| 2. Home-Making Rooms | 10 | 5 | 0 |
| 3. Clothing Laboratory | 13 | 13 | 0 |
| C. Industrial Arts | <u>46</u> | <u>25</u> | <u>0</u> |

| | <u>Possible Points</u> | <u>Rating For Morgan</u> | <u>Rating For Senior High</u> |
|---------------------------------------|----------------------------|------------------------------|-----------------------------------|
| 1. General Shop | 11 | 11 | 0 |
| 2. Print Shop | 4 | 0 | 0 |
| 3. Automobile-Repair Shop | 5 | 0 | 0 |
| 4. Electric Shop | 6 | 0 | 0 |
| 5. Woodworking Shop | 9 | 9 | 0 |
| 6. Machine Shop | 5 | 5 | 0 |
| 7. Sheet-Metal Shop | 6 | 0 | 0 |
| D. Commercial Rooms | <u>23</u> | <u>0</u> | <u>12</u> |
| 1. Bookkeeping Room | 11 | 0 | 6 |
| 2. Typewriting Room | 12 | 0 | 6 |
| E. Drawing and Fine-Arts Rooms | <u>31</u> | <u>19</u> | <u>0</u> |
| 1. Mechanical Drawing | 8 | 8 | 0 |
| 2. Art | 11 | 11 | 0 |
| 3. Music | 12 | 0 | 0 |
| V. GENERAL SERVICE ROOMS | <u>153</u> | <u>58</u> | <u>25</u> |
| A. Auditorium | <u>34</u> | <u>34</u> | <u>0</u> |
| 1. Assembly Room | 21 | 21 | 0 |
| 2. Stage | 13 | 13 | 0 |
| B. Physical-Education Rooms | <u>39</u> | <u>24</u> | <u>0</u> |
| 1. Gymnasium | 14 | 14 | 0 |
| 2. Dressing and Shower Rooms | 7 | 4 | 0 |
| 3. Corrective Room | 4 | 3 | 0 |

| | <u>Possible Points</u> | <u>Rating For Morgan</u> | <u>Rating For Senior High</u> |
|----------------------------------|----------------------------|------------------------------|-----------------------------------|
| 4. Offices | 3 | 2 | 0 |
| 5. Examination Room | 3 | 0 | 0 |
| 6. Storage Room | 3 | 1 | 0 |
| 7. Laundry | 1 | 0 | 0 |
| 8. Swimming Pool | 4 | 0 | 0 |
| C. Library | <u>35</u> | <u>0</u> | <u>13</u> |
| 1. Reading Room | 14 | 0 | 7 |
| 2. Equipment | 9 | 0 | 5 |
| 3. Workroom | 4 | 0 | 1 |
| 4. Library Classroom | 4 | 0 | 0 |
| 5. Conference Rooms | 4 | 0 | 0 |
| D. Cafeteria | <u>27</u> | <u>0</u> | <u>7</u> |
| 1. Lunchroom | 12 | 0 | 3 |
| 2. Kitchen | 9 | 0 | 3 |
| 3. Auxiliary Rooms | 6 | 0 | 1 |
| E. Study Halls | <u>18</u> | <u>0</u> | <u>5</u> |
| VI. ADMINISTRATIVE ROOMS | <u>92</u> | <u>33</u> | <u>9</u> |
| A. Administrative Offices | <u>34</u> | <u>25</u> | <u>7</u> |
| 1. General Office | 9 | 7 | 3 |
| 2. Principal's Private Office | 7 | 7 | 0 |
| 3. Reception Room | 4 | 4 | 0 |
| 4. Supply Room | 4 | 3 | 0 |

| | <u>Possible Points</u> | <u>Rating For</u> | |
|-----------------------------------|----------------------------|-------------------|--------------------|
| | | <u>Morgan</u> | <u>Senior High</u> |
| 5. Bookroom | 4 | 1 | 1 |
| 6. Vault | 3 | 3 | 0 |
| 7. Other Offices | 3 | 0 | 3 |
| B. Teachers' Rooms | <u>15</u> | <u>0</u> | <u>2</u> |
| 1. Workrooms | 7 | 0 | 0 |
| 2. Rest Rooms | 8 | 0 | 2 |
| C. Community Rooms | <u>8</u> | <u>0</u> | <u>0</u> |
| D. Student-Activity Rooms | <u>10</u> | <u>0</u> | <u>0</u> |
| E. Clinics | <u>10</u> | <u>0</u> | <u>0</u> |
| F. Pupils' Rest Rooms | <u>7</u> | <u>4</u> | <u>0</u> |
| G. Janitors' Rooms | <u>8</u> | <u>4</u> | <u>0</u> |
| VII. SERVICE SYSTEMS | <u>139</u> | <u>93</u> | <u>74</u> |
| A. Heating and Ventilating | <u>25</u> | <u>13</u> | <u>6</u> |
| B. Artificial Lighting | <u>17</u> | <u>9</u> | <u>0</u> |
| C. Water Supply | <u>24</u> | <u>16</u> | <u>10</u> |
| 1. Purity of Water | 8 | 8 | 8 |
| 2. Plumbing | 5 | 3 | 0 |
| 3. Drinking Fountains | 4 | 3 | 1 |
| 4. Lavatories | 4 | 2 | 1 |
| 5. Showers | 3 | 0 | 0 |
| D. Toilets | <u>19</u> | <u>15</u> | <u>19</u> |
| 1. Locations | 10 | 10 | 10 |

| | <u>Possible Points</u> | <u>Rating For Morgan</u> | <u>Senior High</u> |
|--------------------------------|----------------------------|------------------------------|--------------------|
| 2. Rooms | 9 | 5 | 3 |
| E. Fire-Protection Systems | <u>23</u> | <u>16</u> | <u>15</u> |
| 1. Fire-Resistive Construction | 8 | 6 | 6 |
| 2. Fire-Protection Equipment | 4 | 2 | 2 |
| 3. Elimination of Fire Hazards | 6 | 4 | 4 |
| 4. Exits and Fire Escapes | 5 | 4 | 3 |
| F. Electric Systems | <u>16</u> | <u>16</u> | <u>16</u> |
| 1. Telephones | 5 | 5 | 5 |
| 2. Radio | 3 | 3 | 3 |
| 3. Clock and Program System | 5 | 5 | 5 |
| 4. Motion-Picture Equipment | 3 | 3 | 3 |
| G. Lockers | <u>10</u> | <u>5</u> | <u>5</u> |
| H. Cleaning Systems | <u>5</u> | <u>3</u> | <u>3</u> |

**WE ARE STUDYING ABOUT THE NAVAJOS
NAVAJOS LIVE IN HOGANS.**



**NAVAJOS HAVE HERDS OF GOATS AND SHEEP.
NAVAJO WOMEN WEAVE BLANKETS WITH PRETTY DESIGNS.**



**NAVAJO MEN PLOW LAND AND GROW GARDENS.
NAVAJO CHILDREN HELP THEIR MOTHERS AND FATHERS.**



Classroom
Washington Elementary School

TABLE V

Moehlman Score Card for School
Buildings. (6:274-30 A.)

| SITE | <u>Washington</u> | <u>Lincoln</u> |
|--|-------------------|----------------|
| 1. <u>Location</u> : A site may be considered excellent if located so that its drawing power from all directions is equal. | <u>Fair</u> | <u>Fair</u> |
| 2. <u>Size</u> : The following site sizes are considered excellent: elementary, 10-15 acres; secondary, 15-40 acres. | <u>Poor</u> | <u>Poor</u> |
| 3. <u>Expansibility of Site</u> : Expansibility may be considered excellent if enlargement is possible at reasonable expense and without creating hazards. | <u>Poor</u> | <u>Poor</u> |
| 4. <u>Disturbing Factors</u> : Noise. A site may be considered excellent if free from disturbing or interfering noise either by direct location size, or protective screening. | <u>Good</u> | <u>Good</u> |
| 5. <u>Shape</u> : In general, site shape is considered excellent if rectangular (2-3), (3-4) or square, and in a single unit. | <u>Good</u> | <u>Good</u> |
| 6. <u>Traffic Hazards</u> : Sites may be considered free from hazards (excellent) if all traffic areas around them are free from impediments (parking) or protected by traffic light signals, officers, underpass or overpass. | <u>Fair</u> | <u>Poor</u> |
| 7. <u>Playground</u> : A site may be considered excellent which provides a minimum of 200 square feet per child in working capacity of usable playground, exclusive of gardens and parked areas. | <u>Poor</u> | <u>Poor</u> |
| 8. <u>Screening</u> : A site may be rated excellent which provides through both fencing and landscaping screening for the playground and noise areas effectively enough to reduce | | |

| | <u>Washington</u> | <u>Lincoln</u> |
|---|-------------------|----------------|
| neighborhood nuisances and annoyances (conflicts) by deadening noise and eliminating trespass. | <u>Good</u> | <u>Fair</u> |
| 9. <u>Landscaping: General Effect</u> , A judgment on the effect of the planting of the school site as a whole to secure a subjective feeling of the extent to which the totality of building, site, screening, and planting improves the neighborhood. | <u>Fair</u> | <u>Poor</u> |
| 10. <u>Provisions for Parking</u> : A site may be rated good that provides sufficient area for the parking of normal automobile concentration caused by the presence of the school. | <u>Fair</u> | <u>Fair</u> |
| 11. <u>Drainage</u> : | <u>Poor</u> | <u>Poor</u> |
| THE BUILDING | | |
| 1. <u>Age</u> : Buildings over fifty years of age are generally rated "poor"; buildings over thirty years, "fair". | <u>Good</u> | <u>Good</u> |
| 2. <u>Structural Safety (fire resistant)</u> : Fire resistant Class A buildings are considered excellent, Class B buildings, satisfactory; Classes C and D in urban districts, poor. | <u>Fair</u> | <u>Fair</u> |
| 3. <u>Plan Hazards</u> : The basic plan is considered good if there are no hazards to safety, such as blind coves, blind corridors, unguarded stairs, slippery stairs, abstractions to traffic. In general, open plans have a lower psychological hazard than closed plans. | <u>Good</u> | <u>Good</u> |
| 4. <u>Expansibility</u> : A building may be rated good with respect to expansibility when additions can be made effectively and economically without destroying or wasting space. Open plans are expansible; closed plans are nonexpansible. | <u>Fair</u> | <u>Fair</u> |
| 5. <u>Flexibility</u> : A building may be rated good with respect to flexibility if the basic plan is so designed that internal changes | | |

| | <u>Washington</u> | <u>Lincoln</u> |
|---|-------------------|----------------|
| can be made efficiently and economically. Structurally, flexibility demands that all longitudinal walls shall be curtain and not bearing walls. | <u>Fair</u> | <u>Fair</u> |
| 6. <u>Traffic Efficiency</u> : Ratio between the instructional area of a building and the area devoted to corridors, stairways, and entrance halls. | <u>Fair</u> | <u>Good</u> |
| 7. <u>Instruction-Envelope-Efficiency</u> : The product of the instruction-envelope-efficiency and the physical-envelope-efficiency. | <u>Fair</u> | <u>Fair</u> |
| 8. <u>Use</u> : Relation of membership and program to the working capacity of a building. | <u>Good</u> | <u>Good</u> |
| 9. <u>Natural Lighting</u> : A classroom may be considered good which has twenty per cent natural lighting. | <u>Good</u> | <u>Good</u> |
| 10. <u>Artificial Lighting</u> : A classroom may be considered good which can produce from 10 to 15 foot candles at desk level without the natural lighting. | <u>Good</u> | <u>Good</u> |
| 11. <u>Heating and Ventilating</u> : A building may be rated good that can provide at least three air changes an hour and maintain a uniform classroom temperature of 68° to 72° with a relative humidity of 45° to 50° economically. | <u>Poor</u> | <u>Good</u> |
| 12. <u>Sanitation</u> : A building may be rated good if the sanitary facilities are adequate, well located, well ventilated, provide direct sunlight, and are free from undesirable odors. | <u>Poor</u> | <u>Fair</u> |
| 13. <u>Basement</u> : Basement rooms are considered poor as classrooms if they are more than three feet below finished grade; satisfactory if they are from three feet to grade level, and good if completely above grade level. | <u>Good</u> | <u>Good</u> |
| 14. <u>Height</u> : The optimum height for secondary buildings is three stories, for elementary | | |

buildings, two stories.

Washington Lincoln

Good Good

15. Operating Efficiency: Rating to be made on results of factual evidence.

Good Good

16. Unkeep Efficiency: Rating to be made on results of factual evidence.

Fair Good

GENERAL SUMMARY RATING:

Fair Fair



Classroom
with Radio Broadcasting Booth in Rear, Senior High School

TABLE VI

Moehlman Score Card for School
Buildings. (6:274-30 A.)

Morgan Senior High

SITE

- | | |
|--|-------------------------|
| 1. <u>Location</u> : A site may be considered excellent if located so that its drawing power from all directions is equal. | <u>Fair</u> <u>Fair</u> |
| 2. <u>Size</u> : The following site sizes are considered excellent: Elementary, 10-15 acres; secondary, 15-40 acres. | <u>Poor</u> <u>Poor</u> |
| 3. <u>Expansibility of Site</u> : Expansibility may be considered excellent if enlargement is possible at reasonable expense and without creating hazards. | <u>Poor</u> <u>Poor</u> |
| 4. <u>Disturbing Factors</u> : Noise. A site may be considered excellent if free from disturbing or interfering noise either by direct location size, or protective screening. | <u>Good</u> <u>Good</u> |
| 5. <u>Shape</u> : In general, site shape is considered excellent if rectangular (2-3), (3-4) or square, and in a single unit. | <u>Fair</u> <u>Fair</u> |
| 6. <u>Traffic Hazards</u> : Sites may be considered free from hazards (excellent) if all traffic areas around them are free from impediments (parking) or protected by traffic light signals, officers, underpass or overpass. | <u>Fair</u> <u>Fair</u> |
| 7. <u>Playground</u> : A site may be considered excellent which provides a minimum of 200 square feet per child in working capacity of usable playground, exclusive of gardens and parked areas. | <u>Poor</u> <u>Poor</u> |
| 8. <u>Screening</u> : A site may be rated excellent which provides through both fencing and landscaping screening for the playground and noise areas | |

Morgan Senior High

effectively enough to reduce neighborhood nuisances and annoyances (conflicts) by deadening noise and eliminating trespass.

Fair Fair

9. Landscaping: General Effect, A judgment on the effect of the planting of the school site as a whole to secure a subjective feeling of the extent to which the totality of building, site, screening, and planting improves the neighborhood.

Fair Fair

10. Provisions for Parking: A site may be rated good that provides sufficient area for the parking of normal automobile concentration caused by the presence of the school.

Poor Poor

11. Drainage:

Fair Fair

THE BUILDING

1. Age: Buildings over fifty years of age are generally rated "poor"; buildings over thirty years, "fair".

Good Fair

2. Structural Safety (fire resistant): Fire resistant Class A buildings are considered excellent, Class B buildings, satisfactory; Classes C and D in urban districts, poor.

Fair Fair

3. Plan Hazards: The basic plan is considered good if there are no hazards to safety, such as blind coves, blind corridors, unguarded stairs, slippery stairs, obstructions to traffic. In general, open plans have a lower psychological hazard than closed plans.

Fair Fair

4. Expansibility: A building may be rated good with respect to expansibility when additions can be made effectively and economically without destroying or wasting space. Open plans are expansible; closed plans are nonexpansible.

Poor Poor

5. Flexibility: A building may be rated good

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with respect to flexibility if the basic plan is so designed that internal changes can be made efficiently and economically.

Structurally, flexibility demands that all longitudinal walls shall be curtain and not bearing walls.

Poor Poor

6. Traffic Efficiency: Ratio between the instructional area of a building and the area devoted to corridors, stairways, and entrance halls.
- Fair Poor
7. Instruction-Envelope-Efficiency: The product of the instruction-envelope-efficiency and the physical-envelope-efficiency.
- Fair Fair
8. Use: Relation of membership and program to the working capacity of a building.
- Fair Fair
9. Natural Lighting: A classroom may be considered good which has twenty per cent natural lighting.
- Good Fair
10. Artificial Lighting: A classroom may be considered good which can produce from 10 to 15 foot candles at desk level without the natural lighting.
- Fair Poor
11. Heating and Ventilating: A building may be rated good that can provide at least three air changes an hour and maintain a uniform classroom temperature of 68° to 72° with a relative humidity of 45° to 50° economically.
- Fair Poor
12. Sanitation: A building may be rated good if the sanitary facilities are adequate, well located, well ventilated, provide direct sunlight, and are free from undesirable odors.
- Fair Poor
13. Basement: Basement rooms are considered poor as classrooms if they are more than three feet below finished grade;

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satisfactory if they are from three feet to grade level, and good if completely above grade level.

Good Poor

14. Height: The optimum height for secondary buildings is three stories.

Good Good

15. Operating Efficiency: Rating to be made on results of factual evidence.

Fair Fair

16. Unkeep Efficiency: Rating to be made on results of factual evidence.

Fair Poor

GENERAL SUMMARY RATING:

Fair Poor

Chapter III

RECOMMENDATIONS AND SUMMARY

Board of Education. It shall be the responsibility of the Board of Education to consider and approve the educational needs, standards, and plans as presented by the Superintendent and to make provision for the financing of the school plant program, according to law.

Superintendent. No single individual has the ability to visualize all the needs and services of a modern public school. It is, however, the business of the Superintendent of schools to see the entire school system in all its relationships and thus be able to advise and to guide the local Board of Education. The wise Superintendent will carefully study the individual qualifications of his staff members and certain leaders in the community, and utilize their special abilities in making a study of community needs. As the chief executive officer of the board, he will serve as the director of the study, or he may, with the approval of the board, call in outside specialists. (2:13)

Buildings and Sites.

1. A careful study should be made regarding the possibility of procuring a suitable site in the Northwest part of Ellensburg. The erection of an economical primary unit in this area would be highly desirable.
2. An additional school site in Southeast Ellensburg is recommended for future planning of secondary educational plant facilities.
3. The present school plants for the elementary and junior

high people are deemed adequate, upon the completion of the present contemplated plans.

4. The interior decoration, artificial lighting and plumbing facilities in the senior high school need immediate attention.
5. It is strongly recommended that careful and continuous educational planning be carried on during the next three years.

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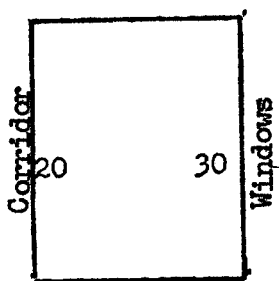
11. Saale, Charles William, "New Trends in School Lighting," The Society for the Advancement of Education, Inc., New York: (February 19, 1949)

--APPENDIX

ARTIFICIAL LIGHTING

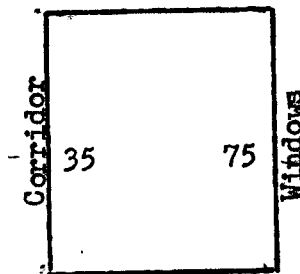
The following figures show the amount of light at desk level, on a normal sunshine school day in an average classroom in Washington and Lincoln Elementary Schools. The study hall was selected for the Senior High School. The light was measured with the inside row of lights on in the elementary schools, but all of the lights were in use in the high school test. The 1949 recommended standard is from twenty to forty footcandles in ordinary classrooms and fifty or more in classrooms where seeing tasks are unusually difficult. (1:226)

Dr. Charles W. Saale has made many suggestions that should be taken into consideration before any major changes are decided upon to improve any present situation deemed necessary. (11:121-23)



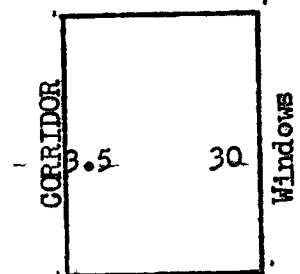
WASHINGTON
SCHOOL

FIGURE VII



LINCOLN
SCHOOL

FIGURE VIII



SENIOR HIGH
SCHOOL

FIGURE IX