Special

Monday, September 22, 2003 5:00 PM
Granbury ISD Board Room, 600 West Pearl St., Granbury, TX 76048, W Pearl St, Granbury, TX 76048

1. **Call to order**
2. **Review facilities report**
3. **Adjourn**

FACILITIES EVALUATION AND PROJECTED NEEDS

Granbury Independent School District

April 2003

Texas Association of School Administrators
Administrative Services Resource Center
406 East 11th Street
Austin, TX 78701
512-477-6361

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FOREWORD

In January 2003, the Texas Association of School Administrators (TASA) was retained to conduct a school plant survey related to the educational facilities of Granbury Independent School District (Granbury ISD).

This report is the result of the study made by the Administrative Services Resource Center of TASA. We especially want to thank the superintendent, the central office staff, school principals and their staffs, and the maintenance and custodial staffs for their cooperation. To all that assisted us, we express our deep appreciation. Without their interest and willingness to give of their time, the preparation of this report would have been most difficult.

Study Team

Johnny L. Veselka
Executive Director
TASA

Project Director: Jerry Gideon
Consultant
TASA

Project Consultant: Paul Trautman
Educational Consultant
TASA

Production: Barbara Hardin
TASA

PREFACE

Study Procedures

This study was conducted during March of 2003 for the purpose of determining the population trends and the condition and capacity of the school plants in order to have information essential to long-term planning for future school building needs. Specifically, the Granbury ISD administration charged the TASA consultants with:

1. An examination of enrollments, historical and current trends, and projected future trends
2. A capacity and utilization study of all district schools
3. An inventory and evaluation of all existing facilities
4. The development of options available to the district to meet facility needs based on enrollment projections and priorities developed during the study

Our inquiry focused on (1) a demographic analysis of school population information and enrollment forecast, (2) an objective evaluation of physical and educational features of the total school plant, (3) a uniform capacity analysis and space inventory of the existing facilities, and (4) an evaluation of the best use of existing facilities based on information obtained from on-site visits and information provided to us by the district.

Enrollment Forecast

The principal methodology used in enrollment forecasting is known as the cohort-survival method. This technique requires calculating the ratio of the number of students enrolled in a specific grade in one year compared to the number of students who survive and are enrolled in the next grade the following year. This survival rate is calculated using historical membership data. It is affected by such factors as net migration, school promotion, and withdrawal rates. Fluctuations in the data from year-to-year create a pattern between grade levels from which average survival rates can be calculated and used to project future student enrollment. For example, if during a period of several years an average of 96 percent of grade 3 membership becomes grade 4 membership the following year, and if 100 children are now enrolled in grade 3, the forecast can estimate that next year's grade 4 will have 96 children. These average survival rates are then adjusted based on specific growth assumptions for each attendance area and on local growth data. The local data includes regional employment data, census data, county population forecasts, utility connection information, transportation plans, construction lending activity, and subdivision development activity. This data allows the formulation of appropriate growth assumptions.

Evaluation of Existing Facilities

To determine the condition of existing schools, the procedures include inspecting the existing school facilities using a validated evaluation instrument, based on nationally accepted standards that have been specifically adapted to Texas standards, regulations, and recommendations. The survey instrument is an updated and edited version of a validated and nationally recognized instrument that has been used for evaluating school buildings nationally since the 1950s. It is designed to guide the evaluation process in an orderly and comprehensive manner. It also is designed to make the evaluation process as objective as possible despite the fact that there are many subjective judgments that the evaluator must make in the process.

The survey instrument consists of 105 questions evaluating the six functional characteristics of an educational facility. Those characteristics are (1) educational adequacy, (2) health and safety, (3) accessibility, (4) efficiency, (5) flexibility, and (6) appearance. Each of those characteristics is further divided into three subdivisions—the site, student areas, and general features. The survey instrument evaluates the building on a theoretical 1,000 point value score, weighing each of these characteristics of the school plant. More than half the total value score (535 points of 1,000) is assigned to the educational features of the facility. The remaining 465 points are assigned to the site (205) and the general features (260). A sample of the survey instrument is included in the Appendix. The following definitions are an excerpt from the survey instrument.

FUNCTIONAL CHARACTERISTICS DEFINED . . .

Educational Adequacy of the School Plant — Refers to the relationship between the size of the site and the overall size of the buildings on one hand, and the number of students to be served on the other. Those building features that are more appropriately judged on an educational sufficiency basis are also evaluated here.

Safety and Healthfulness of the School Plant — Refers to those features of the school plant that make the building and its occupants safe from hazards of traffic, fire, toxins, and accidents, and the degree to which occupants are provided adequate lighting, heating, cooling, ventilation, sanitation, and are free from intrusive and excessive noise. Are the building's features intended to protect and promote the safety and good health of its occupants?

Accessibility of the School Plant — Refers to the proximity of the school building to the student population it serves, its central location, conveniently accessible by streets and walkways, as well as ease of access to the site and building.

Efficiency of the School Plant — Refers to the occupants' ability to receive maximum effect for a minimum of invested effort. An efficient building requires a minimum of student travel for daily routines; it has facilities located for maximum utilization. It isolates areas of noise, has finishes that are easy to clean from convenient custodial facilities, and operates at minimum of cost, conserving energy for heating, cooling, and lighting.

Flexibility of the School Plant — Refers to the building's capacity, as designed and constructed, to meet new and changing demands of curriculum. Also refers to the possibility for enlarging the

building and developed site to meet expanding educational needs and/or population. It finally refers to the possibility that the building may change its use(s) during its functional life. This is provided, primarily through design, construction details, and considerations in the electrical and mechanical systems.

Appearance of the School Plant — Refers to the look, the impression made by the building and whether it is, in the aggregate, pleasing to the eye. Attention is given to texture, color, shape, scale, landscaping, and the appropriateness of furnishings and use of decoration.

Both the survey instrument's weighted functional characteristic scores and Facility Composite Score are translated into percentage scores for ease of comparison. The Facility Composite Score represents the facility's total score of all functional characteristics. This composite score is valuable in assessing how well the facility serves the educational needs of the learners through the program being offered and is evaluated in relation to the following scale:

Facility Score	*General Evaluation*
90–100%	A school facility of exceptional quality.
70–89%	Serves program needs well; some minor or component improvements are needed.
60–69%	Facility needs substantial or major rehabilitation.
46–59%	Complete renovation or replacement indicated; a more detailed study may need to be completed prior to a final decision.
00–45%	Abandon and/or replace the facility.

Facilities that score 900–1,000 points are of exceptional quality. Facilities that score 700–900 points are satisfactory/good, but their component parts should be studied, as they may need some alteration or renovation to put them in first-class condition. Those that score 600–700 have substantial need for rehabilitation and upgrading. If the facility's score is 450–600, conditions are so bad that a complete restudy is indicated to determine if the building should be rehabilitated or abandoned for school use. For those scoring below 450, speedy abandonment is the only economical or justifiable course.

For each facility surveyed, the composite score and the scores for the six functional characteristics are reported graphically in Section II, Condition of Existing Facilities, of this report.

Capacity of Existing Facilities

The operational capacity of a school reflects the ability of the building(s) to accommodate the program it is intended to house. Capacity analysis of the school plant is based on nationally accepted standards and procedures, modified to be consistent with state standards, space requirements adopted by the State Board of Education, and local policies. Floor plans of

buildings, current organization and operating schedules, and room-by-room inspection are all utilized in making a space inventory and capacity analysis report that is part of the survey.

One standard unit for measuring the capacity of schools is the number of workstations for students, or *pupil stations*. This standard is normally used for determining capacity in departmentalized programs, typically found in the upper grades. The pupil stations assigned to classrooms in this study reflect the desired class size relative to room size based on standards approved by the State Board of Education; it also is an appropriate measure for all schools having classrooms smaller than state standards. These standards are effective for all new construction or major renovations approved by a local school board.

The space requirements approved by the State Board of Education are divided into two categories: Classrooms and Specialized Areas.

State Standards—Classrooms

	Elementary School PK–6		Middle School 6–8, 7–8 or 7–9		High School 9–12 or 10–12	
	Min Sq. Ft. Per Room	Min. Sq. Ft. Per Pupil	Min Sq. Ft. Per Room	Min. Sq. Ft. Per Pupil	Min Sq. Ft. Per Room	Min. Sq. Ft. Per Pupil
PK–1	800	36	N/A	N/A	N/A	N/A
2–12	700	30	700	28	700	28

State Standards—Specialized Areas

	Elementary School PK–6		Middle School 6–8, 7–8 or 7–9		High School 9–12 or 10–12	
	Min Sq. Ft. Per Room	Min. Sq. Ft. Per Pupil	Min Sq. Ft. Per Room	Min. Sq. Ft. Per Pupil	Min Sq. Ft. Per Room	Min. Sq. Ft. Per Pupil
Computer Labs	900	41	900	36	900	36
Science Lecture/Lab	900	41	1,000	50	1,200	50
Gym/PE	3,000	N/A	4,800	N/A	7,500	N/A
Library/Media Center	1,400	*	2,100	*	2,800	*

* Minimum: 3.0 square feet times planned school capacity.

The rules state that for each type of instructional space, "a district may satisfy the requirements of the rule by using either the standard for the minimum square feet per pupil or the standard for square feet per room, as appropriate." Size requirements are based on rooms that will house 22 pupils at Pre-Kindergarten (PK)–grade 4 and 25 pupils for academic classrooms at other grade levels.

NOTE: The Texas Commissioner of Education has established a procedure for the evaluation and possible revision of the rules relative to facilities. The current draft, which will be published for formal comments in the near future, is recommending some modification of the standards, including a requirement for educational specifications and modified requirements for science labs, computer labs, libraries, and academic classrooms. The changes are proposed to be effective in the spring of 2003. The following table reflects the major *proposed* modifications to space requirements.

2002 REVISIONS

State Standards – Classrooms

	Elementary School PK - 6		Middle School 6-8, 7-8 or 7-9		High School 9-12 or 10-12	
	Min S/F Per Room	Min. S/F Per Pupil	Min S/F Per Room	Min. S/F Per Pupil	Min S/F Per Room	Min. S/F Per Pupil
PK-1	800	36 S/F				
2-12	700	32 S/F	700	28 S/F	700	28 S/F

State Standards – Specialized Areas

	Elementary School PK - 6		Middle School 6-8, 7-8 or 7-9		High School 9-12 or 10-12	
	Min S/F Per Room (25)	Min. S/F Per Pupil (26+)	Min S/F Per Room	Min. S/F Per Pupil	Min S/F Per Room	Min. S/F Per Pupil
Computer Labs	900	41 S/F	900	36 S/F	900	36 S/F
Computer Resource Lab	700	classroom or less	700	classroom or less	700	classroom or less
Science Lecture/Lab*	900	41 S/F	1,200	50 S/F	1,400	58 S/F
Gym/PE	3,000	n.a.	4,800	n.a.	7,500	n.a.

* @ 22 pupil stations

Enrollment Range	100 or less	101-500		501-2,000		2,001 +	
Library/Media Center	1,400	1,400	4 S/F over 101	3,000	3 S/F over 501	7,500	2 S/F over 2,001
Examples of LMC Requirements		1,600	150	3,375	625	8,100	2200
		1,800	200	3,750	750	8,700	2400
		2,000	250	4,125	875	9,300	2600
		2,200	300	4,500	1000	9,900	2800
		2,400	350	4,875	1125	10,500	3000
		2,600	400	5,250	1250	11,100	3200
		2,800	450	5,625	1375	11,700	3400
				6,000	1500	12,300	3600
				6,750	1750	12,900	3800
				7,500	2000	13,500	4000

Within these requirements, two other issues strike this writer as particularly significant. The requirements relative to **minimum** classroom size state, *"classrooms shall be designed on the basis of expected maximum class size, and not expected average class size."* The proposed rules also will relate to the new and more demanding International Building Code and the International Fire Code, which are replacing the current building (UBC and SBC) and fire codes in most jurisdictions.

The other standard unit for measuring capacity of schools is the number of teaching stations, or *classroom equivalents*. This measure is typically applied to elementary schools where the program is offered in self-contained classrooms. As a check, this method also is applied to schools with departmentalized programs and smaller student bodies or with an unusually high number of class offerings relative to the school's size. In those cases, the classroom equivalent (teaching station) measure is often more appropriate.

It is important to understand that a school's capacity is not static. Rather, it is a fluid number; that is, it changes in response to the program it houses. The capacities reported in this study take into consideration the existing programs and the current size of grade groups and classes. Unless there are significant program or scheduling changes, or there is rapid growth in the next few years, these capacities represent useful capacities for district planning purposes.

A variety of factors influence the fluid capacity of a facility, including small special facilities; resource programs; advanced placement programs; small, inadequate, or too few laboratories; athletic periods; and pupil scheduling. Among the most common factors reducing a school's capacity are resource programs and the adequacy and capacity of special areas.

For calculating school capacities in this study, resource programs (often also called *pull-out* programs) are defined as those programs that remove students from other classrooms according to a schedule that does not free the pupil station the student leaves so that it can be regularly used by another student. In self-contained classroom schools, programs like music, physical education (PE), Title 1, and others that remove students from their self-contained classroom for special assistance or enrichment are resource programs. In departmentalized programs, resource programs are those programs that remove students on a random and irregular schedule, such as content mastery (where the pupils are given special assistance as needed with regular assignments). Both kinds of resource programs can significantly affect the capacity of a building. In this way, classrooms are said to have been absorbed by program requirements; these classrooms have no student capacity when calculating a school's capacity.

Often specialized spaces that were operationally adequate for the original design capacity have become limiting factors; they may not have been expanded to accommodate the larger enrollment resulting from classroom additions. This is typically seen in cafeterias, kitchens, administrative areas, restrooms, teacher workrooms, dressing rooms, storage rooms, and corridor traffic, as well as in special facilities for music, art, science, computer education, gymnasiums, vocational education, and special education resource rooms. Evaluation of total school plant has to consider the relationship of instructional and auxiliary space to ensure smooth operation.

The operational capacity of a school that is reported in this study reflects its functional operating capacity, and includes application of a utilization factor calculated for the school and compared to the optimal utilization factors (secondary, 85 percent; middle school/junior high, 90 percent; and elementary, 95 percent). The calculated utilization factor for elementary schools generally ranges from 88 percent to 95 percent (see illustration below). For secondary schools it generally ranges from 67 percent to 83 percent. This accounts for such issues as students not enrolling/electing, in multiples of 22 or 25 students, for either required subjects or

electives, and the fact that rooms will generally have no students in them during the teachers' planning periods. In secondary schools with smaller enrollments or with many electives, the utilization factor may be as low as 67 percent and still represent efficient use of the building.

The functional capacity of elementary school classrooms in Texas is based on the maximum staffing ratios allowed and the number of sections per grade level. Up through grade 4, state rules limit enrollment to 22 students and allow up to 25 for older students. Once that number is exceeded, the district must either add an additional section or seek a variance to allow a larger enrollment (NOTE: Some districts address this issue with multi-age grouping at the elementary level). The effective average capacity is the midpoint between the number of sections involved (by grade level), as seen below.

ELEMENTARY CAPACITY: UTILIZATION FACTORS

Range of	Enrollment; Midpoint,	Class size	Utilization	Enrollment; Midpoint,	Class size	Utilization
Sections	add section @ 22	at Midpoint	Factor	add section @ 25	at Break	Factor
1-2	23	33	16.5	**75%**	26	38	18.8	**75%**
2-3	45	55	18.2	**83%**	51	63	20.6	**83%**
3-4	67	77	19.3	**88%**	76	88	21.9	**88%**
4-5	89	99	19.8	**90%**	101	113	22.5	**90%**
5-6	111	121	20.2	**92%**	126	138	22.9	**92%**
6-7	133	143	20.4	**93%**	151	163	23.2	**93%**
7-8	155	165	20.6	**94%**	176	188	23.4	**94%**
8-9	177	187	20.8	**94%**	201	213	23.6	**94%**
9-10	199	209	20.9	**95%**	226	238	23.8	**95%**

Operational capacities for all the schools included in this study are calculated and reported in Section III, Capacities of Existing Facilities, of this report.

Maintaining Planning Data

Substantial data generated in these studies (space inventory and utilization, enrollment projections, the facility evaluation, numerous items of facility inventory) are digital and can be stored on computer. Given periodic updating, these files could comprise a facility information system for planning to verify space needs by campus, controlling efficiency of space management, evaluating the effect of management plans or policies, and producing data for long-term school construction.

EXECUTIVE SUMMARY

Introduction

This study analyzes a district's facilities compared to state and other established standards, and it identifies the range of deficiencies compared to those standards. The nature of a deficiency analysis is to draw attention to items that do not meet the standards. Because the report identifies shortcomings, the reader should not misunderstand that all is wrong with the district's schools. It is the function of this analysis to report shortcomings in relation to adequately housing the district's current instructional program.

The study team consulted with the superintendent and other staff regarding pertinent district information and spent time in March and April 2003 on site conducting the fieldwork associated with this study. The field evaluations and information solicited from Granbury ISD staff constitute the primary data for this study.

Findings: Population Projections

Demographic research on the region and Granbury ISD's enrollment history reports that the district's membership has grown aggressively during the last decade, moderating to a slower rate during the second half. Generally, growth patterns are more likely to mirror the most recent years. Allowing for that likelihood, Granbury ISD is expected to grow between 16 and 20 percent in the coming 10 years. The current depressed economy supports a period of slower growth, but a significant change in the current economic patterns could accelerate the rates of growth.

Table 1
District Projections by Grade Level

	Year	EE	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	Total	Percent Growth	10-Yr. Avg.
HISTORIC	1991-92	18	121	416	479	429	404	451	469	431	416	390	441	340	315	289	5,408	0.0%	
	1992-93	8	90	426	451	459	398	381	452	441	423	399	422	347	323	270	5,290	97.8%	
	1993-94	17	123	371	450	452	446	438	389	436	458	430	413	361	316	291	5,391	101.9%	
	1994-95	13	144	397	411	439	450	449	468	403	478	491	497	382	345	293	5,650	104.8%	
	1995-96	8	118	425	434	438	463	469	465	479	446	472	539	401	354	306	5,817	103.0%	
	1996-97	17	140	401	450	479	447	474	501	479	498	484	560	442	380	312	6,064	104.2%	
	1997-98	22	114	412	430	451	477	467	470	507	487	489	543	459	408	356	6,092	100.5%	
	1998-99	27	109	442	449	427	460	481	485	496	493	494	594	386	408	364	6,115	100.4%	
	1999-00	23	131	458	490	470	474	497	498	515	536	493	600	385	363	354	6,261	102.7%	
	2000-01	29	119	446	488	485	483	451	506	504	541	511	610	405	383	342	6,303	100.4%	101.7%
	2001-02	31	121	438	465	492	499	487	483	521	538	553	570	515	424	349	6,486	102.9%	
	2002-03	27	124	473	437	457	501	527	484	492	542	556	624	500	439	380	6,563	101.2%	102.2%
FORECAST	2003-04	28	127	484	510	428	468	516	547	496	517	549	643	493	474	397	6,676	101.7%	
	2004-05	28	130	494	521	499	439	482	536	561	521	524	635	507	467	429	6,774	101.5%	
	2005-06	29	132	505	532	510	512	452	501	549	590	528	606	501	481	423	6,851	101.1%	
	2006-07	29	135	516	544	522	523	527	469	513	577	598	611	478	475	435	6,954	101.5%	
	2007-08	30	138	528	556	533	535	538	547	481	540	585	691	482	453	430	7,068	101.6%	
	2008-09	31	141	540	569	545	546	550	559	561	505	547	676	545	457	410	7,184	101.6%	
	2009-10	31	145	552	581	557	559	563	572	573	589	512	632	534	517	414	7,331	102.0%	
	2010-11	32	148	564	594	570	571	575	584	586	602	597	592	499	506	468	7,489	102.2%	
	2011-12	33	151	576	607	582	584	588	597	599	616	611	690	467	473	458	7,634	101.9%	
	2012-13	34	154	589	621	595	597	601	611	612	629	624	706	545	443	428	7,790	102.0%	101.7%

Fluctuations occur due to the different class sizes moving through the district during the projection period. It should be noted that the above projections are based on October data for the prior 12 years. These projections forecast October enrollments for the subsequent years; in growing districts the actual peak enrollment will generally occur later in the year. In all districts it is probable that the peak enrollment will occur at varying times during the year for schools within a district. Peaks at the secondary level most often occur in the fall of the school year, but in the winter or spring at the elementary grades.

Looking at reasonable expectations for long-term growth, the trend will be toward continued steady growth through 2025–2030, with the trends suggesting that Granbury ISD could have over 11,000 students by then, and more than 3,000 high school students in grades 9–12.

Findings: Facility Evaluation

The district's improvements range in age, generally from the years following World War II through those built in 1999 and 2000. Generally, the older facilities are the least functional. Only the Behavior Transition Center scores within the range where complete renovation or replacement is needed; it should be relocated to more suitable facilities. The high school facility and the intermediate school facilities are the general areas with the most need. Of these schools, Oak Woods Intermediate School is relatively new, but the shortcomings related to it make it a *bubble* school; its useful future as a regular school administrative unit is likely quite limited. The older Crossland Intermediate School scores about the same as Oak Woods Intermediate School, but is not subject to the same long-term limitations as Oak Woods Intermediate School. The scores of the other schools all fall within the good range, with the newest bordering on excellent; the older schools are generally lower in this range and the newest schools substantially higher.

It is said that school facilities become important when they get in the way of good instruction; the Behavior Transition Center has reached that point, and Granbury High School and Oak Woods Intermediate School are close to that. The intermediate level facilities are all in need of attention; the scope will depend on the decisions regarding school organization and school size that need to be addressed by the district. The facility serving the high school program has similar needs, and their scope also should be determined after the questions of one or two high schools and ultimate high school size are addressed. In addition, student population should be monitored carefully.

Granbury ISD should develop a *long-range facilities master plan* that is based on decisions about school organization and sizes of the various administrative units. The scope of needs identified by a facilities master plan also will be impacted significantly by the amount of classroom space needed to support differentiated instruction at all levels.

The master plan should specifically address the refurbishing/renovation of the high school facility, as well as the probable construction of a new, second high school. It also should address elementary school organization and evaluate options for Oak Woods Intermediate School. It should make recommendations regarding future uses/replacement of and plan the phased refurbishing and upgrading of the older schools. Brawner Intermediate School might be considered as temporary support for secondary programs during interim periods and/or during construction. The plan also should address issues of redistricting and determine if the existing inventory of surplus space and potential surplus space in the western areas of the district can effectively help meet growth that is more likely to occur in the eastern areas of the district.

Finally, depending on decisions regarding Oak Woods Intermediate School, interim uses of Brawner Intermediate School and the effective pairing of Brawner Intermediate School and Roberson Elementary School for elementary programs, the district may face the need for one or two more new elementary-level schools. These could be needed for a combination of reasons, because of school size criteria established by district planning policies, as replacement facilities, and as a result of growth in the district.

The district needs to deal with both existing needs *and* growth; Granbury ISD should become as aggressive with the process of replacing and upgrading schools for long-term use as it has been in

addressing growth needs. Solutions for both should be *based on well-defined planning policies that reflect the district's instructional program and values.*

Findings: Site Evaluations

Site size is a concern for Granbury ISD. Functional school sites are determined by their useable acreage, which is the total acreage adjusted for easements, floodplains, irregular terrain, shape, and the like, together with appropriate vehicular and pedestrian access. Relative to the sites, Oak Woods Intermediate School is the least functional, followed by the high school site of 70 acres, while those most appropriate for their uses include Baccus Elementary School, Mambrino School, and the two new middle schools. Others have various degrees of shortcomings related to those key elements; generally all are functionally smaller than is appropriate. These site shortfalls will be exacerbated by the need to add classrooms over the coming years and the temptation to resolve space shortages through additions to existing schools. Additions impact the real capacity of sites and the capacity of the core and support spaces; the scope of these impacts is generally geometric, due to the marginal capacity of these elements on limited size sites, before more additions.

Findings: Building Capacities

Granbury ISD recently expanded its facilities to address space shortages. The district has isolated situations of overcrowding (Oak Woods Intermediate School) and of excess capacity, but most schools are effectively at their capacity. The district has limited excess capacity, in spite of recent construction and additions, because of growth, small and/or inadequate specialized instructional spaces, and a number of small classrooms in the district's classroom inventory. The district's limited excess capacity is also due to the growth in instructional support programs, responding to both regular program students' and special students' needs.

Currently, Granbury ISD has no collective space shortfall; however, Oak Woods Intermediate School is overcrowded, and most schools are at or very near their current capacities. Only Mambrino School and Acton Middle School have significant available space. The projected enrollment growth over the next 10 years will create an overall shortfall of about -1,083 pupils, or -87 classrooms.

If the district is to meet the housing shortfalls, Granbury ISD will need to enter another major construction and rehabilitation program in the immediate future. The actual program will most likely prioritize among the three to four new or replacement schools needed. In addition, refurbishing and some remodeling will need to be planned for the schools where age and system deterioration requires more attention to *control obsolescence*. The appropriate combination of facilities should be determined based on planning policies related to quality instructional environments for Granbury ISD's students.

About 63 percent of the district's inventory of teaching stations meet the current Texas state minimum standards or complementary national standards for classroom and support programs (these minimum state standards were effective for the first time in 1994). NOTE: The state minimum standards are currently under revision, and they will probably increase the amount of space recommended and/or required for the various instructional spaces when compared to the current standards.

Districts are not required to bring existing buildings up to these standards, except under certain circumstances. Generally, if major renovation is planned, local districts are required by law to meet all current standards. It also should be noted that state minimum standards allow districts to have smaller spaces if the governing body confirms that the student load in those classrooms will never exceed an appropriate reduced number of students. However, realizing that personnel (staffing) is the single greatest annual cost to a district and anticipating the 40–60 year life of a school, most governing boards find it inappropriate to handicap future boards and administrations by limiting room occupancy below a level that state staffing ratios will allow.

There are other issues that may impact the scope of improvements needed/required once a district begins to make improvements. There are various levels of improvement that will trigger additional requirements. Those requirements include:

- Handicapped accessibility (TAS)
- Building code requirements
- State/local fire marshals' requirements
- Commissioner's Rules regarding minimum sizes for instructional spaces
- Granbury ISD's educational program priorities

General Conclusions and Recommendations

The study team recommends that the following be considered:

1. Establish long-range policies/goals regarding school organization, school size, feeder patterns, attendance boundaries/changes, and busing.

2. Establish a policy regarding the use of temporary or portable buildings.

3. Develop educational program statements for each school organizational level; each should serve as guide for space needs.

4. Develop a facility master plan for Granbury ISD, addressing probable needs 20 or more years into the future and developing a specific plan for next 10 years. It is imperative that the plan be based on facility planning policies that are educationally appropriate and acceptable to the community, including:

    a. An educationally sound decision relative to the appropriate size of the high school(s), consistent with a feeder pattern that reflects support for the grades Early Elementary (EE)–12 instructional program

    b. Whether the current organizational pattern (grades EE–3, grades 4–6, grades 7–9, grades 10–12) or a revised organizational pattern is more educationally supportive for Granbury ISD

    c. Ensuring decisions regarding refurbishing and renovations are cost effective when compared to replacement facilities

    d. Ensuring reasonable and safe redevelopment or additions during ongoing use of the remaining facilities

e. Enlist the assistance of an educational planning consultant and/or a professional architect to help with the necessary programming, evaluations, and comparisons

5. Evaluate and determine the size of general classrooms needed to support differentiated instruction in Granbury ISD.

6. Evaluate all intermediate school facilities to determine their appropriateness for long-term use, including:

   a. Whether Oak Woods Intermediate School site can be expanded; necessary to remain in service for the regular instructional program

   b. Whether Crossland Intermediate School can be cost effectively renovated and expanded for either a grades EE–5 school or a larger grades 4-6 facility

   c. Whether Brawner Intermediate School will be more appropriately used as an interim secondary facility, as a partnered facility with Roberson Elementary School as a grades EE–5 school, or as an expanded grades 4-6 facility

7. Evaluate the existing high school facility for its best long-term use, including:

   a. A site/facility master plan, evaluating the reasonable life expectancy of the school's older components and the probable appropriateness of remodeling or replacing them in the next 20 years, and its reasonable maximum capacity with renovations/improvements.

   b. Determine the facility's most appropriate use in a split campus setting, a freshman/ sophomore type center or a junior/senior type center.

   c. A site/facility master plan that evaluates the entire site (high school and middle school) for its potential as a high school.

8. Refurbish the high school facility or construct a high school campus/component on a new site, consistent with the district's organizational and facility planning decisions.

9. Plan the use of all elementary and intermediate campuses, which are appropriate for long-term use, consistent with the district's organizational and facility planning issues.

10. Purchase sites and plan additional schools to accommodate needs in growth areas, and as replacement schools for any that need to be taken out of service (likely for Oak Woods Intermediate School and the Behavior Transition Center).

11. Plan expanded instructional space for the Behavior Transition Center and for a second S.T.A.R.S. Academy facility, potentially recycling buildings taken out of service for regular instruction (such as Oak Woods Intermediate School and Brawner Intermediate School).

12. Give particular attention to developing appropriate spatial relationships and student circulation patterns for schools where additions or redevelopment is considered.

13. Refurbish and renovate all schools on a regular schedule to maintain effective instructional support and to control and delay obsolescence.

14. Improve site access routes, traffic circulation and separation, and parking situations at all schools; create enough hard-surface spaces convenient to controlled entrances for daily use.

15. Provide adequate housing for all special needs programs at appropriate locations, especially those requiring self-contained environments. The district has too few such spaces, and those that exist are generally inadequate.

16. Provide a phased plan for making all schools handicapped accessible.

17. Make all buildings and improvements technology ready, according to Granbury ISD's technology plan.

18. Consolidate all central administrative services to a single location to improve management efficiency.

19. Transportation and maintenance facility is at capacity; consider relocating transportation to a larger site central to the district, for a phased relocation, and allow maintenance, warehousing, and related functions to expand on existing shared site.

20. With about 37 percent small and marginal academic classrooms, plan and evaluate alternatives that will support the use of three to five computers, providing enough space to support the district's vision of differentiated instruction.

In all of this, it should be noted that we encountered evidence that Granbury ISD has some very dedicated staff members offering a good educational environment in all the schools, including in those facilities that now limit and handicap the instructional program.

POPULATION PROJECTIONS

Background

The principal methodology used in enrollment forecasting is known as the cohort-survival method. The basic technique requires calculating the ratio of the number of students enrolled in a specific grade in one year compared to the number of students who survive and are enrolled in the next grade the following year, and is described in more detail in the *Preface* to this study.

A good population forecast is driven by assumptions. If the assumptions behind the forecast are considered reasonable and the methodology employed professionally acceptable, the forecast will represent a credible attempt to predict future school district enrollment for long-range planning purposes. Enrollment projection input is solicited from the local administration. Population and economic growth data from other local and regional sources also are examined to formulate appropriate growth assumptions.

Forecast Procedures

The projections for grades 1–12 were made by the cohort-survival method. This method is the most straightforward and commonly used method to produce projections of enrollment by grade. The underlying concept is quite simple. We assume that the children in grade G this year proceed to grade G+1 next year. The main complication is that some children may move into or out of the district. In addition, some children may skip grades or fail to move on to the next grade and some may drop out of school. Taking all this into account, we developed the following formula:

Children in grade G+1 next year = Children in grade G this year

+ Children in grade G this year that move into the district
- Children in grade G this year that moved out of the district
+ Children in lower grades this year that skip to grade G+1
- Children in grade G this year that failed to pass to grade G+1
- Children in grade G this year that drop out

It is customary to combine the last five terms of the equation into a single term. In a district that is growing, the sum of these terms will usually be positive, and we refer to this combined effect as a *growth component*. Thus, in practical terms we have the following simplified equation that governs the movement of children from grade to grade G+1:

Children in grade G+1 next year = Children in grade G this year

+ Growth Component for Transition from grade G to grade G+1

The growth components for the projections are estimated from past enrollment data supplied by the district. We used the following formula to estimate the growth components:

Growth Component for Transition from grade G to grade G+1 =

Students in grade G+1 this year - Students in grade G last year

Growth components were calculated for grades 1–12 and all years from 1990–91 to 2002–03. In general, the average of the past growth components was used to forecast future enrollments by grade. Individual growth components were computed for each school. Over the period of the past data, the district has made changes in the pattern of flow between the elementary and intermediate schools. Because of these discontinuities, it was sometimes necessary to estimate a growth component for a school based on a short sample.

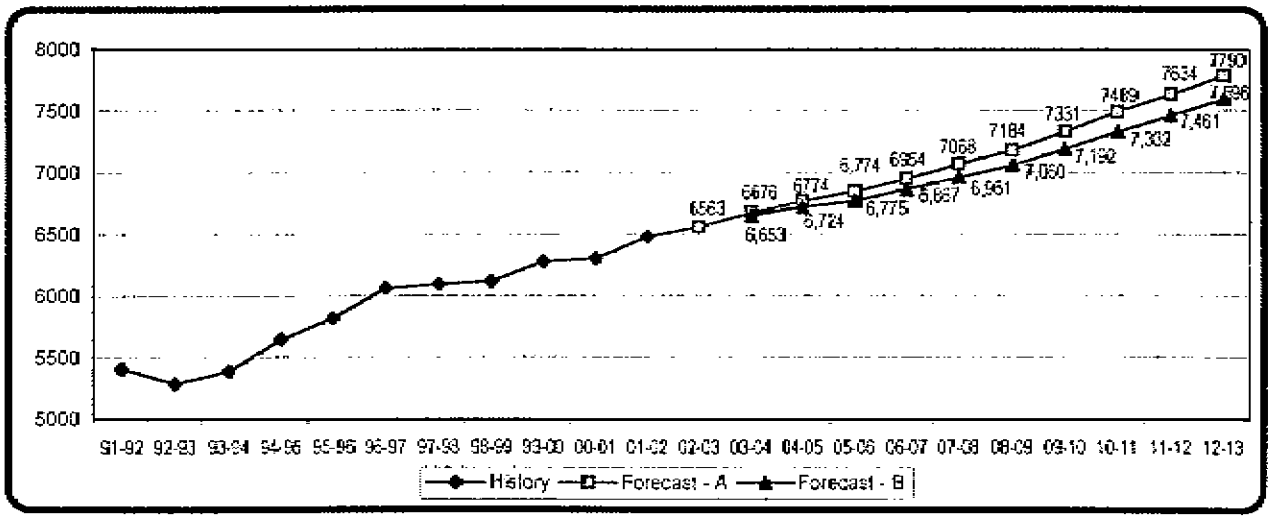
Pre-Kindergarten, EE (Early Elementary), Kindergarten enrollments, and the S.T.A.R.S. Academy's and the Behavior Transition Center's program enrollments were projected by straight-line extrapolation of past trends.

Population Forecasts

The history and projection for total district enrollment is shown in Tables 1 and 2. The average growth rate of total enrollment over the projection period is 1.7 percent per year, which is an average of 120 students per year of absolute growth. This growth rate is almost exactly the same as the historical growth rate over the five years of 1.7 percent. The 10-year historical growth rate was 2.2 percent, or an absolute average rate of 114 pupils per year. This higher growth rate was influenced by strong growth in the mid-1990s that has since abated, probably influenced by the peaking of the baby boom echo in Granbury ISD.

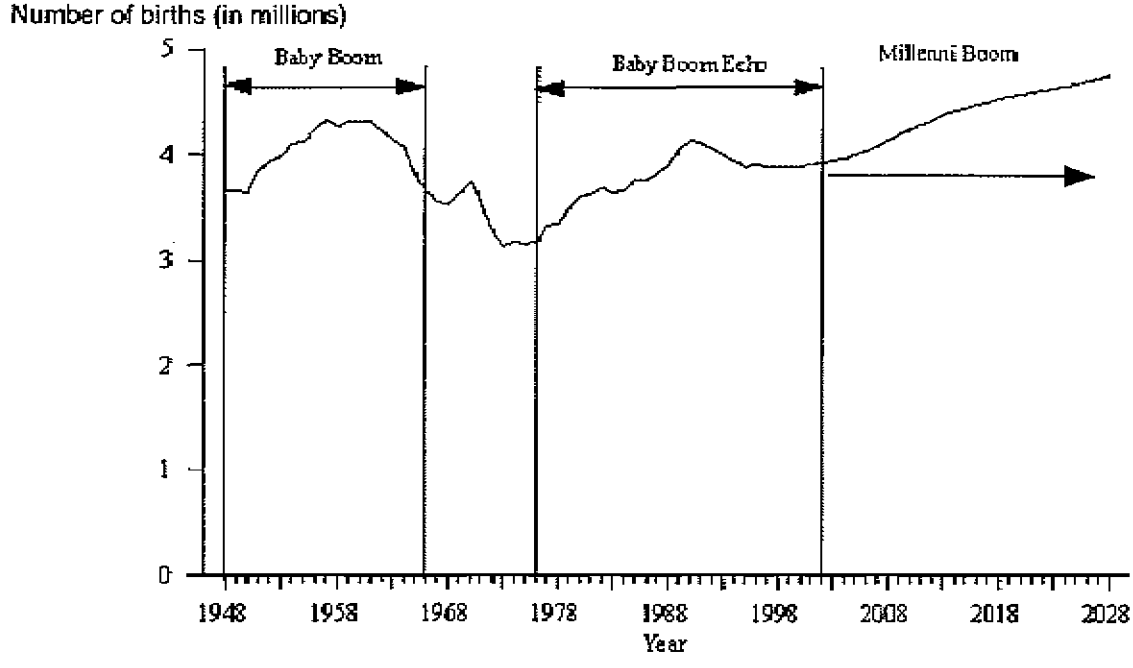
Table 2-A shows historical growth and tracks the forecast growth reflecting two scenarios, Alternate A, based on 10 years of historic growth, and Alternate B, based on 5 years of historic growth. The short-term growth areas in Granbury ISD will continue to be in areas more accessible and convenient to the Fort Worth metropolitan area, with primary access to Route 377.

Table 2-A
Growth Rate Forecasts Compared



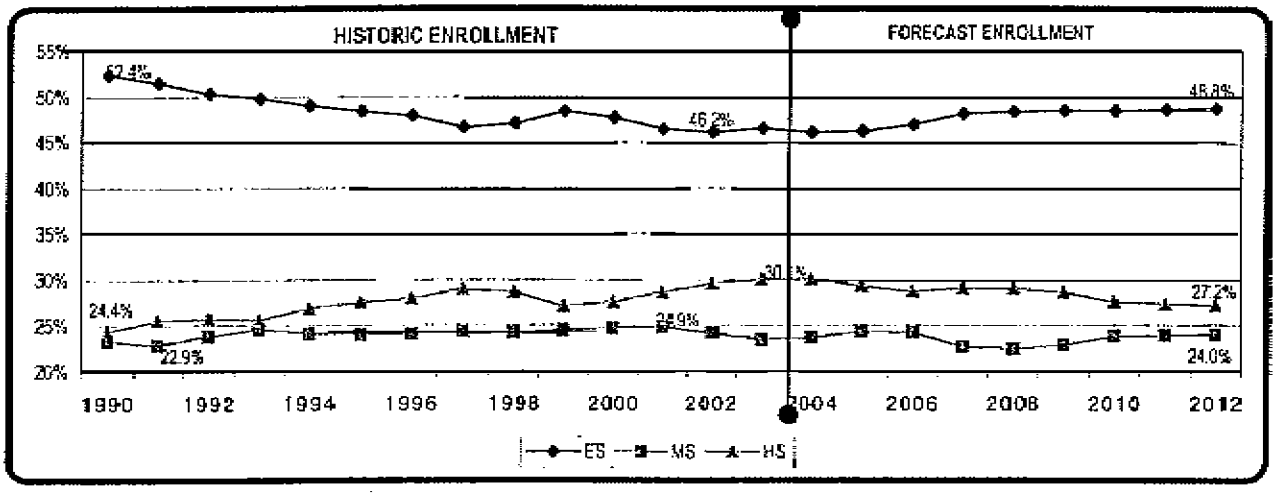
The growth trends reflect a temporary slowing of enrollment growth typical of the Baby Boom Echo. Larger groups of students have moved through the district schools. As the larger groups have moved through, enrollment has slowed over the short term, first at the elementary level and then in the secondary grades as they move out of the district and are replaced by relatively smaller groups. Nationally, that phenomenon has been tracked by tracing the number of live births occurring since 1948 and is shown in Table 2-B. Officials in the Census Bureau are forecasting a national upswing in live births, beginning at about this point in history. Some have coined the forecast increase in the number of live births as the Millenni Boom.

Table 2-B
National Baby Boom Echo



The probable influence of the Baby Boom Echo in Granbury ISD is reinforced by viewing the number of students at typical elementary (grades EE–5), middle school (grades 6–8) and high school (grades 9–12) grade levels as a percentage of the total number of students enrolled, both historically and through the projections. Tracking these groups in Granbury ISD suggests that the baby boom peaked at the elementary levels about 12 to 14 years ago, and that wave of larger groups are exiting the high school at this point in history. Table 2-C tracks the percent of total students enrolled and identifies the highest and lowest percent and the ending percent of total students at all three levels, from 1990–91 through the forecast period.

Table 2-C
Baby Boom Echo Trends in Granbury ISD

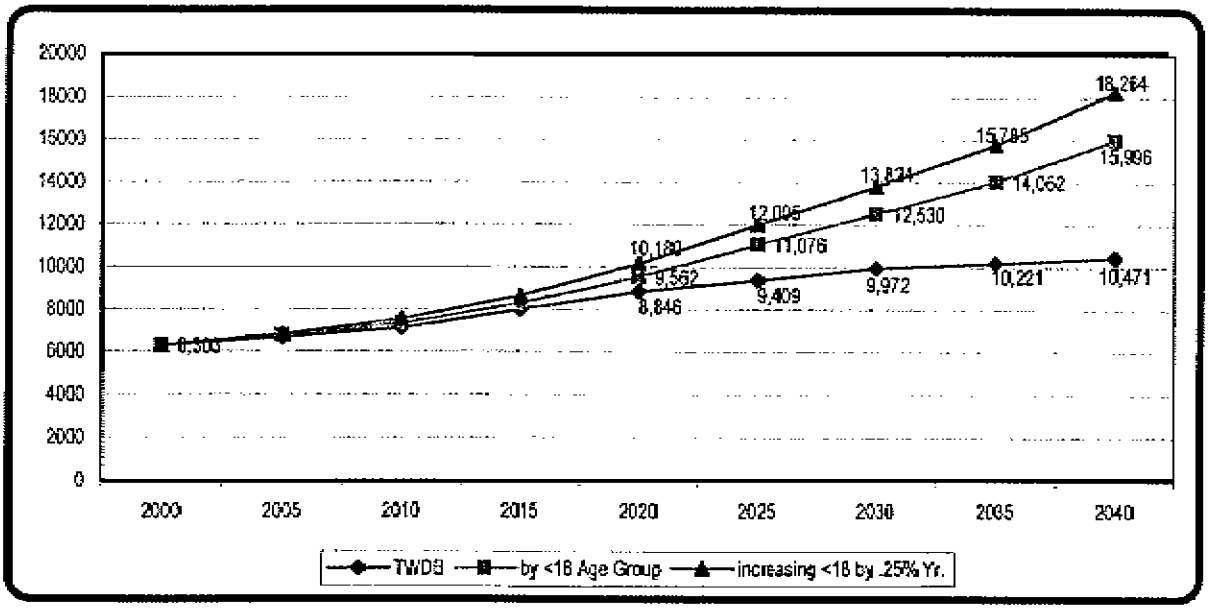


Longer-term enrollment trends have been evaluated based on data from the two sources of data developed currently by state supported agencies, the Texas State Data Center (TSDC) at Texas A&M University and the Texas Water Development Board (TWDB). Both forecast county growth patterns through 2040 and 2050, respectively, while the Texas Water Development Board also forecasts city growth for the period. The Texas State Data Center forecasts population patterns by both age groups and ethnic groups, utilizing the cohort survival procedure based on the county growth patterns between 1990 and 2000. For the purpose of this glimpse into the future Granbury ISD enrollment patterns, this study used the census data reported under the "Under 18 (<18)" age group. This analysis specifically deals with the subgroup between ages 5 and 17 as the best available age subgroup to compare to the school-age children in Granbury ISD. The actual historic enrollment for that age group from 1990 and 2000 census data was compared to the actual enrollment in Granbury ISD for the same years.

The ratio of Granbury ISD students to the county population between ages 5 and 17 was developed, and that ratio was applied to the forecast size of the <18 age group through 2040. That forecast is illustrated by the category titled "<18 Age Group" and reported on Table 2-D. This procedure assumes that the percent of total Hood County population living in Granbury ISD will remain constant over the 40-year period. It is more likely that the growth patterns will saturate the land area in the county (and Granbury ISD) that is closer and more accessible to metropolitan Fort Worth. To reflect that probability, the percent of total Hood County population living in Granbury ISD was increased over the 40-year period. The example increases the percent of the county's population living in the northeastern part of the county (Granbury ISD) from about 65 percent of the total population to about 75 percent over the 40 years. That increase represents a shift in total population of about 2.5 percent every five years, or about .25 percent each year, and is represented by the category titled "Increasing <18 by .25% Yr." on the following table.

Similar methodology was applied to the forecasts produced by the Texas Water Development Board. The TWDB has forecast slower county growth during the period, to about 86,000 population versus to over 129,000 population in 2040. Thus the TWDB would increase the number of students in the district at a slower rate (titled "TWDB" on Table 2-D).

Table 2-D
Long-Term Growth Trends



As a point of comparison, a growth rate averaging two percent per year would result in a student enrollment of about 13,250 by the year 2040.

Detailed enrollment projections by grade and grade level organizations currently being considered are contained in Tables 3-A through 3-G. The forecasts are reported by grade level *only*, rather than by school, because of the recent reorganization of grade levels within the district and evaluations underway to further reorganize. Given this study of possible reorganization, longer-term growth trends reported above are expected to be of more use for long-term planning in Granbury ISD than school-by-school forecasts. Furthermore, the school-by-school forecasts would have a low level of reliability even without additional reorganization occurring, as the district has both reorganized and redistricted schools within the last few years.

Table 3-A
Ten-Year Forecast
Elementary School Grades (Grades EE–3)

Year	EE	PK	K	1	2	3	TOTAL
2002–03	27	124	473	437	457	501	2,019
2003–04	28	127	484	510	428	468	2,044
2004–05	28	130	494	521	499	439	2,111
2005–06	29	132	505	532	510	512	2,221
2006–07	29	135	516	544	522	523	2,270
2007–08	30	138	528	556	533	535	2,321
2008–09	31	141	540	569	545	546	2,372
2009–10	31	145	552	581	557	559	2,425
2010–11	32	148	564	594	570	571	2,479
2011–12	33	151	576	607	582	584	2,534
2012–13	34	154	589	621	595	597	2,590

Table 3-B
Ten-Year Forecast
Elementary School Grades (Grades EE– 5)

Year	EE	PK	K	1	2	3	4	5	TOTAL
2002–03	27	124	473	437	457	501	527	484	3,030
2003–04	28	127	484	510	428	468	516	547	3,107
2004–05	28	130	494	521	499	439	482	536	3,129
2005–06	29	132	505	532	510	512	452	501	3,174
2006–07	29	135	516	544	522	523	527	469	3,266
2007–08	30	138	528	556	533	535	538	547	3,406
2008–09	31	141	540	569	545	546	550	559	3,482
2009–10	31	145	552	581	557	559	563	572	3,559
2010–11	32	148	564	594	570	571	575	584	3,638
2011–12	33	151	576	607	582	584	588	597	3,719
2012–13	34	154	589	621	595	597	601	611	3,802

Table 3-C
Ten-Year Forecast
Intermediate School Grades (Grades 4–6)

Year	4	5	6	TOTAL
2002–03	527	484	492	1,503
2003–04	516	547	496	1,559
2004–05	482	536	561	1,579
2005–06	452	501	549	1,502
2006–07	527	469	513	1,509
2007–08	538	547	481	1,567
2008–09	550	559	561	1,671
2009–10	563	572	573	1,708
2010–11	575	584	586	1,746
2011–12	588	597	599	1,784
2012–13	601	611	612	1,824

Table 3-D
Ten-Year Forecast
Middle School Grades (Grades 6–8)

Year	6	7	8	TOTAL
2002–03	492	542	556	1,590
2003–04	496	517	549	1,562
2004–05	561	521	524	1,606
2005–06	549	590	528	1,667
2006–07	513	577	598	1,688
2007–08	481	540	585	1,605
2008–09	561	505	547	1,613
2009–10	573	589	512	1,675
2010–11	586	602	597	1,786
2011–12	599	616	611	1,825
2012–13	612	629	624	1,866

Table 3-E
Ten-Year Forecast
Junior High School Grades (Grades 7–9)

Year	7	8	9	TOTAL
2002–03	542	556	624	1,722
2003–04	517	549	643	1,709
2004–05	521	524	635	1,680
2005–06	590	528	606	1,723
2006–07	577	598	611	1,785
2007–08	540	585	691	1,815
2008–09	505	547	676	1,728
2009–10	589	512	632	1,734
2010–11	602	597	592	1,792
2011–12	616	611	690	1,917
2012–13	629	624	706	1,959

Table 3-F
Ten-Year Forecast
High School Grades (Grades 9–12)

Year	9	10	11	12	TOTAL
2002–03	624	500	439	380	1,943
2003–04	643	493	474	397	2,007
2004–05	635	507	467	429	2,039
2005–06	606	501	481	423	2,011
2006–07	611	478	475	435	2,000
2007–08	691	482	453	430	2,056
2008–09	676	545	457	410	2,089
2009–10	632	534	517	414	2,097
2010–11	592	499	506	468	2,065
2011–12	690	467	473	458	2,089
2012–13	706	545	443	428	2,122

Table 3-G
Ten-Year Forecast
High School Grades (Grades 10–12)

Year	10	11	12	TOTAL
2002–03	500	439	380	1,319
2003–04	493	474	397	1,364
2004–05	507	467	429	1,404
2005–06	501	481	423	1,405
2006–07	478	475	435	1,389
2007–08	482	453	430	1,366
2008–09	545	457	410	1,413
2009–10	534	517	414	1,464
2010–11	499	506	468	1,473
2011–12	467	473	458	1,399
2012–13	545	443	428	1,416

The long-term implications for decisions relative to Granbury High School are significant. Any new construction intended to address growth at the high school, whether it takes the form of housing for the ninth grade separately or for a larger facility to include the ninth graders on a high school campus, should consider the long-term implications of those improvements related to future high school growth. Any new construction contemplated should have a life expectancy of 40–60 years. It is critical to view that construction in light of reasonable and realistic growth within the district during the life span of the new construction.

Table 3-G is intended to help understand that potential and create a framework within which decisions will be made. Table 3-G illustrates a number of scenarios; it reflects the potential size of the high school for each of the three long-term enrollment forecasts presented in Table 2-D. Within each of those forecasts, two additional iterations are presented. The high school enrollment is forecast for both a grades 9–12 organization and a grades 10–12 organization (which assumes the ninth grade is housed on a separate campus or remains at middle schools). Each is also forecast, reflecting the high school's percent of total enrollment at both its highest and lowest points since 1990.

It also should be noted that the grades 10–12 organization forecasts on Table 3-G include some students classified as freshmen; specifically, those freshmen from the previous year who did not successfully complete enough credits to become classified as sophomores in the current year. During the last two years, that number has represented an average of 11.9 percent of Granbury High School's total student population.

Table 3-H
Ten-Year Forecast
Long-Term Trends, High School Enrollment

			Year	TWDB	TSDC	TSDC +.25%
9-12 HS Enrollment	high	30.1%	2010-11	2,140	2,207	2,265
			2020-21	2,663	2,878	3,064
			2030-31	3,002	3,772	4,161
			2040-41	3,152	4,815	5,498
	low	24.4%	2010-11	1,735	1,789	1,836
			2020-21	2,158	2,333	2,484
			2030-31	2,433	3,057	3,373
			2040-41	2,555	3,903	4,457
	2012-13 % of Total -	27.2%				
10-12 HS Enrollment	high	24.8%	2010-11	1,763	2,064	2,118
"Freshamore" Adjusment Factor	113.5%		2020-21	2,193	2,692	2,866
			2030-31	2,473	3,528	3,892
			2040-41	2,596	4,503	5,142
	low	19.4%	2010-11	1,382	1,617	1,660
			2020-21	1,719	2,109	2,246
			2030-31	1,937	2,764	3,049
			2040-41	2,034	3,528	4,029
	2012-13 % of Total -	24.6%				

Certain conclusions are appropriate. First, because of ever changing grade-level group sizes, planning should allow for the higher ratios of school enrollment to total enrollment. In the 40- to 60-year lifespan of new school construction, the higher ratios will likely occur two or more times. Second, given the regional and national lifestyle and migration patterns, the pattern of growth will more likely increase over time and exceed any of the forecasts during the 60-year life of new school buildings. Third, the life expectancy of the facility currently housing the high school program has significant elements that are about 35 years old; the reasonable remaining life expectancy of those elements is probably no more than 15–20 more years.

Given these parameters and unless an entirely separate ninth grade campus is determined to be the best long-term solution regardless of the existing inventory of school buildings, then the issue that must first be addressed relates to the maximum range of size desired for a good high school program. That will obviously impact decisions relative to high school site(s) and the most appropriate short-term use of the existing high school campus, along with any improvements contemplated for that campus.

The study team would like to call attention to two additional issues. Most school districts must expect to only approximate desired school organizational and school size goals at times in its history, but the decisions made should always reflect the organization and size goals that have been established. Also, the majority of school districts that have used ninth grade centers at one

time have eventually reorganized the high school grades into grades 9–12 campuses. In some cases, ninth grade students have been in separate buildings or wings, but they generally have safe and easy access to the common functions (library, cafeteria, etc.) and specialized shared functions (gyms and athletic facilities, fine arts facilities, some vocational facilities, etc.), in part to avoid duplication in facilities and staffing.

CONDITION OF EXISTING FACILITIES

Background

Information on the gross amount of school facilities such as square footage of buildings, number of rooms, or type of special rooms is useful but inadequate by itself for determining the functionality and usability of the actual school plant. A more exact description in terms of physical features, educational features, and site features is required. Accordingly, an on-site survey of the entire school plant has been made and analyzed relative to the facility's capabilities and needs. In the context of this report, the term *facility* refers to both the school buildings and the school site.

The survey instrument used for evaluating school buildings is based on nationally recognized standards and is specifically adapted to Texas standards, regulations, and recommendations. It consists of 105 questions that evaluate the six functional characteristics of an educational facility (both buildings and site). The characteristics are (1) educational adequacy, (2) health and safety, (3) accessibility, (4) efficiency, (5) flexibility, and (6) appearance. It evaluates the school on a theoretical 1,000 point value score, weighing each of these characteristics of school plant and site. More than half the total value score (535 points of 1,000) is assigned to the educational features of the facility. The remaining 465 points are assigned to the site (205) and the general features (260).

Both the survey instrument's weighted functional characteristic scores and Facility Composite Score are translated into percentage scores for comparison. The Facility Composite Score represents the facility's total score of all six functional characteristics. The Facility Composite Score is valuable in assessing how well the facility serves the educational needs of the learners through the program being offered. A more detailed explanation of the survey instrument and survey procedures is found in the *Preface* and the Appendix (for definitions of the six characteristics, see the Appendix).

Granbury ISD Schools

Planning for space needs is a continuing process, based on current and projected student needs. Planning for space needs also must be consistent with the community's aspirations for its youth and the resources available to accommodate those aspirations and needs. The evaluations of the district's schools are typical of Texas schools; the newer schools generally score well and the older schools score as marginal or with serious needs that may dictate replacement.

In the case of Granbury ISD, with 10 schools serving the regular education program and 2 locations for specialized alternative programs, 8 fall within the good range, 3 schools fall within the marginal ranges needing at least major rehabilitation, and 1 facility where full refurbishing or replacement is most likely appropriate within the next 10-year cycle. Behavior Transition Center (54.8 percent) scores the lowest and has the relative greatest needs. Granbury High School (55.4 percent), Crossland Intermediate School (68.7 percent), and Oak Woods Intermediate School (68.9 percent) all fall within the category indicating that, at a minimum, major rehabilitation is needed. On the other hand, 4 of the district's schools have improved their scores since the earlier 1998

study conducted in much the same format. Those schools include Acton Elementary School (73.2 percent), Baccus Elementary School (77.1 percent), Roberson Elementary School (76.9 percent), and Mambrino School (80.1 percent). Three new schools have been put in service, the two middle schools and the S.T.A.R.S. Academy. Granbury Middle School (90.8 percent) and Acton Middle School (86.9 percent) score well. The S.T.A.R.S. Academy (73.2 percent) serves a specialized voluntary credit-recovery program. Its new facility scores disappointingly low; it is smaller than appropriate, with some marginally small spaces and too few spaces to adequately support the program. In addition, the program's need appears to be greater than the single facility at this size can support.

The district's oldest and most inadequate facility, the old Granbury Intermediate School, has appropriately been taken out of service for regular instructional use. It has been converted to some specialized uses, including central administration.

In terms of regular program schools, Granbury High School is in the greatest need; it is overcrowded, even with the ninth grade temporarily located at the new middle schools. This campus is a blending of a 28-year-old basic facility, with additions 18 years ago and more in-fill additions 6 years ago. Most of the spaces are as originally built, with minimal updating. The site also houses competition athletic venues and is traversed by a major drainage channel; the site size and the siting of improvements offer very limited options for any expansion.

All of the facilities serving the intermediate grades (now grades 4–6) have relatively significant needs. In the cases of Crossland Intermediate School and Brawner Intermediate School, the need is primarily making modifications to convert the facilities from middle school programs to intermediate school programs. Both have more specialized spaces than the program requires; suggesting changes in function. Crossland Intermediate School has substantially smaller general classrooms that also need to be expanded when any improvements are considered. Oak Woods Intermediate School reflects the inherent problems related to a facility that is too small on a site that is also too small for the program and appears to have no real option for expansion. The needs are exacerbated by some disappointing problems with the facility itself.

The four schools where the scores have remained relatively stable or increased since the 1998 study reflect the additions to three elementary school facilities (Acton, Baccus, and Roberson Elementary Schools), and a 15 percent reduction in student load at the Mambrino School (about 120 fewer students) through redistricting and the addition of a fourth intermediate-level facility. The older elements of the schools with additions have had some face-lifting and modest improvements, and are in need of complete updating of systems and functional design.

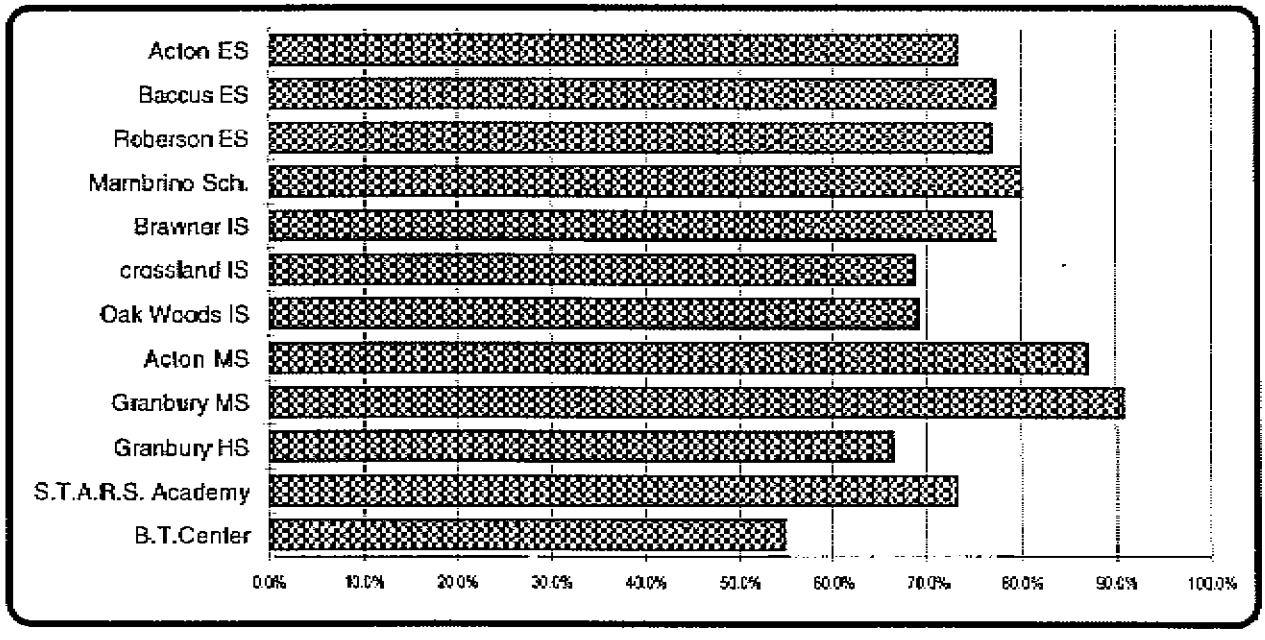
The two newest schools, Acton and Granbury Middle Schools, score highest of all schools, with Acton Middle School scoring at the upper end of the good scale and Granbury Middle School scoring just within the excellent scale. Both facilities appear to have been designed for grades 6–8 middle school programs; both were evaluated primarily for that program and both will certainly serve those programs best. The decision to add the ninth grade appears to have been made after the design was complete, as the facilities do not meet some ninth grade space standards and programmatic needs. Although the schools are virtually identical, Acton Middle School scores lower primarily because of site-related issues (marginally *blind* access, site stability, and site drainage).

Regarding possible major renovations of school buildings, a common guide to school boards is this: if significant rehabilitation is needed, the expenditure should make the building educationally functional for 20 or more additional years. However, if the rehabilitation costs more than 50 percent of replacement cost, then the investment will probably be better placed in a new facility. This guideline assumes that the building's life will be extended by 20 to 25 years, but probably not more than that. Some construction professionals suggest that no more than 65 percent of replacement cost should be spent on an existing building. Also, recognize that renovations do require a significantly larger contingency; generally 25–35 percent is advisable on major remodeling, especially because building plans and utilities plans are no longer available for older schools in most school districts; also, plans are often not updated to reflect changes made over the years. When in question, it will be better to err on the side of replacement versus rehabilitation and remodeling, as those who have experienced remodeling report that the costs almost always exceed estimates.

In any case, the operating costs of the resulting facility also should be taken into consideration, both from the maintenance/operations perspective, as well as the program staffing perspective. Decisions made without considering these issues can generate additional unanticipated costs.

The Facility Composite Score for each regular program administrative unit is reported in the following table:

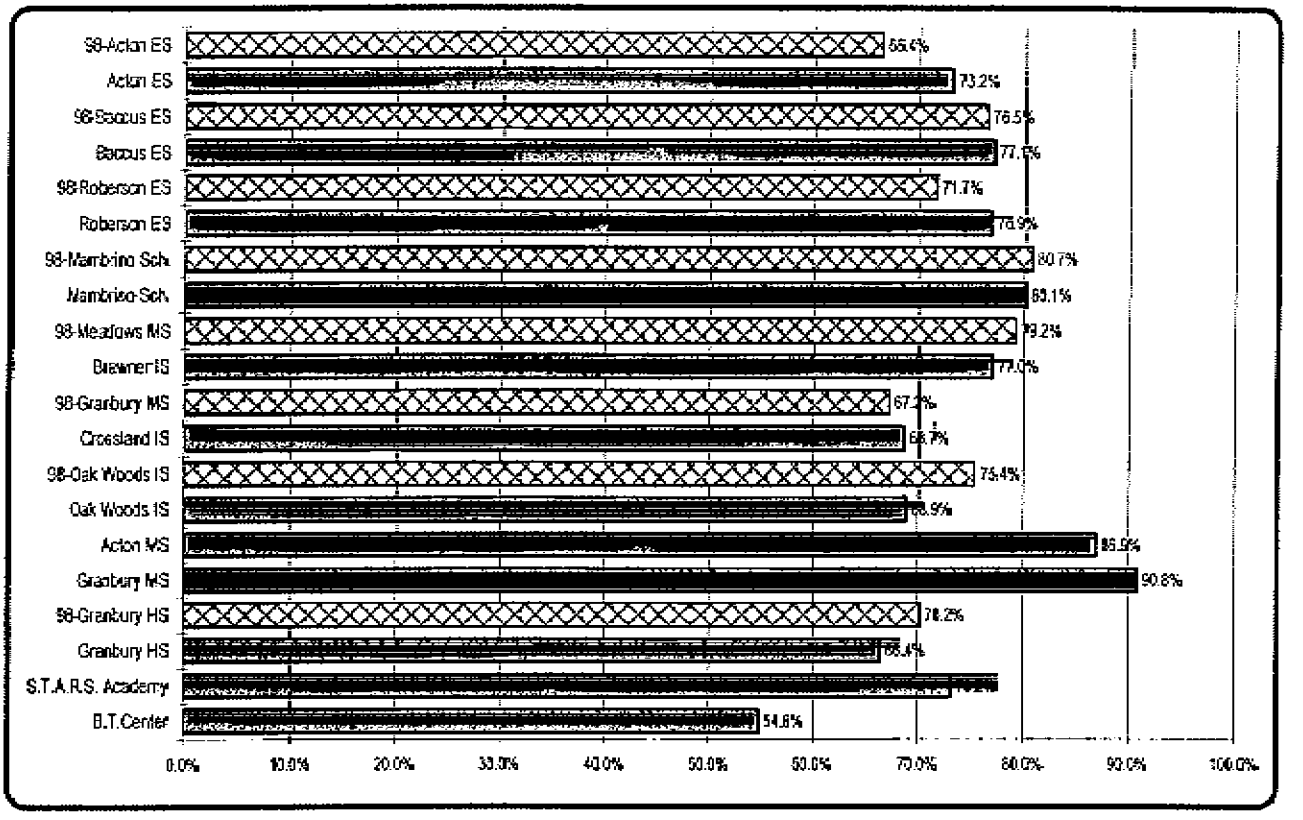
Table 4-A
Facility Composite Scores, 2003



The scores of the respective schools are compared to their scores in the earlier study of 1998, using the same basic methodology and instruments. Relative scores for each school are next to the other score. Given the intervening period, and without significant instructional program changes or refurbishing, one should expect the score of a school to decline about five percentage points,

from normal deterioration and wear-and-tear. Facilities that have been overcrowded during the period or have excessive student loads or significant program changes may have deteriorated more rapidly.

Table 4-B
Facility Composite Scores Compared: 1998 and 2003

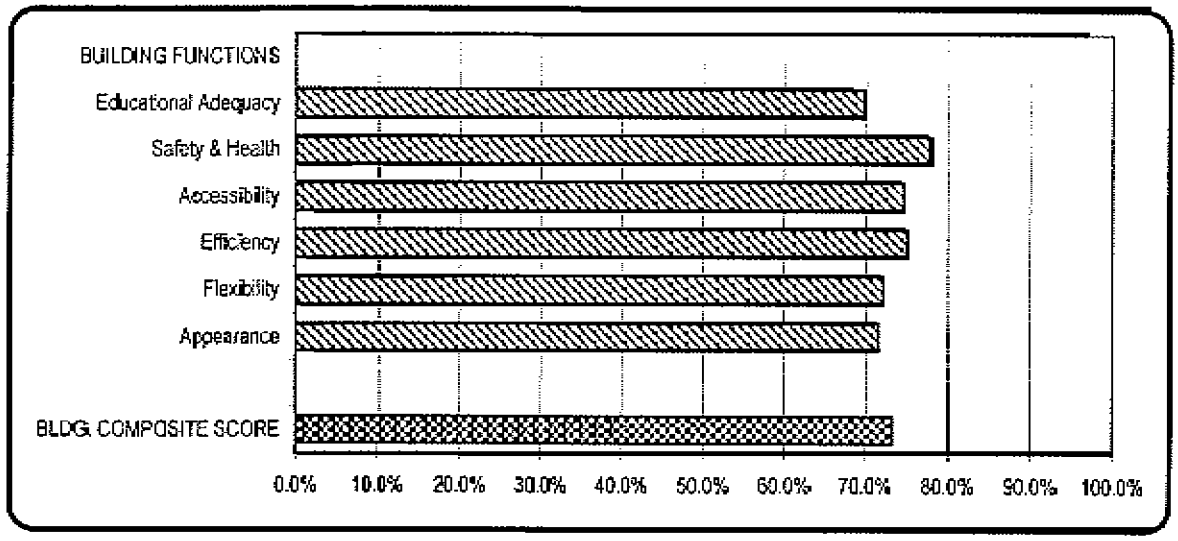


The profiles of the schools that follow are a quick reference for each facility. The chart presents a summary of the six functional characteristics and the composite score for each, and provides a graphic view of the relative strengths and weaknesses of the facility as an educational support tool as observed during the on-site inspections.

It must be kept in mind that the ratings are based on the consultant's professional observations about the particular facility and are objectively judgmental. These profiles can be used to assist with setting priorities for overall district facility improvements in the context of further study by the district and in light of existing financial resources. *The two most significant functional characteristics relative to long-term use of facilities are the subscores for both the educational adequacy and flexibility components.* If these scores both fall below the sixtieth percentile, it is often a hallmark of a facility that may not justify the investment needed to support long-term use, especially if these two categories also score below the composite score of the facility being evaluated.

Some deficiencies noted in the Comments section for each facility may already be scheduled for correction by the district.

Table 5-A
School Plant Profile
Acton Elementary School



KEY

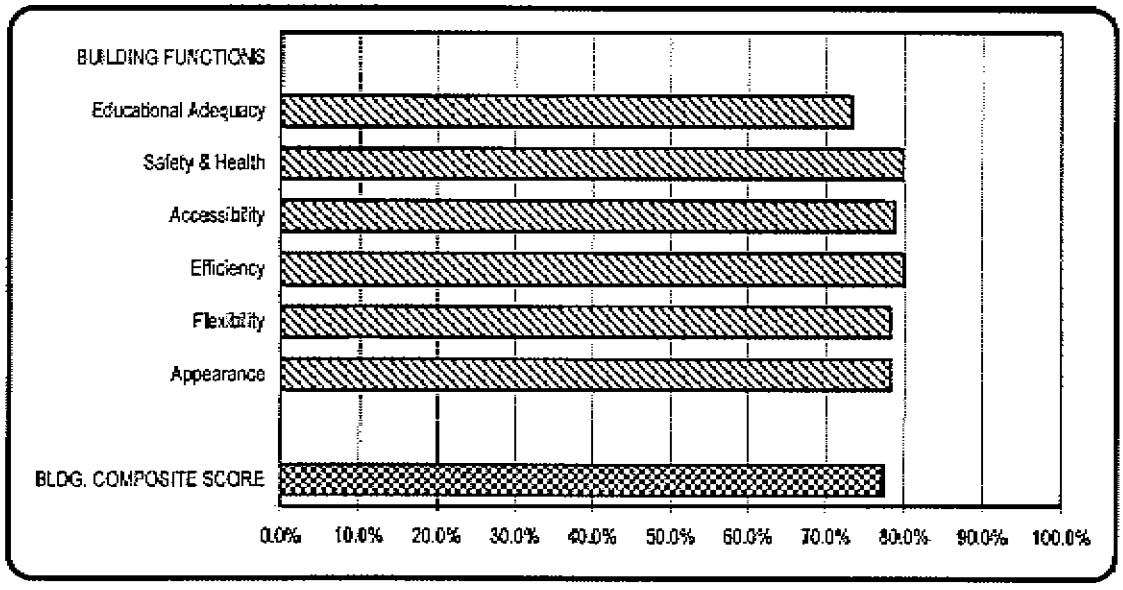
90–100%	A school facility of exceptional quality.
70–89%	Serves program well; some minor or component improvements needed.
60–69%	Facility needs substantial or major rehabilitation.
46–59%	Complete renovation or replacement; a detailed study may be needed.
00–45%	Abandon and/or replace the facility.

COMMENTS/DEFICIENCIES:

- Built on a site of approximately 34 acres that is separated into two parcels by an active street; school occupies about 10 acres of available land; larger parcel houses the new S.T.A.R.S. Academy facility.
- Site has drainage issues, especially on front side, with erosion in drainage ditches and around pipe culverts. Soils not conducive to hardy grass on playfields.
- Parking lot design by cafeteria is unsafe, as it is contiguous to street surfaces; the surface is generally not designed to carry the load of heavy bus traffic. Parking lot and street functions are not adequately designated and separated by curbing or striping to provide safe situation for pedestrians and vehicles.
- A 25-year-old school in need of some added fixture, finishes, and systems rehabilitation.
- The 2000 classroom addition is a good space that meets state minimum standards for grades EE–1 (11 rooms) and grades 2–5 (14 rooms); unfortunately, spaces do not meet Granbury ISD's programmatic needs related to space for technology and differentiated instruction.
- Some walls were removed in the original 25-year-old facility, creating some very spacious grades EE–1 classrooms, plus an expanded library and an art lab; basic finishes were generally refurbished.

- The 1991 addition, between original 1975 building and the 2000 addition, remained as originally configured, with some refurbishing.
- The older elements need added refurbishing, including electrical and mechanical systems (primarily plumbing), hardware, etc; limited areas need complete updating.
- Before additional updating is undertaken, evaluate spatial relationships for the programs to be housed, and locate functions more appropriately in relation to findings of that evaluation, particularly as it relates to appropriate uses of the space and rooms adjacent to the pit (Activity Center).
- Some specialized instructional spaces remain small and inadequate for the program, including the computer lab and the music room; the library meets the former standard, but is small when compared to the newly revised state standards, as well as the programming needs of Granbury ISD's instructional program.
- Facility does not have sufficient suitable space for administration, special programs, itinerant programs, staff, Admission, Review, and Dismissal (ARD) committee conferences, parent groups, etc.; the kitchen would benefit significantly from a second serving line to facilitate feeding students in a timely manner.
- The gym is marginally small; functions adequately for primary students and for groups of 30 or fewer; is in need of adequate storage, as equipment is stored on perimeter walls of play area. This facility will not be adequate for a grades EE–5 program, or a program that schedules 35 or more students into the facility at the same time.

Table 5-B
School Plant Profile
Baccus Elementary School



KEY

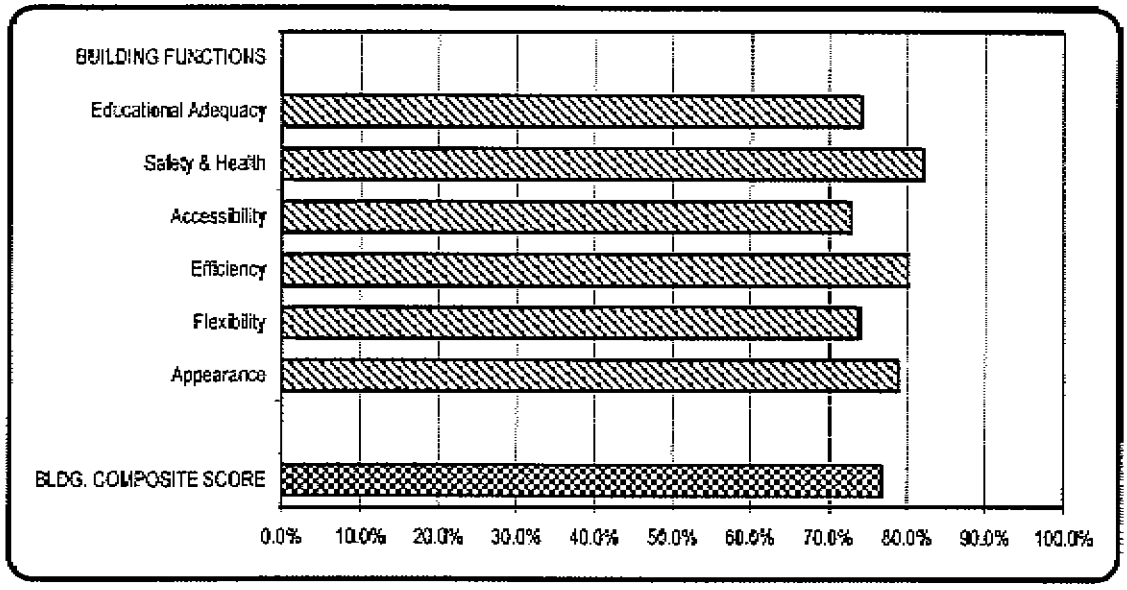
90–100%	A school facility of exceptional quality.
70–89%	Serves program well; some minor or component improvements needed.
60–69%	Facility needs substantial or major rehabilitation.
46–59%	Complete renovation or replacement; a detailed study may be needed.
00–45%	Abandon and/or replace the facility.

COMMENTS/DEFICIENCIES:

- Located on a 58.45-acre site, it is now directly accessible from Avery Road. Site is large enough to support a second administrative unit; access and functionality will improve if/when second access is developed.
- Parking has been expanded since prior evaluation. Site reasonably well drained; soils not supportive of good grass cover on playfields.
- Some walls were removed in the original 16-year-old facility, creating classrooms that meet state minimum space standard for grades 2 and up, plus an expanded library, music room, and an art lab; basic finishes were generally refurbished.
- The older elements need added refurbishing, including electrical and mechanical systems (primarily plumbing), hardware, etc; limited areas need complete updating. Even with the refurbishing associated with enlarging small classrooms in the original building, lighting levels are marginal, especially on teaching walls (white boards, etc.).
- Before additional updating is undertaken, evaluate spatial relationships for the programs to be housed and locate functions more appropriately in relation to findings of that evaluation, particularly as it relates to appropriate uses of the space adjacent to the cafetorium.

- The Preschool Program for Children with Disabilities (PPCD) special education unit needs appropriately located increased space for preschool life skills functions, with fully accessible restroom containing cleanup shower and changing table, and Occupational Therapy/Physical Therapy (OT/PT) area; this will absorb the approximate equivalent of two smaller classrooms (totaling 1,200–1,400 square feet).
- The 2000 classroom addition is a good space that meets state minimum standards for grades EE–1 (11 rooms), ranging in size from about 805–815 square feet; all rooms in addition have good casework and sinks. These rooms will prove to be flexible and useful for many years.
- Active parent volunteer program is in need of a permanent adequate work/break area.
- Some specialized instructional spaces remain small and inadequate for the program, including the computer lab; the library meets the former standard, but at 2,480 square feet it is quite small when compared to the newly revised state standards, as well as the programming needs of Granbury ISD's instructional program. The program is in need of a second computer lab.
- Facility does not have sufficient suitable space for administration, special programs, itinerant programs, staff, ARD conferences, technology repairs, parent groups, etc. Often empty classrooms are used, which may not be available as district grows.
- The gym is marginally small; functions adequately for primary students and for groups of 30 or fewer; is in need of adequate storage, as equipment is stored on perimeter walls of play area. This facility will not be adequate for a grades EE–5 program or a program that schedules 35 or more students into the facility at the same time.

Table 5-C
School Plant Profile
Roberson Elementary School



KEY

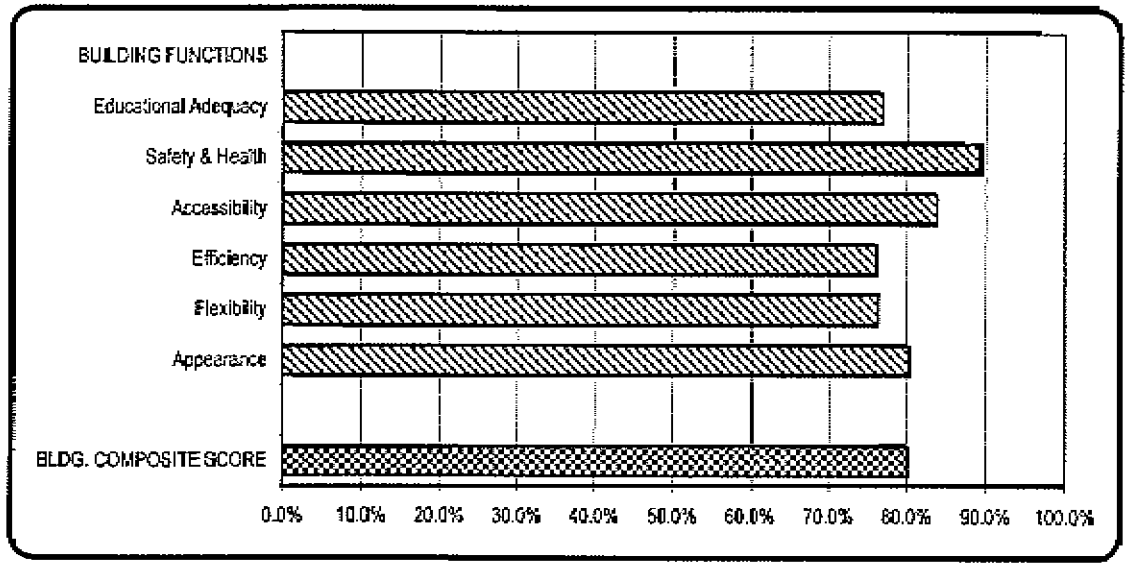
90–100%	A school facility of exceptional quality.
70–89%	Serves program well; some minor or component improvements needed.
60–69%	Facility needs substantial or major rehabilitation.
46–59%	Complete renovation or replacement; a detailed study may be needed.
00–45%	Abandon and/or replace the facility.

COMMENTS/DEFICIENCIES:

- Located on a 10.02-acre site on Misty Meadow; site is marginally small for elementary school use, below the Texas Education Agency (TEA) recommended acreage of 15–16 useable acres.
- Parking has been expanded since prior evaluation. Site has some drainage issues at the back side of the building; soils appear to be not supportive of good grass cover on playfields. Playground is not handicapped accessible due to steep access ramp.
- A sister plan to Baccus Elementary School, this 18-year-old building has had an addition and renovations much like those at Baccus Elementary School. It has had some walls removed in the original facility, creating classrooms that meet state minimum space standard for grades 2 and up, plus an expanded library, music room, and an art lab; basic finishes were generally refurbished with these changes.
- The older elements need added refurbishing, including electrical and mechanical systems (primarily plumbing), hardware, etc; limited areas need complete updating. Even with the refurbishing associated with enlarging small classrooms in the original building, lighting levels are marginal, especially on teaching walls (white boards, etc.).

- Before additional updating is undertaken, evaluate spatial relationships for the programs to be housed, and locate functions more appropriately in relation to findings of that evaluation, particularly as it relates to appropriate uses of the space adjacent to the cafetorium.
- Life Skills special education unit needs appropriately located classroom for program, with fully accessible restroom containing cleanup shower and changing table, and OT/PT area; this will absorb the approximate equivalent of two smaller classrooms (totaling 1,200–1,400 square feet).
- Deaf education classroom has similar space needs as Life Skills, although the need can probably be met in a somewhat smaller space, the equivalent to about 1.5 classrooms, including accessible restroom with changing table and cleanup, storage, etc.
- The 2000 classroom addition is a good space that all meet state minimum standards for grades EE–1 (11 rooms), ranging in size from about 805–815 square feet; all rooms in addition have good casework and sinks. These rooms will prove to be flexible and useful for many years.
- Some specialized instructional spaces remain small and inadequate for the program, including the computer lab; the library meets the former standard, but at 2,480 square feet is quite small when compared to the newly revised state standards, as well as the programming needs of Granbury ISD's instructional program. Program in need of second computer lab.
- Facility does not have sufficient suitable space for administration, special programs, itinerant programs, staff, ARD conferences, technology repairs, parent groups, etc. Often empty classrooms are used, and may not be available as district grows.
- The gym is marginally small; functions adequately for primary students and for groups of 30 or fewer; is in need of adequate storage, as equipment is stored on perimeter walls of play area. This facility will not be adequate for a grades EE–5 program or a program that schedules 35 or more students into the facility at the same time.

Table 5-D
School Plant Profile
Mambrino School



KEY

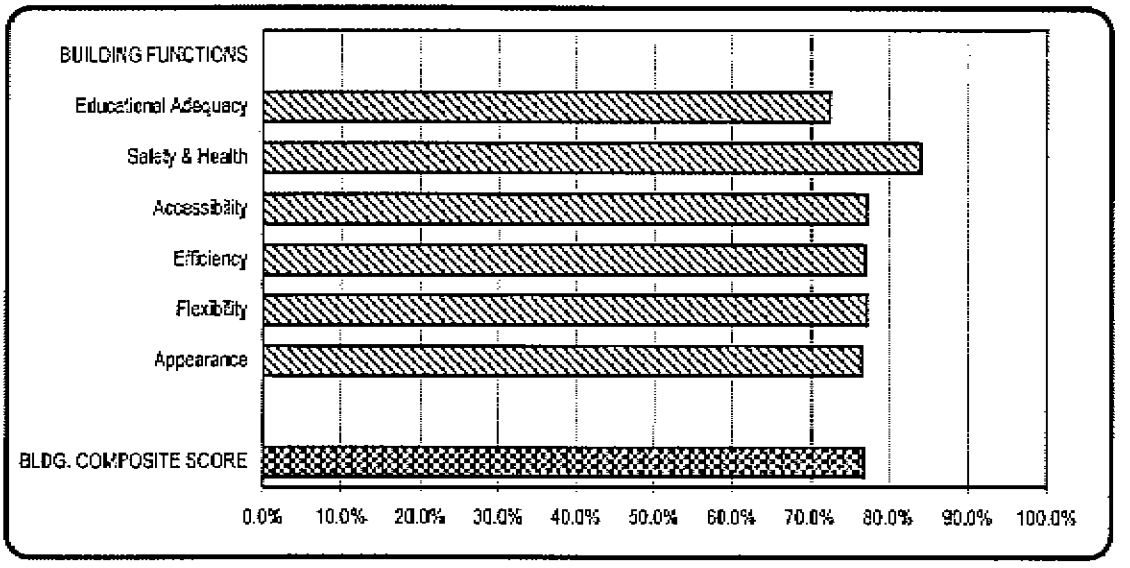
90–100%	A school facility of exceptional quality.
70–89%	Serves program well; some minor or component improvements needed.
60–69%	Facility needs substantial or major rehabilitation.
46–59%	Complete renovation or replacement; a detailed study may be needed.
00–45%	Abandon and/or replace the facility.

COMMENTS/DEFICIENCIES:

- Located on a 20-acre site, with a marginal aspect ratio; however, the location of the building improvements makes good use of available space for reasonably convenient play field and playground access.
- Parking is adequate; reduced enrollment since the 1998 study has relieved most vehicular circulation problems, generally allowing passenger cars to wait in queuing lines on school driveways and property.
- District's newest elementary school finished in 1996; exterior split-face masonry is showing efflorescence on many surfaces, and surface check-lines in mortar, suggesting building settling.
- The design separates primary and intermediate grades with shared facilities; most spaces have limited flexibility, including the library and administrative areas, and the intermediate wing.
- Some finishes have not worn well. Carpet is distressed throughout building; mastic has released, allowing carpet to stretch and bunch, creating an unsafe condition that can easily trip occupants.
- Site erosion and washouts near building foundation need to be controlled and stopped.

- Library is small for this size school; it will not meet new minimum standard library requirements and it will be very difficult to expand in the present location.
- Rooms currently used for computer labs (and designated as computer labs on plans) are in rooms smaller than needed (a minimum of 900 square feet needed).
- Music rooms inappropriately located adjacent to administration, especially if used by instrumental program; are small if more than one class (22–28 students) scheduled concurrently.
- Not enough support spaces, especially for itinerant programs, including speech, diagnosticians, ESL, technology maintenance, conference rooms, etc.
- Special education needs increased space in each wing for the special education self-contained classes, for kitchen and livings areas as well as suitable OT/PT area.
- Wall covering, especially on corridors is beginning to show wear; expect to replace early in normal life cycle.
- Classroom design and layout is inefficient, especially on the intermediate side and the shared spaces in the central component; classroom rooms do not enough space for differentiated instruction and the design provides quite limited long-term flexibility in most of the building.

Table 5-E
School Plant Profile
Brawner Intermediate School



KEY

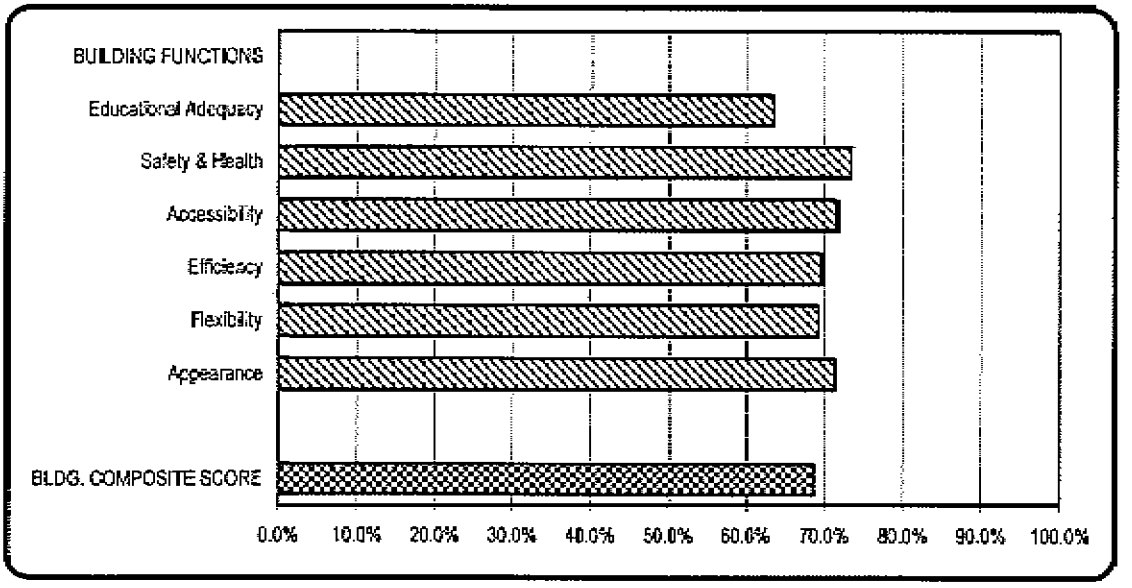
90–100%	A school facility of exceptional quality.
70–89%	Serves program well; some minor or component improvements needed.
60–69%	Facility needs substantial or major rehabilitation.
46–59%	Complete renovation or replacement; a detailed study may be needed.
00–45%	Abandon and/or replace the facility.

COMMENTS/DEFICIENCIES:

- School built on approximately 21.65 acres, with significant drainage channel meandering through the site, substantially reducing the useable acreage; site access appears to be suitable for a school of 400–550 students.
- The school was constructed in 1990–91 and originally served as a middle school; all general classrooms are substandard (about 661 square feet each) based on state standards established in 1994 for any general instructional use, including the current intermediate school use; it has both underutilized space and space needs.
- School currently houses about 350 intermediate-level students, near its current intermediate school capacity, but below its potential capacity if space were reconfigured for that use.
- Library is small for program, and below state minimum size for any school administrative unit; the science labs do not meet lab requirements for any level of use for science; they and the life skills lab are the only rooms that meet space requirements for general classrooms (grades EE–1 or grade 2 and up), but are not appropriate for those uses as now configured.
- Special education needs a significantly larger space for the special education self-contained class, to include expanded instructional space, OT/PT area, and fully accessible restroom containing cleanup shower and changing table.

- The current configuration has very little support space, including staff work and break areas, clinic, conference rooms, space for some itinerant programs, and storage. More such spaces are needed for elementary-level programs.
- The facility is at an age that significant refurbishment will be needed in the coming 10-year cycle; any refurbishing should be consistent with the long-term use of this facility.
- The specialized spaces adjacent to the gym (band, choir, drama, activities gym, dressing, weight room, etc.) should be reconfigured if the facility is to serve elementary-level students over the long term.
- The facility is reasonably flexible; classroom bay depths in the general classroom area are about 28 feet, allowing reconfiguration to larger spaces that will accommodate primary grades and/or space for differentiated instruction at any level.
- The useable acreage on the site is small for any use other than elementary-level use.

Table 5-F
School Plant Profile
Crossland Intermediate School



KEY

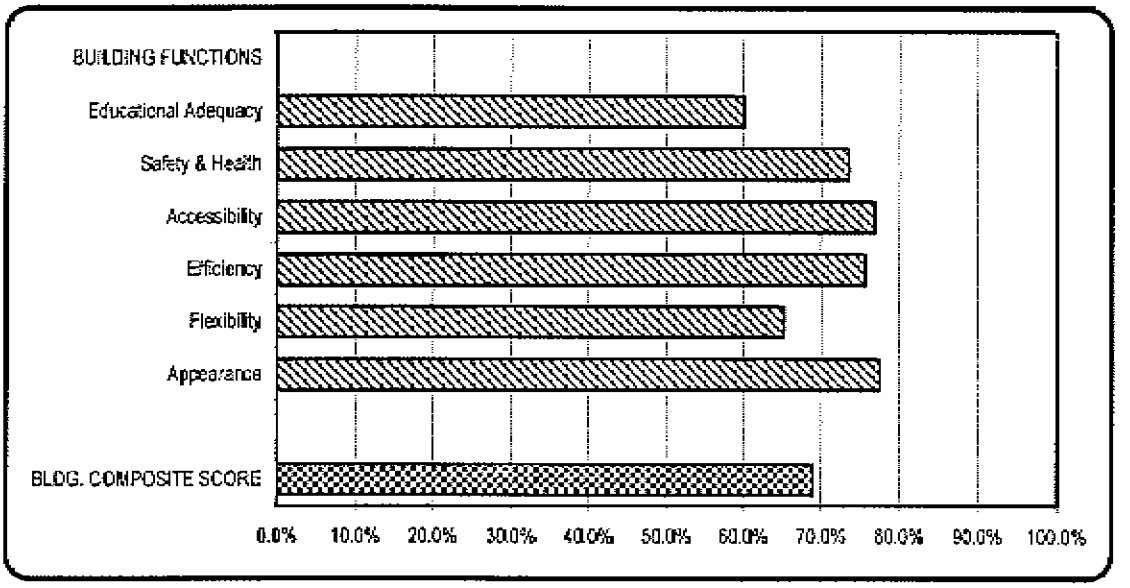
90–100%	A school facility of exceptional quality.
70–89%	Serves program well; some minor or component improvements needed.
60–69%	Facility needs substantial or major rehabilitation.
46–59%	Complete renovation or replacement; a detailed study may be needed.
00–45%	Abandon and/or replace the facility.

COMMENTS/DEFICIENCIES:

- Built on an irregular shaped site, either about 10.9 acres (district records) or about 15.5 acres (Appraisal District records). It is adjacent to other district land, across active streets. As configured, the site is too small for any use but elementary-level programs.
- The school is about 20 years old (dedicated in 1982–83); it has both underutilized space and space needs. The general classrooms are substandard, averaging about 605 square feet; below state minimum standards for any regular program use and much too small to support the differentiated instruction model planned by the district.
- Some specialized classrooms are small by current standards, including science, computer labs; the library is small. On the other hand, the facility has underutilized space that served its use as a small middle school, including art, band, chorus, and shop spaces (one converted to staff work/break area and school storage).
- Administrative area and support space is inadequate, as well as conference rooms, work/storage space, inadequate space for itinerant programs and the nurse's office. Some support programs are temporarily in full classrooms; an inefficient use of space.
- The facility is in significant need of refurbishing; it should be planned as part of a reconfiguration of the space for its long-term use, which might well include additions.

- Finishes, fixtures and systems need renovating and updating including: restrooms, electrical, lighting and ceilings, floor finishes, casework, boards, corridors, etc. HVAC designed so classrooms exhaust into the corridors, requiring an opening into the hall and allowing all hall-generated noises to impact instruction.
- School has too few student restrooms (one set of gang toilets) reasonably accessible from general classroom area; located off a relatively narrow cross-hall.
- Corridors are narrow, especially for lockers on both sides; if lockers are used, placement will cause passing bottlenecks.
- The structural design allows reasonable flexibility; the bay depths (distance from hallway to opposite wall) are generally about 28 feet, allowing the potential for some reconfiguration of space to general classrooms that will accommodate primary grades and/or space for differentiated instruction at any level.

Table 5-G
School Plant Profile
Oak Woods Intermediate School



KEY

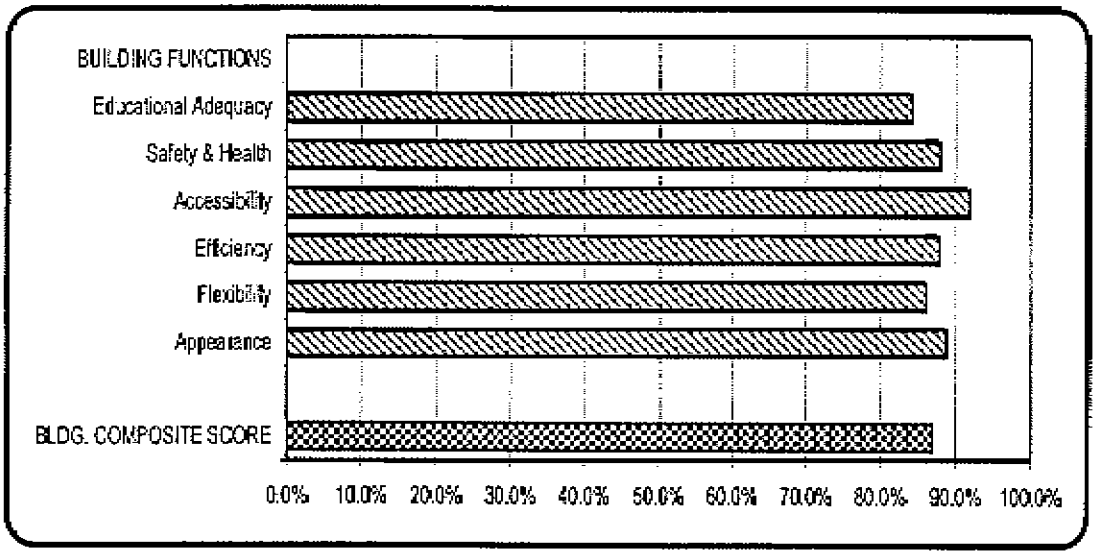
90–100%	A school facility of exceptional quality.
70–89%	Serves program well; some minor or component improvements needed.
60–69%	Facility needs substantial or major rehabilitation.
46–59%	Complete renovation or replacement; a detailed study may be needed.
00–45%	Abandon and/or replace the facility.

COMMENTS/DEFICIENCIES:

- This 13-year-old school is significantly handicapped by a small and irregularly shaped site (7.5 acres from district records, 8.4 acres including site access roads from Appraisal District records, or 4.2 acres from district deed records); access, parking, and vehicular circulation is problematic, with inadequate play fields.
- The building has a variety of problems and concerns: (1) the gym is not structurally isolated from adjacent classrooms, allowing noise to drum in those rooms; and (2) there is evidence of settling that may include some structural movement—area of concern runs diagonally from the kitchen, through the cafeteria and continuing on to the northern side of the main classroom wing.
- The facility has small building core elements, narrow corridors (especially for lockers), a small gym with access from outside only, very small library, etc. The number of students housed on this site has been reduced since the 1998 study (about 120 fewer students), but it is still overcrowded.
- Special education spaces are small; both life skills and transitional programs need more space, including direct access to a fully accessible restroom containing cleanup shower and changing table, and OT/PT area for life skills.

- Staff support space is limited; some itinerant and special programs using closets, storage, and similar spaces.
- Specialized instructional spaces are small or inadequate for the groups scheduled, including computer labs, science rooms, band program sectional spaces, and art room.
- School has small administrative offices and support space, including nurse's office, conference rooms, office work/storage. School also has limited teacher work and break areas, and little general storage.
- Classrooms are marginally small relative to state standards (689 square feet versus 700 square feet), but they are much smaller than needed to support the district's initiative toward differentiated instruction.
- If this facility stays in service for regular program functions, its age and historic heavy use suggest that it should get significant refurbishing in the coming capital improvements cycle; electrical service and lighting should be given attention as part of a refurbishing program.
- The facility design has some flexibility; the bay depths are about 28 feet, which would allow classrooms to be reconfigured to more suitable spaces.
- Generally, this school has limited long-term potential as an efficient administrative unit, unless the site can be significantly expanded and vehicular access/circulation improved. Assuming the concerns related to structure and air quality can be resolved or eliminated as concerns, the building could accept modifications to make it more supportive and accept more students, but without more land, it will choke on itself.

Table 5-H
School Plant Profile
Acton Middle School



KEY

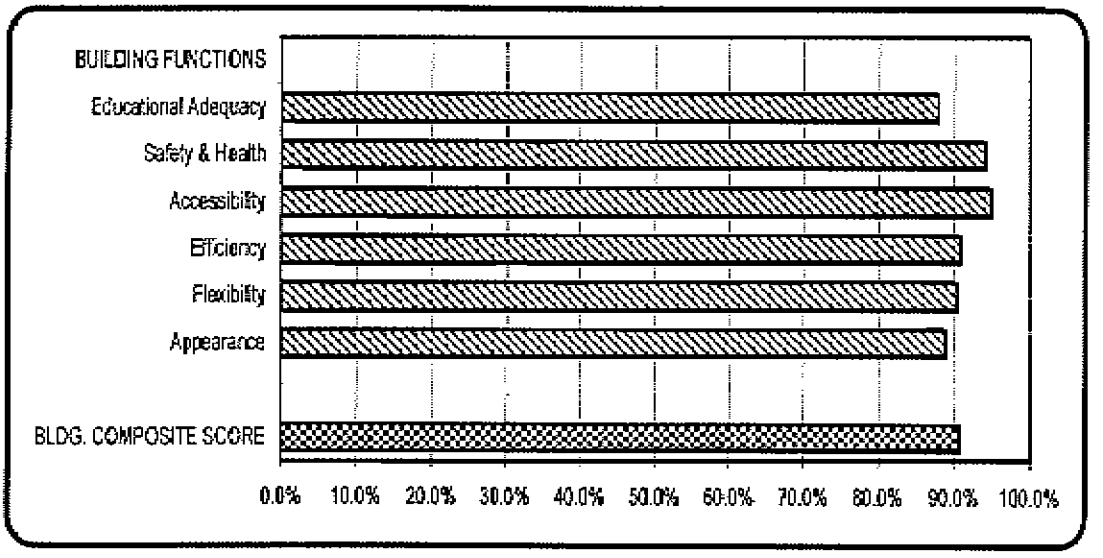
90–100%	A school facility of exceptional quality.
70–89%	Serves program well; some minor or component improvements needed.
60–69%	Facility needs substantial or major rehabilitation.
46–59%	Complete renovation or replacement; a detailed study may be needed.
00–45%	Abandon and/or replace the facility.

COMMENTS/DEFICIENCIES:

- This new middle school is built on a portion of a large contiguous parcel totaling about 215 acres (about 207 acres from Appraisal District records and about 225 acres from property deeds). The useable site available is not clearly identified, but is impacted by the configuration of the site and regional drainage. It appears that the effective useable site is between 25 and 35 acres, marginally adequate for a middle school campus for 1,000 or more students.
- The facility appears to have some settling; movement at many door frames and spider cracks in terrazzo floors in corridors, especially near expansion joints. Some evidence of roof leaks in band room area.
- Site has limitations related to drainage; developed area retains runoff during heavy rains on driveway between tennis courts and building; reported to be impassible for students and vehicles at times.
- The academic instructional spaces meet or exceed state standards; the functional design is very supportive of a middle school program.
- General classrooms average about 715 square feet and are smaller than needed to support the districts initiative toward differentiated instruction.

- Some specialized spaces are marginally small for the program needs including, the art labs and the family and consumer science lab; program would benefit from a third art lab, and a technology lab space capable of housing a modular technology program.
- Program needs a second self-contained special education space for transition program; make suitable for life skills for long-term flexibility.
- The security system and fire detection and alarm system need refinement in order to provide intended control and safety.
- The facility appears to have been designed prior to the decision to move ninth grade to this campus; many of the specialized spaces are marginal or do not meet the needs of the ninth grade high school program.
- The program for athletics/PE is limited by relatively small spaces for weight room and mat room. Programs were using an adjacent hall as an exercise space.

Table 5-I
School Plant Profile
Granbury Middle School



KEY

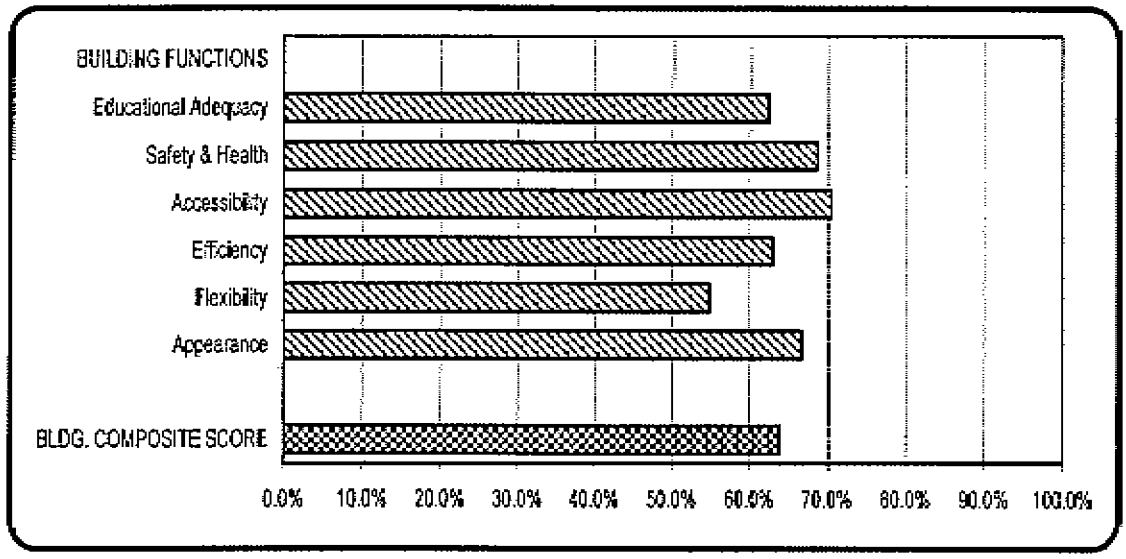
90–100%	A school facility of exceptional quality.
70–89%	Serves program well; some minor or component improvements needed.
60–69%	Facility needs substantial or major rehabilitation.
46–59%	Complete renovation or replacement; a detailed study may be needed.
00–45%	Abandon and/or replace the facility.

COMMENTS/DEFICIENCIES:

- This new middle school is the same basic plan as the new Acton Middle School and has many of the same characteristics.
- This new middle school is built on a site of about 100 acres, contiguous to the high school site of approximately 69 acres (source: Granbury ISD boundary survey and Appraisal District data).
- The facility appears to have some minor settling; limited movement at door frames and spider cracks in terrazzo floors in corridors, especially near expansion joints. Some evidence of roof leaks in band room area.
- Site has limitations related to drainage; developed area retains runoff during heavy rains on driveway between tennis courts and building; reported to flood, but not to the extent reported at Acton Middle School.
- The academic instructional spaces meet or exceed state standards; the functional design is very supportive of a middle school program.
- General classrooms average about 715 square feet and are smaller than needed to support the district's initiative toward differentiated instruction.

- Some specialized spaces are marginally small for the program needs, including the art labs and the family and consumer science lab; program would benefit from a third art lab and a technology lab space capable of housing a modular technology program.
- Program needs second and third self-contained special education spaces for transition program and deaf education; make suitable for life skills for long-term flexibility.
- The security system and fire detection and alarm system need refinement in order to provide intended control and safety.
- The facility appears to have been designed prior to the decision to move ninth grade to this campus; many of the specialized spaces are marginal or do not meet the needs of the ninth grade high school program.
- The program for athletics/PE is limited by relatively small spaces for weight room and mat room.
- The facility was designed to meet space needs of Granbury ISD's middle school instructional program and the state minimum standards for a middle school program. Any long-term secondary use of the facility, such as ninth grade center, should contemplate significant improvements relative to those needs; the most notable needs would relate to career vocational programs, the spaces that are marginal to small for a middle school program of about 1,000 pupils, and science labs, which average 1,058 square feet, but should be 1,400 square feet plus additional storage to meet new high school state requirements.

Table 5-J
School Plant Profile
Granbury High School



KEY	
90–100%	A school facility of exceptional quality.
70–89%	Serves program well; some minor or component improvements needed.
60–69%	Facility needs substantial or major rehabilitation.
46–59%	Complete renovation or replacement; a detailed study may be needed.
00–45%	Abandon and/or replace the facility.

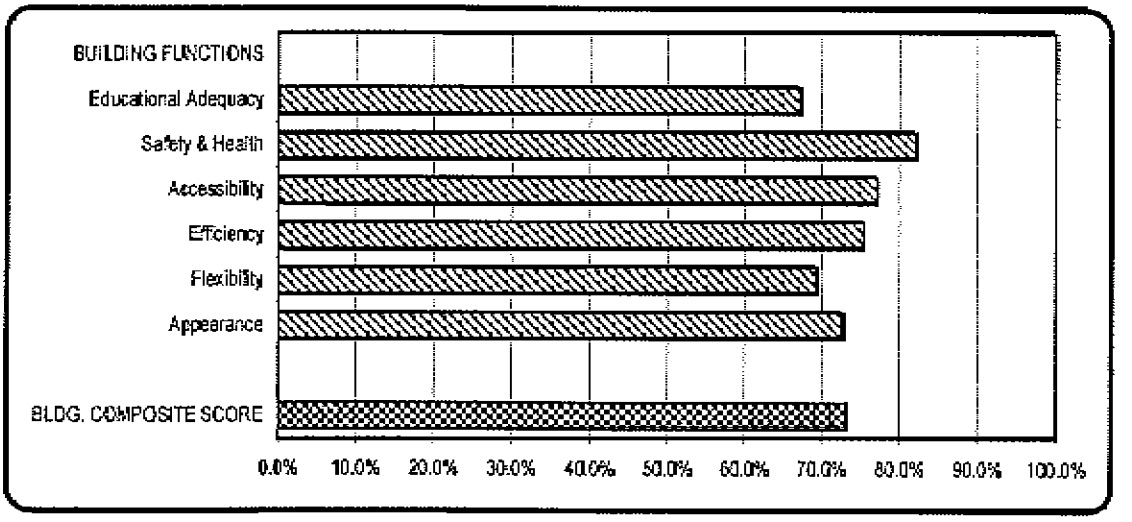
COMMENTS/DEFICIENCIES:

- This facility is built on 69–70 acres of land, with a somewhat irregular shape and elevation changes, and is traversed by a significant drainage channel, effectively reducing the useable acreage substantially.
- The site contains the appropriate high school competition venues; its original buildings were located on the site when it probably accommodated a high school of about 500–600 pupils; that now controls its expandability, even if sufficient contiguous land was available.
- The facility had a construction program of major additions and some rehabilitation in 1997, adding about 115,000 square feet of new instructional and support space. The program built out spaces between freestanding buildings, connecting existing elements with interior corridors through the new additions.
- The design of the additions does not seem to have addressed the future need to renovate the older elements of the campus, to bring them up to current standards and contemporary program requirements. These older elements generally do not meet general classroom or special instructional classroom space requirements.
- The program did not renovate most existing spaces; given the age of the original construction (1975) and given a recent history of heavy use from overcrowding, this is becoming critical.

Rooms on Hall A and the back of the 8 building are in particular need of finishes, fixture, and systems rehabilitation. The vocational area also needs rehabilitation; however, the study team recommends that future program directions be clearly established prior to planning and executing such work.

- The scope of long-term rehabilitation includes mechanical systems, restrooms and plumbing, electrical services, and older heating and cooling units; that will need to be linked to renovations that bring the spaces up to state standards and that will make the facility supportive of the district's initiatives toward differentiated instruction.
- The scope of the need to rehabilitate existing spaces is emphasized by the fact that 89 percent of the current academic classrooms are smaller than the state space standards; all science labs will be smaller than new standards, and most career and vocational spaces were built for a much smaller student body, and without anticipating technology's impact on these courses.
- The building has bottlenecks passing between periods, especially in the Grand Hall and the two-story area stairways between the 700 and 800 halls. The bottlenecks are exacerbated by the concentration of commons areas, resulting in the movement of most students along a limited number of access routes.
- Overcrowding has been reduced compared to 1998, but still exists; five teachers (other than coaches) are impacted by floating teachers; they either float between rooms or are displaced during their planning period.
- The library is small for the size student body; based on the newly revised state standards, it is barely 75 percent of the requirement for current reduced enrollment. If all grades 9–12 students were to have access to it, the current library has only about 60 percent of the minimum space requirement, and is isolated by its location from any significant expansion.
- Some support spaces and administrative space is inadequate; need conference spaces, larger clinic, additional work/production space, additional storage, and similar spaces.
- Special education needs increased space for the life skills class, with fully accessible restroom containing cleanup shower and changing table and OT/PT area.
- Existing vocational shops are marginal; program has limited offerings that support contemporary needs; some shop space is underutilized.
- The choral room is too small to accommodate the program, and there is not adequate space in the music wing for ensemble work.
- The journalism lab is small, with inadequate program support spaces.
- Old field house is inadequate and should be replaced or upgraded for other uses.

Table 5-K
School Plant Profile
S.T.A.R.S. Academy



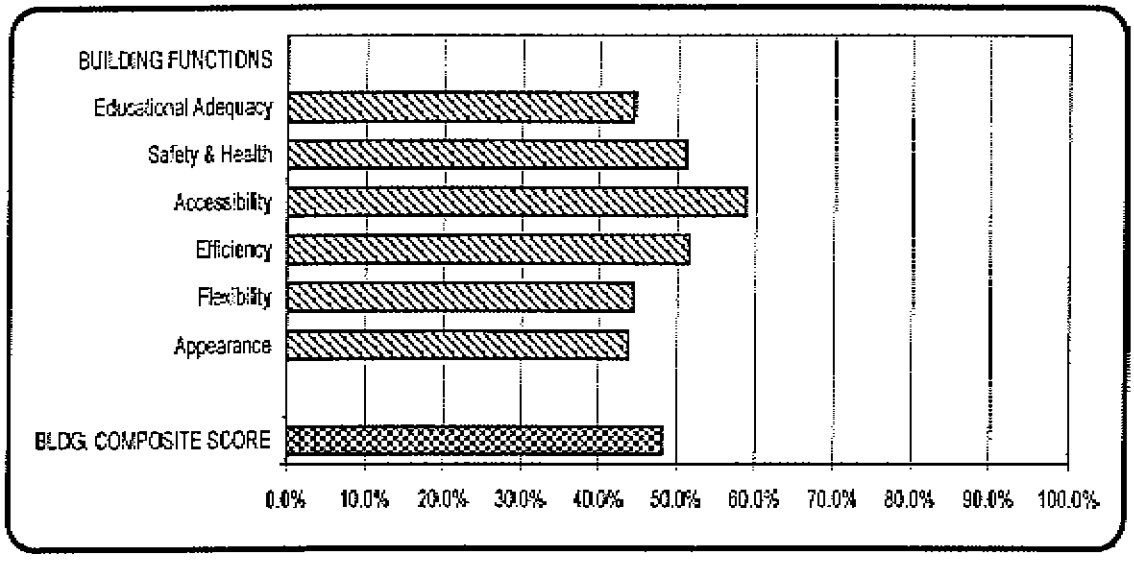
KEY

90–100%	A school facility of exceptional quality
70–89%	Serves program well; some minor or component improvements needed
60–69%	Facility needs substantial or major rehabilitation
46–59%	Complete renovation or replacement; a detailed study may be needed
00–45%	Abandon and/or replace the facility

COMMENTS/DEFICIENCIES:

- Located on a portion of the site associated with Acton Elementary School, it is across a street from the developed elementary site.
- Vehicular circulation and parking appear adequate, given the size limitations imposed by district practices.
- The instructional spaces are marginally small; some space sizes were modified just before construction to meet some needs not addressed in original planning; facility is in need of a suitable area for library/open computer lab functions. The classrooms are below state minimum standards for general academic instruction, but are adequate for the reduced student load characteristic of this program (12–14 maximum student load).
- Some support spaces are larger than necessary, while some instructional spaces are inadequate; science space is marginal, at best, if lab experiments are to be part of the instructional program.
- The building's siting and design do not lend themselves to easy expansion, apparently consistent with the intent of the district.
- The program would probably benefit from an elective such as art, with an appropriate space to house it. The program also would benefit from more developed grounds in support of controlled physical activity.

Table 5-L
School Plant Profile
Behavior Transition Center



KEY	
90–100%	A school facility of exceptional quality
70–89%	Serves program well; some minor or component improvements needed
60–69%	Facility needs substantial or major rehabilitation
46–59%	Complete renovation or replacement; a detailed study may be needed
00–45%	Abandon and/or replace the facility

Comments/Deficiencies:

- This facility is housed in a portion of the old Granbury Intermediate School. The space available and directly supervisable is inadequate for the program.
- The program appears to be expanding, given the philosophy of the current administration; the existing space will be inadequate to accommodate more students.
- Other possible locations on this campus would appear to be the 1976 wing, sometimes referred to as the Annex, or the original two-story element. As other uses have been allocated to the Annex, it may not be a cost effective consideration.
- Long term, this facility should locate in a facility that has been modified to support the instructional program and the environment required for the Discipline Alternative Education program. It may be appropriately linked with a second location for a credit recovery program, if the programs are sufficiently compatible within Granbury ISD; other districts have successfully linked these programs, and that concept may have merit for Granbury ISD.

CAPACITIES OF EXISTING FACILITIES

Background

Capacity analysis of the school plant is based on nationally accepted standards and procedures modified to be consistent with state standards, space requirements adopted by the State Board of Education, and local policies that are reflected in the current and/or anticipated curriculum offerings.

The space requirements approved by the State Board of Education are divided into two categories: Classrooms and Specialized Areas (see *Preface*).

The capacity of a school reflects the ability of the building(s) to accommodate the program it houses. A variety of issues influence the capacity of a facility, including small core facilities, resource programs, advanced placement programs, too few or inadequate laboratories, athletic periods, pupil scheduling, and graduation requirements. Among the most common issues reducing a school's capacity are resource programs and the adequacy and capacity of special areas. Refer to the *Preface* for a more detailed discussion of these influences and the methodology for calculating school capacities.

The capacity of each building is calculated based on both the number of pupil stations and the number of classroom equivalent teaching stations required by the current program. The data are gathered and recorded on a worksheet, samples of which are included in the Appendix. The pupil station capacity measure is the basic evaluation tool for secondary and departmentalized programs (and for all schools with classrooms much smaller than the state minimum standards shown in the *Preface*); the teacher station capacity measure is used for elementary schools (also the alternate measure for secondary schools).

For smaller schools with departmentalized programs and for schools with small classrooms and/or labs, the results of both calculations are examined to determine which is more appropriate to the situation. Experience suggests that for smaller schools and/or programs with an unusually high number of offerings, capacity by teaching stations is the more accurate measure. Schools with small teaching stations are often more accurately measured by the pupil stations measure. Normally, the measurement procedure reflecting the smaller capacity is reported as the school's capacity.

The impact of substandard classrooms (very poor performing and/or portable or modular temporary classrooms) can add significantly to the space shortfall, as they are not included in the spaces that provide permanent capacity, especially at elementary level schools. Elementary and intermediate schools (self-contained environments), where about 25 percent of the classrooms are typically used for noncapacity pull-out programs. Unless information is available that allows an adjustment in a school's program for fewer students, the programs housed in portables are *moved* into the permanent building, further reducing the available classrooms for regular program use.

At some facilities, the available classrooms and total pupil stations could include portable buildings. They are excluded when summarizing permanent facility assets. The Net Permanent Teaching Stations on Table 7 reports that number.

Factors Effecting Use of School Capacity Information

It is appropriate to restate this study's assumption regarding the state minimum size standards. They are used as a measure for existing spaces, assuming that these rooms will be used for the general instructional program for many years to come. In that context, the state standards are designed as minimum standards for contemporary educational programs. They take into consideration technology, inclusion, and similar program directions that clearly impact instructional space requirements. But these sizes are not optimum or even adequate for many districts; they should be viewed as no more than minimal spaces. Many local programs will have instructional program requirements for the 22 to 25 pupils in their classrooms that will need more space than the minimum standards provide. The state standards do recommend that districts plan the general classrooms for the larger typical groups, expanding the minimum standard by the per-pupil square footage in order to comfortably accommodate the extra students, as well as space for equipment.

At the same time that this is said, it also is unreasonable to assume that it would be a prudent public investment to remodel entire schools to make them conform to these minimum standards. The capacity calculations do, however, offer the benefit of providing some space, some elbowroom, for creative program modifications that adapt to the constraints of the facility while maintaining the program's instructional integrity.

Granbury ISD School Capacities

The capacity of the schools in Granbury ISD was determined by applying standard capacity measures, which are described on the previous pages and in more detail in the *Preface*. It should be noted that room utilization data in this study is based on information furnished by the central administration and the school principals as of the fall and winter of 2002–03 school year.

Making necessary adjustments for the size of existing classrooms and space deficiencies where necessary and reflecting the current district staffing practices, the district has an overall net surplus of up to 144 pupil stations. In terms of classroom teaching stations, the district has a net overall surplus of 11 teaching stations. The projected enrollment growth over the next 10 years would create a shortfall of about -1,083 pupil stations and about -87 teaching stations. Because Granbury ISD has overcrowding at selected campuses, as well as a backlog of significant facilities needs associated with maturing buildings needing refurbishing and because the district is forecast to continue growing, the program to address the continuing facility needs should be initiated relatively soon. The school capacity calculations are reported on the following tables and discussed in more detail under Capacity Comments.

Table 6
Capacity Analysis by Pupil Stations
Granbury ISD

School	Grades Housed	2002–03 Total Membership	Portable & Substandard Classrooms On Site	Pupil Stations			Permanent Operational Capacity	Available Pupil Stations
				Lost to Bldg Deficiencies*	Absorbed by Program**	In Sub-standard or Portables		
Acton Elementary	EE–3	622	0	(105)	(122)	0	620	(2)
Baccus Elementary	EE–3	482	0	(140)	(118)	0	521	39
Roberson Elementary	EE–3	488	0	(169)	(138)	0	502	14
Mambrino School	EE–6	761	0	(141)	(293)	0	1,029	268
Brawner Intermediate	4–6	344	2	(90)	(180)	(36)	340	(4)
Crossland Intermediate	4–6	321	0	(60)	(240)	0	356	35
Oak Woods Intermediate	4–6	501	2	(245)	(230)	0	356	(145)
Subtotal		3,519	4	(950)	(1,321)	(36)	3,724	205
Acton Middle School	7–9	777	0	(104)	(99)	0	1,176	399
Granbury Middle School	7–9	816	0	(93)	(93)	0	987	171
Subtotal		1,593	0	(197)	(192)	0	2,163	570
Granbury High School	9–12	1,332	15	(283)	(35)	0	1,293	(39)
Subtotal		1,332	15	(283)	(35)	0	1,293	(39)
S.T.A.R.S. Academy	9–12	53	0	0	0	0	54	1
Behavior Transition Ctr.	5–12	46	0	0	0	0	34	(12)
TOTALS		6,543	19	(1,430)	(1,548)	(36)	7,268	725

* Deficiencies: Pupil stations designated to provide for space deficiencies in libraries, cafeteria, labs, resource programs, etc. Where existing buildings cannot reasonably accommodate the space deficiency, the need may not be deducted; such deficiencies need to be met through an addition.

** Capacity absorbed by program refers to classrooms/teaching stations used for programs that add no capacity, such as music and title programs in schools with self-contained rooms, and content mastery in schools with departmentalized programs (see discussion of this issue on page v of the *Preface*.)

Table 7
Capacity Analysis by Teaching Stations
Granbury ISD

School	Grades Housed	Total Teaching Stations On site	Teaching Stations			Net Permanent Teaching Stations	Current Program Needs [teaching stations]	Available Teaching Stations	Teaching Stations Capacity to Pupil Stations	Capacity Shortfall
			Lost to Deficiencies*	Absorbed by Program**	In Sub-standard or Portables					
Acton Elementary	EE–3	48	6	7	0	35	32	3	676	54
Baccus Elementary	EE–3	43	7	7	0	29	28	1	500	18
Roberson Elementary	EE–3	43	9	7	0	28	27	1	497	9
Mambrino School	EE–6	75	8	15	0	53	41	12	975	214
Brawner Intermediate	4–6	32	5	9	2	16	18	(2)	354	10
Crossland Intermediate	4–6	32	3	11	0	18	16	2	361	40
Oak Woods Intermediate	4–6	32	3	11	0	18	17	1	335	(166)
Subtotal		305	40	67	2	196	179	17	3,698	179
Acton Middle School	7–9	63	5	5	0	53	41	12	965	188
Granbury Middle School	7–9	63	5	5	0	53	57	(4)	826	10
Subtotal		126	10	10	0	106	98	8	1,791	198
Granbury High School	9–12	95	16	2	0	78	75	3	1,362	30
Subtotal		95	16	2	0	78	75	3	1,362	30
S.T.A.R.S.	9–12	5	0	1	0	4	4	0	54	1
Behavior Transition Clr.	5–12	4	1	0	0	3	5	(2)	28	(18)
TOTALS		535	67	80	2	387	361	26	6,933	390

* Deficiencies: Teaching stations designated to provide for space deficiencies in libraries, cafeteria, labs, resource programs, etc. Where existing buildings cannot reasonably accommodate the space deficiency, the need may not be deducted; such deficiencies need to be met through an addition.

** Capacity absorbed by program refers to classrooms/teaching stations used for programs that add no capacity, such as music and title programs in schools with self-contained rooms, and content mastery in schools with departmentalized programs (see discussion of this issue on page v of the *Preface*.)

The district's total school capacities are slightly in excess 2002–03 levels of need (4 percent), because the district has addressed pressing needs through the construction of two new middle schools, converting the old middle schools to intermediate schools, and major additions at three elementary schools. The district also modified its attendance boundaries to redistribute students, further relieving overcrowding.

Table 8, below, reports the current student enrollments graphically relative to the schools capacity (at the 100% line), comparing them to each other and the percentage that each school currently has

extra space or is overcrowded. Table 9 reports the same information in terms of absolute numbers, or surplus space and overcrowding in the actual pupil counts.

Table 8
School Capacity Percentages
Granbury ISD

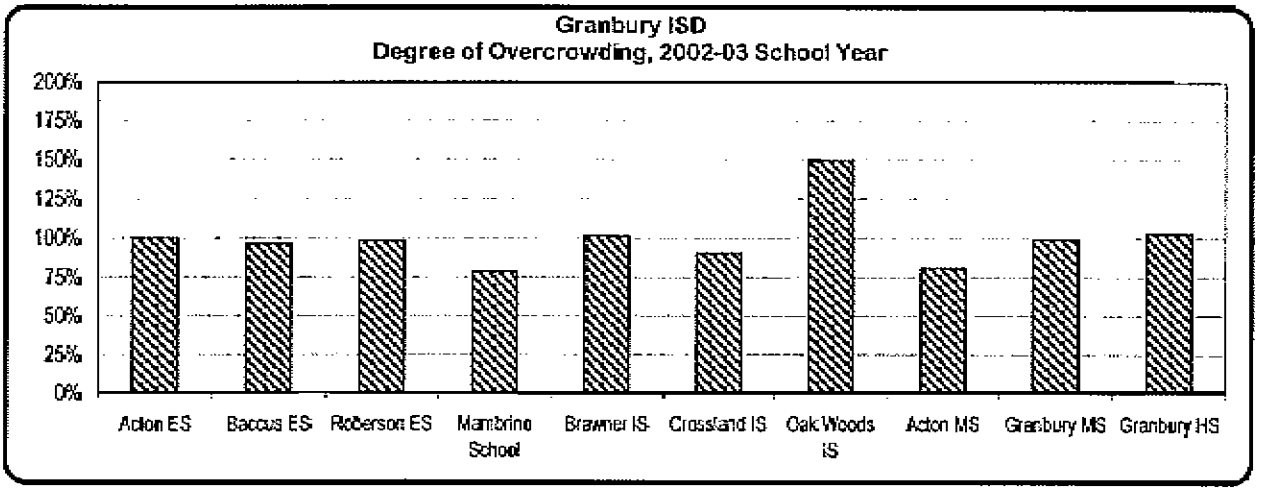
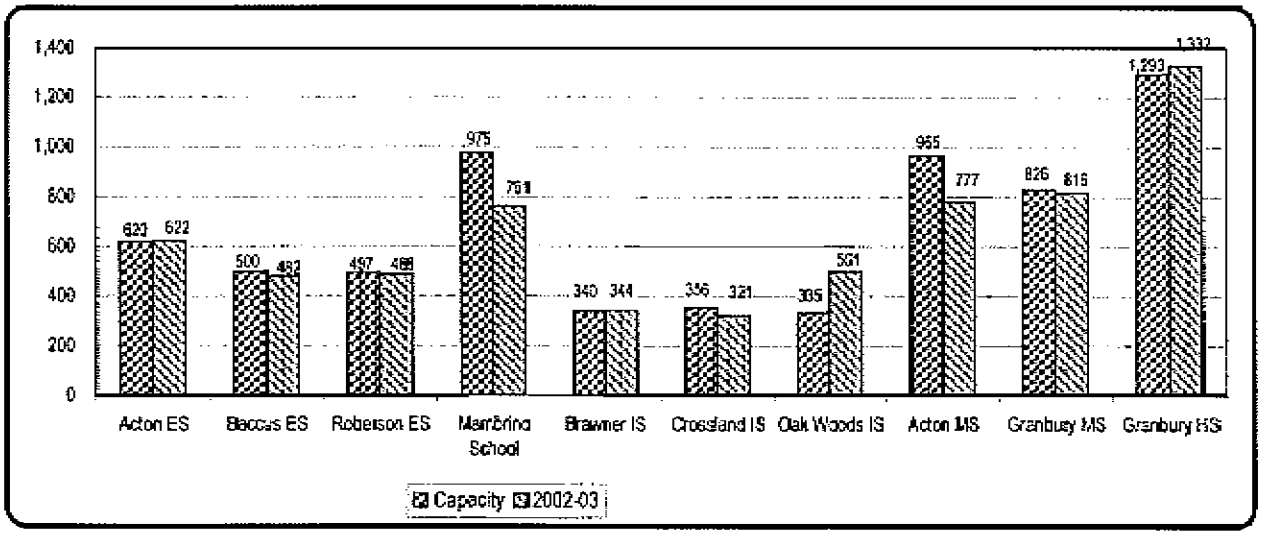


Table 9
School Capacities Reported in Pupil Counts
Granbury ISD



It should be noted that only three schools deviate significantly, as either overcrowded or with surplus space. Oak Woods Intermediate School is the only campus that is still seriously overcrowded, while Mambrino School and Acton Middle School have quite a bit of available space; both are currently at about 80 percent of capacity. The remaining schools are operating very close to their program capacities (operational capacities). This is an attest to the efforts of the community and the district's leadership in addressing space needs through the recent bond election and subsequent construction program.

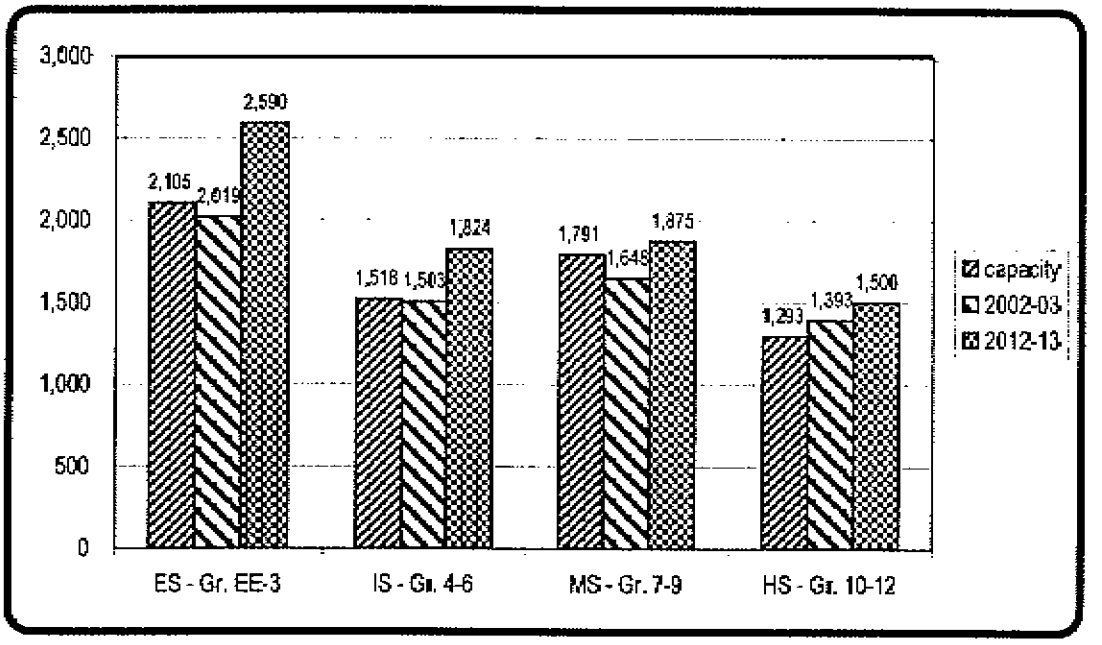
As the district has recently added schools and redistricted, effective school-by-school enrollment forecasts were beyond the scope of this study. However, as the district is currently evaluating its organization by school administrative units, possibly moving to a grades K–5, grades 6–8, and grades 9–12 configuration to better support the district's instructional program. Tables 10 and 11 report and compare current enrollment with forecast enrollment, both by the current administrative organization and by the new administrative organization currently being considered.

It also helps point to areas that need to be addressed in subsequent building programs, the most notable being the need for intermediate-level space in the eastern part of the district/county. Equally critical are the more complicated issues relative to Granbury High School; if all high school grades (grades 9–12) were gathered together, Granbury ISD would need to house between 1,900 and 2,200 students on a single campus, making it the most seriously overcrowded school in the district.

Table 10 compares the current and forecast grade level enrollments to capacities, districtwide, by the current grade level organizations in absolute numbers.

Table 10
Future Capacities and Existing Organization
Granbury ISD

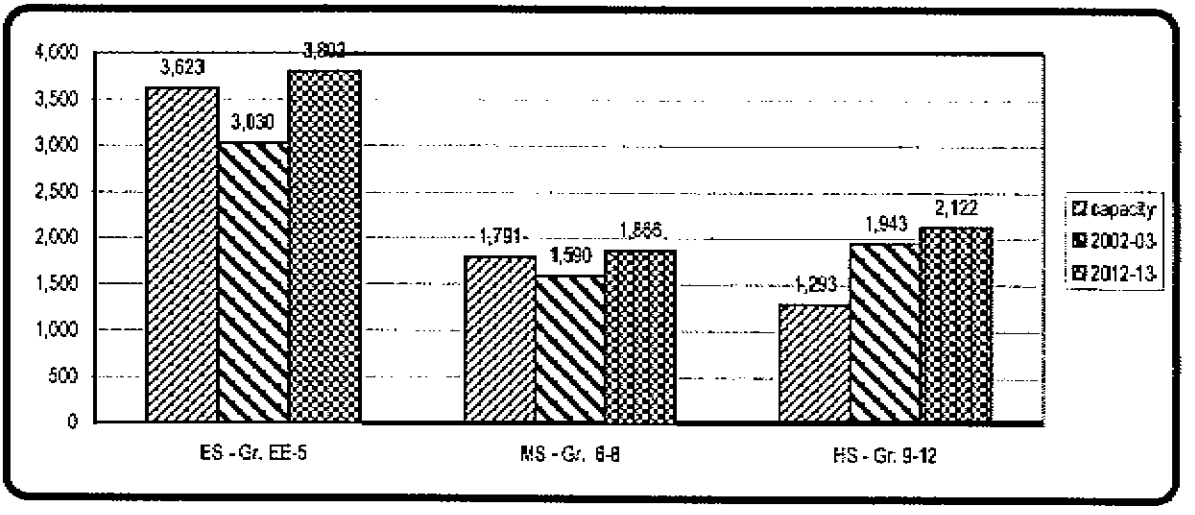
Schools Organized in Grades EE–3, 4–6, 7–9, 10–12



The exercise is repeated for the proposed reorganization in Table 11.

Table11
Future Capacities and Proposed Organization
Granbury ISD

Schools Organized in Grades EE–5, 6–8, 9–12



As a growing district, Granbury ISD also must face the likelihood that it will have to change attendance boundaries or transfer students on a regular basis, to ease periodical overcrowding, until permanent solutions can be achieved. It will be helpful for Granbury ISD to establish working policies regarding redistricting and/or intradistrict transfers now, before those issues reach critical levels districtwide. Also, as the district considers school organizational patterns, it will be well advised to establish planning policies regarding school sizes at each organizational unit, and to relate school size to feeder patterns between schools, to build a long-term pattern of stability for the district's schools.

Capacity Comments

The following comments help further explain why the individual school capacities reported in the two tables above may be lower than one might expect. They reflect the fact that today's schools have more programs to support instruction. The state also has membership limits, such as the 22:1 ratio up through grade 4. Capacities also are impacted by the minimum room size standards the state adopted in 1994. The state bases its minimum room sizes for academic classrooms on a maximum of 22 pupils for PK–grade 4 and a maximum of 25 pupils for grades 5–12; however, these minimum sizes are not sufficient to accommodate classroom technology and computers and differentiated instruction.

Often, in Granbury ISD, section size also exceeds the design capacity of 25 for the minimum size general (as academic) classroom, for grades 5–12. For example, Granbury High School has general academic sections with *26 or more students in nearly 30 percent* of those sections.

Since there were no state minimum size standards prior to 1994, often these define a larger standard than local districts previously used. This is partly true in Granbury ISD. In the buildings constructed before 1985, the general classroom was between 580 to 605 square feet; those constructed between 1986 and 1991 ranged between 650 to 685 square feet. Only those built since the standards were in effect meet the current state minimum standards at the respective levels. The majority of the specialized spaces follow the pattern in the older schools of providing both smaller and fewer spaces than needed to support the district's growth, in science labs, computer labs, business labs, some fine arts rooms (chorus, art, and drama), and some career/vocational spaces.

Regarding Granbury ISD's technology goals and making computers accessible to students, almost all the district's academic classrooms are too small for a full load of students and the additional room needed for the four to five classroom-based student computers. Generally, programs using classroom computers will be used by individuals, as well as by small groups, for cooperative or collaborative learning. Each computer should have approximately 50 square feet of available space for such learning activities or 200–250 square feet above current state minimum standards in academic rooms for grades 2–12.

The revised state standards address this need indirectly, recommending that districts construct general classrooms large enough to handle the size groups typically found in the larger sections. If a district uses this guideline, it should consider secondary classrooms of no less than 840–850 square feet. If the expectation of differentiated instruction is the controlling issue, then the district should consider general classrooms averaging around 900–950 square feet. It is most advisable to

verify this need with field testing; create two to four larger test classrooms from existing space, set them up with the desired technology, make them available to instructors committed to using technology and differentiated instruction, and evaluate after some experience.

Following is a summary of issues impacting the capacity of the district's facilities.

Acton, Baccus, and Roberson Elementary Schools

The designs are similar and, although they have had slightly different modifications, the capacities of these elementary schools as they are currently used, are impacted by additional spaces required to offset needs resulting from:

(1) Some marginal specialized spaces, including libraries, some computer labs, gyms/play rooms, appropriate spaces for itinerant and support programs;

(2) About 15 percent of the classroom teaching stations remain undersized; were not modified as part of the additions and face-lift program;

(3) Inefficient use of space for support programs, such as tutorials and speech therapy, where suitable smaller spaces are not available;

(4) Inadequate self-contained special education spaces for life skills, transitional, and PPCD.

(5) Marginal to small dining facilities limit these facilities to capacities ranging from 550 to 675; the gym/play areas are even more restrictive, with functional capacities of 38–40 students at one time. These are particularly controlling given the new state requirements for PE minutes per week.

The functional capacities of these three schools was significantly improved by the recent improvements; the schools have about 50 percent of their spaces large enough for grades EE–1 classrooms, and the majority of the remaining classrooms have been modified to create classrooms that meet state minimum standards for grade 2 and above. However, their functional capacities have not grown as much as one might have expected, only an increase of about 240 pupils per school on average. The 20 classroom additions did not produce an expected capacity increase of 350–380 for a number of identifiable reasons. However, the primary reason relates to the process of expanding most of the remaining rooms to state minimum standards, which resulted in a net loss of classroom count in the original buildings partially offsetting the increase in classrooms in the additions.

Mambrino School

The capacity of Mambrino School is impacted by the following findings:

(1) The functional capacity has increased slightly (from 941 to 975), primarily the result of having reduced the number of students attending this school;

(2) The site, about 20 acres, is adequate for its use. The aspect ratio is marginal, but the improvements are sited to make good use of the site relative to this modest shortcoming;

(3) Some specialized spaces are marginal to inadequate, based on current standards, including the library, special education self-contained classrooms, computer labs, and classroom music rooms (based on scheduled use);

(4) There are insufficient number of adequate sized classrooms to house the existing grades PK–1 classrooms; and

(5) The school has a functional utilization factor of about 92 percent, which is characteristic of a Texas elementary school with five to six sections per grade.

These factors have resulted in an estimated functional capacity for about 975 pupils, given the practices and characteristics of the existing Granbury ISD elementary program. If space were to be provided for new programs within the existing facility not now offered, the capacity will be further adjusted.

Brawner and Crossland Intermediate Schools

The capacities of these two converted middle schools are impacted by similar space shortcoming and needs for their current uses resulting from:

(1) Both sites are marginally small for their current use; the useable acreage is limited by drainage and site shape/configuration;

(2) Both schools have general academic classrooms are smaller than the current state minimum standard for classrooms (about 600 square feet at Crossland Intermediate School and 660 square feet at Brawner Intermediate School), and well below the space required by the district's instructional program initiative for differentiated instruction.

(3) Both schools have space planned for middle school programs that are not part of the district's intermediate school program and, as configured, not useful to the intermediate school program;

(4) Both schools have marginally small, specialized instructional spaces that are appropriate to an intermediate school program, including libraries and self-contained special education spaces. Conversely, certain spaces are larger than needed by the district's program for this age, including classroom music and art rooms;

(5) Marginally small spaces for support spaces, including itinerant program spaces, administrative offices, and staff support space; and

(6) Functional utilization factor of about 92 percent; characteristic of an elementary-level school with five to six sections per grade.

These factors have resulted in an estimated functional capacity ranging from 340 to 356 pupils, given the practices and characteristics of the existing Granbury ISD elementary-level program. If space were to be provided for new programs within the existing facility not now offered, the capacity will be further reduced. Conversely, if the specialized spaces not designed for an intermediate-level program can be renovated to a use appropriate for the program, the capacities could increase.

Oak Woods Intermediate School

The capacity of Oak Woods Intermediate School is impacted by additional spaces to offset needs for:

(1) The very small site, between 4.2 and 8.4 acres (from various deeds and local information), including access drives. The functionality of the site is further compromised by elevation changes and an irregular shape that is too small for any upper elementary use;

(2) All general academic classrooms are below the current state minimum standards for intermediate grades (about 660 square feet versus 700 square feet minimum state standard), and well below the requirements of the district's instructional delivery initiatives for differentiated instruction;

(3) Specialized instructional programs are marginal to substandard, including the library, self-contained special education spaces, science lab(s), computer labs, itinerant programs, and remedial instructional programs;

(4) Marginally small support spaces, including staff work/break, clinic, administrative offices, ISS space, and school storage;

(5) The gym, which is marginally small, is not acoustically isolated from adjacent classrooms, making six rooms marginally useful;

(6) Functional utilization factor of about 93 percent, which is characteristic of a Texas elementary school with six to seven sections per grade.

These factors have resulted in an estimated functional capacity for about 335 pupils, given the practices and characteristics of the existing Granbury ISD elementary-level program. If space is to be provided for new programs within the existing facility not currently in place, the capacity will likely be further reduced.

Acton and Granbury Middle Schools

Acton Middle School and Granbury Middle School are new and generally support the district's instructional program well; they are impacted marginally by spaces needed to offset needs resulting from:

(1) Marginally small general classrooms that do meet the state minimum standard (about 715 square feet versus minimum standard requirement of 700 square feet) but are small relative to the district's instructional initiatives related to differentiated instruction;

(2) Marginally small art lab and family/consumer sciences lab; no suitable space for career technology (modular technology lab), small mat room (used by expanded weight room), and small spaces for self-contained special education programs;

(3) Both facilities were planned to meet middle school needs; they generally meet middle school program needs well, but they do not have specialized spaces as large as required for the ninth grade programs that are currently housed in these facilities;

(4) Acton Middle School has site concerns; the site has adequate gross acreage, but as sited and developed it has access issues; marginally safe vehicular ingress and egress; and

(5) Both schools have drainage problems that effect the sites' usefulness, generally in the same area of the sites (at drives between tennis courts and school building); the problem is more pronounced at Acton Middle School.

These factors, together with the programs housed and the staffing patterns in place, have produced capacities between 825 and 965 pupils, given the practices and characteristics of the existing Granbury ISD secondary program.

Granbury High School

Granbury High School is a campus with significant space needs and is impacted by additional spaces to offset needs for:

(1) Undersized classrooms; nearly 80 percent of general classrooms are of substandard size, ranging from 534 square feet to 694 square feet (versus 700 square feet minimum state standard) and are much smaller than the instructional initiatives toward differentiated instruction;

(2) Generally, labs and specialized spaces constructed prior to the 1996 addition were small; they appear to have been designed for a smaller student body and lower student loads. All are marginally small to small for current needs; those small spaces represent about 54 percent of its labs, and general and specialized spaces. The space shortages are especially noticeable in career/vocational spaces and some fine arts spaces.

(3) The facility does not have space to accommodate all high school grades; ninth grades have been relocated to the middle school environment, where the facilities are not adequate, long-term, to support this age student;

(4) Special education spaces are generally too small and/or inadequate for student load, including the self-contained rooms, and the testing, counseling and itinerant spaces;

(5) The library is small based on current state standards, even for the reduced student load of about 1,350 students in grades 10–12; the dining space also is small and could not suitably accommodate all students in grades 9–12;

(6) Student-to-section ratios are about 17.58 students per section; lower than would be expected if all four high school grades were in a campus capable of housing 2,000–2,500 students; and

(7) Limited general support space that reduces potential capacity, including administrative office and counseling spaces, clinic, conferencing, and work and storage spaces.

These factors have resulted in an estimated functional capacity for about 1,293 pupils, given the practices and characteristics of the existing Granbury ISD secondary program. If space were to be provided for new programs within the existing facility not identified above, the capacity would be reduced further.

The siting of this school in relation to streets, the location of improvements like the stadium limit the district's ability to recover academic capacity at the high school. Recovering any capacity would include renovating to expand deficient spaces and adding new spaces to replace those used for expansion or those that cannot be cost effectively expanded in existing space.

COMMENTS AND CONSIDERATIONS

This study analyzes a district's facilities compared to state and other established standards, and it identifies the range of deficiencies compared to those standards. The nature of a deficiency analysis is to draw attention to items that do not meet the standards. Because the report identifies shortcomings, the reader should not misunderstand that all is wrong with the district's schools. It is the function of this analysis to report shortcomings in relation to adequately housing the district's current instructional program.

The major facility issues facing Granbury ISD (not in order of priority) are those related to:

A. The issue of the size (and number) of high school(s) and related feeder patterns that will best support the district's instructional program and the values of the community
B. Addressing existing deficiencies and shortcomings at the elementary level
    1. New construction and/or renovations to address program needs at the intermediate schools/buildings, as either grades PK–5 elementary schools or grades 4–5 or grades 4–6 intermediate schools
    2. Renovations and/or new construction to further refurbish the existing elementary schools to the long-term organization as primary schools or elementary schools
C. Planning schools for the anticipated enrollment growth
D. Identifying and/or acquiring sites for new schools and growth
E. Developing an educationally sound facilities master plan acceptable to the community to address these needs

Findings: Best Use(s) of Existing Facilities

In order to utilize all existing suitable facilities and grounds to their maximum as part of a comprehensive long-range plan, the survey team evaluated the facilities regarding best and alternate uses.

The district has schools that need additional modifications to properly serve current uses; the district also is considering an alternative organization, which would change the uses for many campuses. The single most critical long-term space need is at the high school level. Also, all current elementary and intermediate schools need renovations and/or additions; the scope of those needs depends on the ultimate long-term organization.

Current primary schools (Acton, Baccus, and Roberson Elementary Schools) have been planned to become grades EE–5 schools, but all will need some modification of selected spaces, including enlarged spaces for the instructional programs that are used in the rotation to provide the professional staff duty-free planning periods. The gyms are all too small for the size groups assigned (as primary schools) and too small to serve middle elementary grades. The partial facelift accompanying the recent expansions need more attention, including an orientation of functions with appropriate spatial relationships.

The intermediate schools represent two separate issues. Oak Woods Intermediate School is an inadequate facility for any long-term use for regular instructional programs. The site is very

restrictive and appears to not have any potential for suitable expansion. This facility should be phased out and replaced with facilities that are on suitable site(s) in the general growth area of the district. This facility should be evaluated for long-term use by either alternative education programs or for central administrative services, unless the facility has some value in the market for another public agency use or private uses.

The converted middle schools, Brawner Intermediate School and Crossland Intermediate School will need significant renovations, probably supplemented by additions, to serve either as grades EE–5 elementary schools or intermediate schools. None of the existing spaces meet current minimum state standards for any level of use, and much of the specialized space needs to be planned and renovated to support whatever instructional program is to be housed in them. Both schools are aging, but Crossland Intermediate School is in particular need of full refurbishing of systems and finishes, and should be planned in concert with the facility's long-term use as an elementary or intermediate school.

The complicating facilities relative to the grades EE–5 schools versus primary/intermediate schools are Roberson Elementary School and Brawner Intermediate School. They represent elementary-level instructional spaces that will need to function as mutually supportive due to their proximity. If the district moves to a grades EE–5 organization, because of their proximity these buildings will likely need to be linked to each other to house the elementary-level program. The alternatives to a linked use would be to surplus the property for other public uses/private uses or to convert one of the facilities to a special programs facility, either serving alternative education programs or district central administrative services uses.

Mambrino School is currently an anomaly for the district, as it was designed and currently functions as a grades EE–6 elementary school; that remains its best long-term instructional support use.

The new middle schools were planned for and should be used to serve middle schools for grades 6–8. The facilities should not be used, long-term, for ninth graders without substantial modifications to adequately house freshman-level programs. They will be less adequate junior high schools (grades 7–9) than middle schools, even with modifications and additions.

The high school is inadequate for all students in grades 9–12; even with an addition of more academic spaces, the school will have severe limitations on its core facilities that will make the investment in more academic space on this site a poor investment. The district needs to address the issue of one or more high schools and how large high schools should be allowed to become before the district duplicates the high school. The current site, of about 70 acres, is too small for any significant expansion, given the location of the improvements, the constraints of the site's topography, the competition venues, and the floodplain. Careful site master planning can determine the extent to which the school can be renovated and older facilities replaced and the number of students it can responsibly house. If the district elects to have a single high school for the near-term and mid-term, this campus should be evaluated as either a freshman/sophomore center or a junior/senior center, serving in conjunction with another facility for the corresponding grades. This facility could serve as a partial facility for a high school of 2,500–3,500 total enrollment.

If, on the other hand, the district would elect to have more, smaller full-service high schools, this campus should be evaluated to determine if it can be expanded and redeveloped to serve as a grades 9–12 high school of 1,500–1,750, which appears to be a reasonable maximum size range for this school campus.

The district is forecast to experience a temporary slowing of the substantial growth in its high school student body, because of larger groups leaving the district compared to the size that have been entering the district (effects of the baby boom echo). The growth trend over the coming 10-year period is forecast to grow about 150–200 pupils in grades 9–12. The slowing of secondary growth will give the district an opportunity to evaluate its goals and values regarding the one high school or two high school question and plan improvement to support the decision, whichever direction it might take.

The district also should address the issue of *academic classroom size* to support its initiatives toward differentiated instruction. To this point, new construction has used state minimum standards as the accepted targets for classroom size. Those standards are minimum standards and do not provide space for the instructional delivery expectations of the district. In addition, the minimum standards have been the focus, even when the average class load has exceeded the maximum enrollment of 25 pupils per section targeted by the state minimum standards. For example, at the high school about 30 percent of the sections in general classrooms have memberships of over 25 students. The Commissioner of Education's regulations suggest that districts build larger classrooms if the anticipated maximum is over 25 per section. If 30 students per section were used as the target, the state standards recommend a classroom of at least 840 square feet (30 students times 28 square feet per student).

An important measure to the district is to consider the combination of larger section enrollments coupled with differentiated instruction and the space to allow the three to five groups typical of differentiated instruction to function simultaneously within the confines of the general classrooms. The district should evaluate the space needed for this instructional model and consider adopting classroom space standards that will support the instructional delivery goals. One reasonable approach would be to combine the guideline of state minimum standards per student with the additional space needed for the three to five classroom computers for upper elementary and secondary programs. The district will benefit from establishing standards common for all its classrooms within administrative units; same size classrooms throughout the school will afford maximum flexibility over the long-term use of the facility. It is the experience of this survey team that schools will typically assign grades to various rooms within the building during the life of the building for reasons that are appropriate at that point in time of the building's use.

Additional school-specific comments follow:

- **Acton Elementary School** — This school's site, size and configuration, together with its score, suggest that it has the potential to serve a grades EE–5 elementary-level program over the long term. It will need complete updating of the older permanent construction, larger library and gym, and improvements to the building's spatial relationships. In addition, they will need adequate instructional support spaces and improvements to service systems. The long-term modifications also should address the marginally small classrooms in the old kindergarten wing and the 1991 addition, and those built in the new 200 wing to about 710 square feet, to support

the district's instructional program focusing on differentiated instruction. It is likely that site limitations will support a school for 500–550 full-time equivalent elementary pupils.

- **Baccus and Roberson Elementary Schools** — These two schools' sites, size, and configuration, together with their scores, suggest that they have the potential to serve a grades EE–5 elementary-level program over the long term. They will need complete updating of the older permanent construction, larger libraries and gyms, and improvements to the buildings' spatial relationships. In addition, they will need adequate instructional support spaces and improvements to service systems. The long-term modifications also should address the marginally small classrooms in the old kindergarten wings and the recent modifications to the original classroom wings, in order to support the district's instructional program focusing on differentiated instruction. It is likely that site limitations will support a school for 500–550 full-time equivalent elementary pupils at Roberson Elementary School; the site at Baccus Elementary School will support a larger school.

- **Mambrino School** — This school's site, size, and configuration, together with its score, indicate that it is serving the district's elementary school program reasonably well. Minimally, it needs more primary-level classrooms to meet state minimum standards for grades EE–1. For it to support elementary instruction for the long term, the facility should be evaluated for modification to classroom size throughout, based on the model determined appropriate for the district's vision of differentiated instruction. Most likely, the current intermediate wing will represent the most significant challenge, because of the irregular shaped classrooms and the setbacks in the exterior walls to accommodate windows in each classroom. The district is encouraged to consider modifications over the long term that will create similar sized rooms in both wings to allow the district space for differentiated instruction and maximum flexibility of use.

- **Oak Woods Intermediate School** — This school's site, size, and configuration, together with its score, indicate that it will struggle to serve any level of regular instructional program. The very small site is the single most controlling issue; if it cannot be expanded substantially the school will not be capable of effectively supporting the regular instructional program. In addition, the building would need to be evaluated to resolve potential structural problems, and the issues related to isolating sound transmitted through the structure from the gym to the adjacent classrooms. It is the preliminary finding of the study team that this facility should most likely be taken out of service for regular instructional use and be evaluated for liquidation or for conversion to special district uses, such as alternative programs or central administrative functions.

- **Acton and Granbury Middle Schools** — These schools' sites, size, terrain characteristics, and configuration, together with their scores, indicate that they will serve the district as middle schools (students within the grade span of upper elementary through grade 8). The configurations lend themselves most efficiently for three grade schools, most likely grades 6–8. The buildings have some minor shortcomings for the current middle school program, but are not appropriate for long-term service to high school grades without significant changes/ additions. The buildings generally meet or approximate state minimum standards; however, over the long term the classrooms and labs should be modified to accommodate the district's standard for group size and differentiated instruction.

- **Granbury High School** — This school's site, size, age, structural design, and classroom configuration make it marginally educationally functional for a high school. Its capacity is substantially less than the current high school enrollment (grades 9–12); the district has temporarily reduced the overcrowding by relocating the ninth graders to the new middle school campuses. Long-term use will require addressing the small classrooms as well as the inadequate circulation patterns and small specialized instructional spaces. The limitations of the site and the location of improvements significantly limit the school's potential capacity. Its long-term potential is further complicated by the 1997 additions that were in-fill projects designed to link a campus plan high school with additions. The disadvantage of such a plan is that it links older buildings with new ones. In the case of Granbury High School, the older facilities are of various qualities; none have been modified to current state or program standards and none have been refurbished. The original buildings are now 28 years old and need costly attention. The 18-year-old addition (the older elements of the 800s wing) is of poor quality and may not be cost effectively renovated/refurbished. Any long-term decisions relative to this campus should include a master plan that evaluates the upgrading or replacement of these older elements, should they be determined to be economically or educationally obsolete for major improvements.

  In terms of Granbury ISD's history of growth and forecasts for continued growth, the site should also be evaluated to determine how improvements could be made with the site in continuous use. It is more likely that the facility will need to be temporarily taken out of service (plan on two years) to allow renovations and improvements. The refurbishing might need to follow whatever improvements are made for expanded high school facilities. For example, whatever the decision regarding the high school size (duplicating the high school or splitting the program between two campuses), the improvements at the current location might follow the new facilities needed as a result of the high school size decision. Significant improvements should be predicated on a thorough study that concludes that such improvements are both feasible and make economic sense.

  In the planning that occurs around the high school question, the district also may look at temporarily housing some elements of the high school program at the old Meadows Middle School (now Brawner Intermediate School). This facility may serve the district better in the near/mid-term as a supplemental location for selected high school programs before it is converted for elementary-level uses (assuming that elementary use is the finding of a comprehensive facilities and site master plan).

- **S.T.A.R.S. Academy** — This school's site, size, and classroom configuration support limited use as an alternative education facility. Its design and location on the site purposely limit expansion potential. Experience with the program suggests that the interior configuration is not as supportive of the program as desirable; it should be evaluated for some modifications and/or minor additions to make it more supportive of instruction.

  It would appear that the district has committed itself to duplicating this program in another, more westerly location. The need for expanded services for the students served or eligible for this program is significant, and those needs should be addressed in the next round of facility improvements.

- **Behavior Transition Center** — This program is temporarily located in classrooms at the old intermediate school site. The space available in its current location in the buildings is limited; the district is encouraged to evaluate the original two-story building and the 1976 annex building on that same site as potential buildings for the relocation of the program. If the district's central administration relocates, the current administrative annex also could be considered for a more permanent location for the discipline alternative program.

In summary, the district has existing facility needs, and is faced with probable continued growth. The plan for upgrading and new construction should conform to expectations and planning policies established and confirmed by the Board of Trustees and community. Once these practices and policies are defined, the district should move aggressively toward establishing priorities and meeting needs.

Findings: Summary of Existing Conditions

Forecast Enrollment — Recent enrollment history reports that the district's membership has grown fairly aggressively during the last decade (2.2 percent annually), moderating to a slower rate during recent years (1.7 percent). Generally, growth patterns are more likely to mirror the most recent years. Allowing for that likelihood, Granbury ISD is expected to grow about 1.7 percent per year, or between 16 and 20 percent in the coming 10 years, averaging about 115 more pupils per year. The current depressed economy supports a period of continuing slower growth, but housing patterns seem be signaling a significant change in the current growth patterns, accelerating the rates of growth by 5 percent or more.

Looking at reasonable expectations for long-term growth, the trend will be toward continued steady growth through 2025–2030, with the trends suggesting that Granbury ISD could have over 11,000 students by then, and 3,000 or more high school students in grades 9–12.

Facility Conditions — The district's improvements range in age, generally from the years following World War II through those built in 1999 and 2000. Generally, the older facilities are the least functional. Only the Behavior Transition Center scores within the range where complete renovation or replacement is needed; it should be relocated to more suitable facilities. The high school facility and the intermediate schools are the general areas with the most need. Of these schools, Oak Woods Intermediate School is relatively new, but the shortcomings related to it make it a *bubble* school; its useful future as a regular school administrative unit is likely quite limited. The older Crossland Intermediate School scores about the same as Oak Woods Intermediate School, but is not subject to the same long-term limitations as Oak Woods Intermediate School. The scores of the other schools all fall within the good range, with the newest bordering on excellent; the older schools are generally lower in this range and the newest schools substantially higher.

It is said that school facilities become important when they get in the way of good instruction; Behavior Transition Center has reached that point, and Granbury High School and Oak Woods Intermediate School are close to that. The intermediate-level facilities are all in need of attention; the scope will depend on the decisions regarding school organization and school size that need to be addressed by the district. The facility serving the high school program has similar needs, and

their scope also should be determined after the questions of one or two high schools and ultimate high school size are addressed. In addition, student population should be monitored carefully.

Granbury ISD should develop a *long-range facilities master plan* that is based on decisions about school organization and sizes of the various administrative units. The scope of needs identified by a facilities master plan also will be impacted significantly by the amount of classroom space needed to support differentiated instruction at all levels.

The master plan should specifically address the refurbishing/renovation of Granbury High School, as well as the probable construction of a new, second high school. It also should address elementary school organization and evaluate options for Oak Woods Intermediate School. It should make recommendations regarding future uses/replacement of and plan the phased refurbishing and upgrading of the older schools. Brawner Intermediate School might be considered as temporary support for secondary programs during interim periods and/or during construction. The plan also should address issues of redistricting and determine if the existing inventory of surplus space and potential surplus space in the western areas of the district can effectively help meet growth that is more likely to occur in the eastern areas of the district.

Finally, depending on decisions regarding Oak Woods Intermediate School, interim uses of Brawner Intermediate School, and evaluating the effective pairing of Brawner Intermediate School and Roberson Elementary School for elementary programs within the next 10 years, the district may face the need for one or two more elementary-level schools as replacement facilities, and needed as a result of growth and the school size criteria established by its planning policies.

The district needs to deal with both existing needs *and* growth; Granbury ISD should become as aggressive with the process of replacing and upgrading schools for long-term use as it has been recently in addressing growth needs. *Solutions for both should be based on well-defined planning policies that reflect the district's instructional program and values.*

School Capacities — Currently, Granbury ISD has no collective space shortfall; however, Oak Woods Intermediate School is overcrowded, and most schools are at or very near their current capacities. Only Mambrino School and Acton Middle School have significant available space. The projected enrollment growth over the next 10 years will create an overall shortfall of about –1,083 pupils, or –87 classrooms.

Findings: Application of Site Criteria to Existing Schools

Site size is a concern for Granbury ISD. Functional school sites are determined by their useable acreage, which is the total acreage adjusted for easements, floodplains, irregular terrain, shape, and the like, together with appropriate vehicular and pedestrian access. It would be helpful for the district to evaluate its records and those of the central Appraisal District. The research team found discrepancies, some significant enough that they could impact planning decisions. The high school site data has the largest discrepancy; the central Appraisal District records show the high school site as 30 acres smaller than the acreage reported in Granbury ISD documents.

Relative to the sites, Oak Woods Intermediate School is the least functional, followed by the high school site of 70 acres, while those most appropriate for their uses include Baccus Elementary

School, Mambrino School, and the two new middle schools. Others have various degrees of shortcomings related to those key elements; generally all are functionally smaller than is appropriate. These site shortfalls will be exacerbated by the need to add classrooms over the coming years, and the temptation to resolve space shortages through additions to existing schools. Additions impact the real capacity of sites and the capacity of the core and support spaces; the scope of these impacts is generally geometric, due to the marginal capacity of these elements on limited size sites, before more additions.

The district's sites can be compared to the state recommended size standards on the following table:

Elementary Schools	10 acres, plus 1 acre for every 100 pupils expected
Middle/Junior High Schools	20 acres, plus 1 acre for every 100 pupils expected
High Schools	30 acres, plus 1 acre for every 100 pupils expected

These standards are for *usable or buildable sites* and are recommended by TEA, as well as various professional organizations. They are intended to provide room for (1) the building and related improvements; (2) activities fields including physical education fields, hard surface, and apparatus areas; (3) access, queuing lanes, driveways, and parking; and (4) performance/competition facilities, as appropriate. The *aspect ratio* of sites should also be considered when evaluating sites, meeting minimum acceptable ratios with adjustments up for *irregular shapes.*

Findings: Scope of Granbury ISD's Space Needs

If the district is to meet the housing shortfalls, Granbury ISD will need to enter another major construction and rehabilitation program in the immediate future. The actual 10-year program will most likely prioritize among the three to four new or replacement schools needed. In addition, refurbishing and some remodeling will need to be planned for the schools where age and system deterioration requires more attention to *control obsolescence.* The appropriate combination of facilities should be determined, based on planning policies related to quality instructional environments for Granbury ISD's students.

Policy Issues

The district should revisit specific policies regarding the size, organization (grade levels), and feeder patterns for schools in Granbury ISD. In the case of Granbury ISD, the most difficult issue to address promptly relates to the maximum size desired for its high school, whether a two-campus high school is appropriate, and when a second high school will be planned and opened. These policies need to be established in concert, and be based on educational principles tempered by community wishes. This is a necessary first step to a comprehensive facilities master plan.

School size and related organizational structure policies are necessary to developing efficient and functional administrative units; for growing enrollment districts the issue becomes one of avoiding an increase in administrative unit sizes until choking on inefficiencies. The district also will be

faced with establishing/confirming procedures for temporary and permanent attendance boundary adjustments as the district grows and adds space/facilities. The policies also should include a strategy for addressing orderly refurbishing and upgrading within the life span of the new construction, with controlling obsolescence. Such policies will significantly impact the nature of facility improvements most appropriate for Granbury ISD.

Relative to facility needs, Granbury ISD should establish policies addressing (1) the district's desired organizational structure [now grades EE–3, grades 4–6, grades 7–9, and grades 10–12] and (2) the size of school administrative units within that organizational structure as it relates to both the minimum and maximum desired sizes at each level. These policies should serve as the basis for planning the use of existing facilities and sites, and for planning future school building improvements. In establishing or confirming such policies, it should be recognized that they are often achievable only in stages, over a period of years.

In determining Granbury ISD's school organization, a number of issues should be considered. The following are examples of such issues:

1. The primary reason for selecting a specific organization should be for its educational appropriateness.
   - Does it best support the instructional program for our students?
2. In addition, the values and expectations of the community will influence these decisions.
   - Are there specific grades the community wants to be/remain separate?
   - What are the sizes that are considered too big? For elementary schools? For middle schools/junior highs? For high schools?
3. The existing inventory of usable space must be considered.
   - How does it best fit, long term, the organization Granbury ISD has adopted?
   - Does Granbury ISD need to phase into the selected organization? How will that be done?

Consider the importance of economies of size when establishing school sizes. Normally, schools of about 300 pupils are needed for the economic and organizational advantages of size to be achieved, and maximum sizes depend more on educational goals and local values. Educational research suggests that younger children be housed in smaller schools (between 400 and 600), that preadolescents be in schools no larger that 500–800, and high schools no larger than 800–1,500. Many school districts have larger schools at each organizational level, partly because of population density, rapid growth, and the cost of opening new schools. Even in the cases where larger schools are built, provisions are often made to create more intimate environments for children through organizational devices as teams or house plan schools. The degree to which this (smaller sized schools) is an important element in the decision-making process depends on the values of the local jurisdiction and their ability and willingness to bear the costs.

These decisions should be based on the school organization and school sizes that will best support the district's instructional program. If the instructional program can be supported by more than one organization, and if the community is comfortable with those alternatives, then the district should consider alternatives that also are the more cost efficient. It is important that facility planning also address the costs of operating and efficient staff utilization, as the bulk of operational budget expenditures are for personnel and the ongoing supplies for operation.

Any renovation or reuse of existing facilities will necessitate careful consideration of spatial relationships in the redevelopment of the existing facilities that are determined capable of supporting long-term use cost effectively. The kinds of problems that will accompany master planning sites relate to the cost effective provision for timely and easy student movement/ circulation within/between buildings, the placement of libraries and other centrally located instructional support spaces and pull-out program spaces, administrative suites, visitor parking, student drop-off and pickup locations with queuing lanes, and, in the case of high schools, student parking will all impact the reasonableness of redevelopment plans.

Recommendations

Acknowledging the current and projected needs and the limited educational functionality of some existing buildings, the study team recommends the following planning considerations.

A. It is recommended that the board adopt and/or confirm planning policies regarding school organization, school size, attendance area changes, feeder patterns, and student busing.

B. Relative to the uses of portable classrooms, if it has not already done so, Granbury ISD is encouraged to establish a policy setting forth a general statement regarding when they will be used and under what limitations they will be used. Long-term use is discouraged due to the relatively short life expectancy, safety considerations, and the added costs associated with operating and maintaining such facilities.

   CONSIDERATIONS: Such policies often address a district's intention to use such spaces for limited periods (five years is suggested), to be replaced by permanent facilities within a reasonable period, and that such uses are to support growth and/or the introduction of new programs. Such policies also may address under what circumstances temporaries/portables may be used for a longer period of time (such as programs that are externally funded for two- to five-year cycles). However, even with such programs, the policy should acknowledge the need for permanent space if the program survives for five to 10 years.

C. It is recommended that the district review and commit to writing educational programming for all school administrative levels once the administrative organization has been established. The educational programming should describe the current and anticipated instructional program for each level and the spaces needed to support that program.

   CONSIDERATIONS: Granbury ISD is operating under circumstances where space shortages for basic academic programs at some levels will lead to necessary and desired programs to be curtailed and keep new programs from being implemented; this is especially likely at the high school level. Revisit programs; determine their need and/or value and the space needed to properly support or integrate them. Every effort should be made to conduct this evaluation in an environment when the stresses caused by overcrowding will not prevent a thoughtful analysis. As it relates to facility needs, conduct the review in order of overcrowding and deteriorating physical condition of plants.

The study team recommends the following relative to facility needs considerations in Granbury ISD (not necessarily in order of priority).

D. It is recommended that Granbury ISD establish a *long-range facilities plan* for the district that addresses school organization and school size, and addresses the issues of elementary organization and single versus multiple high schools and, if multiple high schools, at what point/size a second high school is developed. The district may want to consider retaining an educational planning professional to assist with the development of this longer-term vision.

E. It is recommended that Granbury ISD evaluate the amount of space needed in the general classrooms to support the model of differentiated instruction as conceived by the district, and use that information to help establish the scope of new construction and of renovations as part of regular refurbishing program.

F. It is recommended that Granbury ISD address needs of Oak Woods Intermediate School and the probable relocation of the students served at this campus, as part of the larger issue of suitable space for the intermediate grades in the district, whether at grades EE–5 elementary schools or intermediate schools.

G. It is recommended that Granbury ISD evaluate Crossland Intermediate School as a candidate for full refurbishing, renovations, and possible additions, in keeping with its long-term intended use.

H. It is recommended that Brawner Intermediate School be evaluated for two separate functions; consider the plant as temporary housing for some secondary programs while achieving the desired high school organization and location(s). Also evaluate the facility, renovated as an intermediate-grade facility, as either a stand alone intermediate school or as a partnered facility with Roberson Elementary School as an elementary school administrative unit. Finally, evaluate Brawner Intermediate School for its liquidation value to Granbury ISD.

I. It is recommended that Granbury ISD carefully evaluate the existing high school and possible renovations and expansions, consistent with the facility planning policies, including the new middle school facilities on the contiguous site. Evaluate the best use for the current high school facility, reflecting planning policies relative to high school size and organization. A number of options exist, depending on the desired size and number of high school(s), and whether to house grades 9–12 on a single campus. Depending on those policies, the current high school could probably be renovated as a 1,500–1,750 student grades 9–12 high school, or a campus for that many housing a portion of grades 9–12, to eventually become either a freshman/sophomore center or a junior/senior center, etc.

J. It is recommended that Granbury ISD redevelop and refurbish the existing high school to its long-term use.

K. It is recommended that Granbury ISD develop specific plans for any school involved in redevelopment or with additions, so that construction activities can be separated to retain safe student access and safe student movement during the construction, and that the redeveloped facility and site have good spatial relationships that will work well for the intended program and purpose.

L. It is recommended that Granbury ISD evaluate alternate uses for school plants that may be phased out of use for the regular instructional program, including their potential for liquidation. Evaluating alternate uses should include the costs associated with making the facility support the change of uses being considered that are district uses.

M. It is recommended that Granbury ISD refurbish and renovate existing schools, as they mature to 20–25 years old, understanding that heavy use, even when temporary, accelerates the obsolescence that all components and systems experience.

N. It is recommended that Granbury ISD evaluate ways to improve site access routes, traffic circulation, vehicular queuing lanes, and vehicular separation at existing campuses. Plans should provide each campus safe, *separated* car and bus drop-off and pickup, separated student ingress/egress and parking, as well as staff and visitor parking. Visitor parking should be convenient to the school's primary visitor entrance.

O. With respect to expanding program needs, recognize that many support services and spaces are not properly accommodated or are housed in stolen or minimal spaces throughout the district. Many of these programs did not exist when buildings were originally constructed. Plan to meet these needs based on program priorities and available funding. The listing of such spaces/services includes the following (not all-inclusive and not all apply to every facility) and should be considered as the instructional program needs are defined in space requirements:

- Adequate number of larger rooms for grades EE–1
- Larger school libraries where undersized
- Larger specialized labs and rooms for science, computers, electives, career and vocational programs, and the fine arts
- Larger general classrooms, where space for student accessed computers and/or differentiated instruction
- Sufficient and properly equipped space for self-contained special education needs, especially for multiple/severe conditions and the emotionally disturbed
- Suitable and centrally located resource teacher rooms, with storage for materials and manipulatives
- Space for itinerant staff (speech therapists, psychologists, diagnosticians, ESL teachers, and similar), with storage (generally, sharing of itinerant space is appropriate)
- Adequate student and athletic dressing facilities and gym spaces
- Adequate teacher break areas, work areas, and equipment
- Adequate classroom boards, casework and storage
- Adequate classroom lighting, especially on teaching boards and surfaces, and sufficient electrical outlets
- Suitable student personal and project storage, convenient and accessible
- Adequate preparation kitchens and serving areas for breakfast and lunch programs
- Showers, eyewashes, safety cut-offs for all gas and utilities in shops and labs
- Sufficient mechanical exhaust ventilation (CFM movement) in restrooms, labs, chemical, custodial, and caustic storage areas, etc.
- Administrative suites, with administrative offices large enough for conferences with four to six people, PEIMS work/records storage, adequate work-production area, reception area, parent waiting area, small conference rooms (for ± 6–10 people), book room, school materials storage, etc.

- Health clinics that include adequate space for waiting, examination, resting, storage (including secure, refrigerated storage for medicines), fully accessible restrooms, etc.
- Counseling offices/suites large enough for small-group work, especially for lower grades, suitably located away from and accessible separately from administrative offices
- Large conference room(s) to accommodate up to 15 people (for ARDs)
- Sufficient and centrally located custodial closet(s) and storage
- Handicapped-accessible buildings, classrooms, restrooms, drinking fountains, etc.

EXTERIOR SPACES/SERVICES

- Adequate, separated, and convenient parking for staff, visitors, and students (high school) with separated points of ingress/egress
- Suitable hard surface, all weather outdoor play and activities areas
- Suitable safe use zones for all equipment areas with safe and appropriate cushioning materials to protect falls
- Maintained grass play fields for group and team activities
- Sufficient updated and safe outdoor apparatus and/or play equipment
- Fenced and secure playground areas, especially for younger children
- Separation of auto and bus traffic, providing for safety of students

P. It is recommended that Granbury ISD plan for adequate housing for special needs students at all schools. The district's students have increasing incidences of conditions that require a self-contained environment. The district's efforts should be directed to include larger suitable spaces for self-contained classrooms, support, and resource programs, as well as larger suitable spaces for self-contained classrooms for behavior adjustment and multiple/severe disability classes at age-appropriate locations (with occupational and physical therapy space), and including a fully accessible restroom with an appropriate cleanup shower, changing table, and provisions for hoists.

Q. As part of a facilities master plan, evaluate facilities kept in service for instructional or public use relative to handicapped-accessibility issues. Texas Accessibility Standards requirements should be implemented as part of any long-term use program.

R. As part of a facilities master plan, implement the district's technology goals. Continue to provide funds for the Local Area Networks, wireless connections, Wide Area Network, media distribution facilities on each campus (recommend locating the operating equipment rooms with and under the supervision of the library/media centers), and satellite linkages. Ensure that appropriate media provisions are incorporated into all renovation and improvement plans, including classrooms that are large enough to accommodate the student load and the targeted number of student access classroom computers.

S. Granbury ISD should note that most of its current general classrooms are small for a full load of students and the additional room needed for the anticipated four to five classroom-based student computers and differentiated instruction in each general classroom. Usually, programs using classroom computers will be used by both individuals and by small groups for cooperative or collaborative learning. Each computer should have about 50–55 square feet of available space for such activities. Granbury ISD should consider modifying any classrooms kept in use long term to accommodate computers and differentiated instruction.

T. It is recommended that Granbury ISD identify a future suitable location to relocate central administrative functions, such as Oak Woods Intermediate School or Brawner Intermediate School, centralizing all district administrative services to a single location to improve management efficiency and to allow for suitable expansion of services and staff.

U. It is recommended that Granbury ISD plan to locate an alternative, satellite transportation facility, more centrally located within the district boundaries, to serve as an overflow transportation facility and to eventually become the new transportation facility, and allow the existing shared site to serve the district's maintenance, warehousing, and related functions.

V. Consider providing community use, tutorials, and volunteer program space (work and/or storage space), especially at the elementary-level campus(es), to bolster the community support and involvement programs, as well as any volunteer programs now present or planned.