

ANCHORAGE SCHOOL DISTRICT
ANCHORAGE, ALASKA

ASD MEMORANDUM #214 (2000-2001)

March 19, 2001

TO: SCHOOL BOARD

FROM: OFFICE OF THE SUPERINTENDENT

SUBJECT: SIX-YEAR CAPITAL IMPROVEMENT PLAN ANALYSIS AND
RECOMMENDATIONS: JULY 1, 2001 - JUNE 30, 2007

RECOMMENDATION:

It is the Administration's recommendation that the School Board approve the Anchorage School District *Six-Year Capital Improvement Plan Analysis and Recommendations: July 1, 2001 – June 30, 2007*.

PERTINENT FACTS:

School Board Policy 740-743, requires an annual update of the six-year Capital Improvement Plan (CIP), including student membership projections, analysis of classroom space requirements, recommendations for site acquisitions and construction of new facilities. This memorandum presents the *Six-Year Capital Improvement Plan Analysis and Recommendations: July 1, 2001 – June 30, 2007* (Attachment A). Systematic planning and analysis have been completed resulting in the production of this document.

In developing the analysis and recommendations contained in the CIP, several sources were utilized. The primary source of data for the analysis was the updated six-year enrollment projections. Individual school projections as well as schools grouped according to level or attendance area formed the basis for analysis. Particular emphasis was made on schools currently at or projected to be over 120 percent of their program capacity. Again this year, the recommendations of the ASD Capital Request Committee were considered as part of a more cohesive set of recommendations. The priority rankings associated with most of the CIP recommendations are a result of prior Board action in combination with administrative review. It should be noted that additional classrooms resulting from new schools or additions are shown in the CIP analysis for funded projects only.

Table 32 in the CIP shows that the overcrowding problems for elementary schools that were prevalent five years ago, have for the most part been resolved. Five years ago the

elementary schools were at 110 percent of their program capacity. The District's elementary schools had 1,275 classrooms serving 27,537 students. During the past five years the elementary school capacity has increased to 1,439 classrooms serving 26,360 students. On September 30 of this school year, the elementary schools in the District were at 94 percent of their program capacity. The elementary schools are projected to be at 98 percent of program capacity for the 2001-2002 school year and at 93 percent by September 30, 2006. Unfortunately, the elementary students in the District do not distribute themselves evenly across the available classroom space. There exist pockets of overcrowding at a few elementary schools in the District.

Table 37 in the CIP shows schools currently at or above 120 percent of capacity or projected to be at or above 120 percent of capacity within the next six years. On September 30 of this school year, there was only one elementary school at or above 120 percent of its program capacity. This is significantly lower than the 19 elementary schools at or above 120 percent of capacity five years ago on September 30, 1995.

Middle schools, overall, are at 87 percent of capacity this school year. Table 33 shows that middle schools are projected to remain at around this level for the next five years with a decline to 83 percent of capacity projected for the 2006-2007 school year.

Table 34 in the CIP shows that senior high schools, overall, are at 101 percent of capacity for the 2000-2001 school year. However, the senior high schools are projected for significant growth over the next six years, reaching 112 percent of program capacity by the start of the 2003-2004 school year. A new high school opening in South Anchorage in 2004-2005 will relieve overcrowding in that area, and lower the overall percent of capacity utilized for senior high schools back down to 100 percent.

A comprehensive analysis of the current and projected enrollment data and planning alternatives resulted in the recommendations contained in the CIP. The recommendations directly address schools that are currently at or above 120 percent of capacity, or are projected to reach 120 percent of capacity during the six-year projection period. The recommendations also include projects previously approved by the School Board and most of the projects recommended by the ASD Capital Request Committee. It should be emphasized that recommendations that have a dollar figure attached to them are for projects for which funds do not currently exist.

It should be noted that a meeting was held on March 12, 2001 for discussion of the CIP draft document with the Municipality Planning and Zoning Commission. The purpose of the meeting was to provide the Planning and Zoning Commission with the opportunity to review the draft document and make their recommendations to the School Board.

The analysis and recommendations that address overcrowded schools and school renovations assume the current program structure including the Board approved grade

6-8 configuration for Mirror Lake Middle School. Chugiak Elementary School and Fire Lake Elementary School have a grade K-5 configuration resulting from the approved grade 6-8 configuration for the Mirror Lake Middle School. Girdwood Elementary has a K-8 program. The School Board previously approved expansion of the Birchwood ABC and the Northern Lights ABC K-6 programs to include grades 7-8.

ASD Program Capacity:

The number of students that a given District school can effectively house is determined through the application of program capacity formulae. These formulae differ for elementary, middle, high school, and special service facilities. The intent is to derive a measure of existent and projected crowding or under-utilization for all District schools.

The formula used for elementary schools with half-day kindergarten is a ratio of 21:1, or an average of 21 students per available classroom. This formula is applied by multiplying the number of classrooms in the facility by 21, which results in the number of students that a given facility can optimally house. An example is given below:

Sand Lake Elementary School
21 students x 24 classrooms = 504 student program capacity

This is not to say that the typical situation at the elementary level would have 21 children in a regular classroom; normally there would be more. The formula takes into account the utilization of classroom space for such programs as resource special education, Title I, bilingual education, and Indian Education. The ratio 21:1 is an average that is applied Districtwide.

In a similar fashion, the capacity for elementary schools operating full-day kindergarten programs is a ratio of 19:1. The reduction of the capacity ratio reasonably reflects the increased space utilization that occurs with full-day kindergarten programs, and effectively reduces the capacity of the facility to accommodate the inclusion of full-day kindergarten students. In most schools, changing from half-day to full-day kindergarten will double the number of classrooms required to house the kindergarten students. The effect of full-day kindergarten will be to lower the program capacity factor from 21:1 to 19:1. Thus, an elementary school with 24 classrooms and a program capacity of 504 offering half-day kindergarten will have a revised program capacity of 456 with the implementation of a full-day kindergarten program. An example of a school with full-day kindergarten is given below:

Eagle River Elementary School
19 students x 24 classrooms = 456 student program capacity

Board action during the past three years has significantly increased the number of elementary schools offering full-day kindergarten. Only two elementary schools will

have half-day kindergarten at the start of the 2001-2002 school year. This action will result in a lower program capacity of approximately 400 students districtwide.

The amount of available classroom space in certain schools, Kincaid and Creekside Park, for example, is affected by the housing of self-contained special education programs exceeding the norm of other District schools; these are designated as “intensive needs” sites. Program capacity ratios for these schools are adjusted to reflect the impact of self-contained special education on their program capacity.

Program capacities for elementary schools now vary from as low as 18:1 up to the baseline standard of 21:1, depending upon the number and type of special programs within a given school. Program capacities for all schools are reviewed each year by a committee comprised of the Executive Directors for Elementary Education, Middle School Education, High School Education, Special Education, Technology/MIS; the Demographic/GIS Manager, and the Assistant Superintendent for Instruction. Most of the year-to-year adjustments are made to reflect changes in the number of self-contained special education programs housed within a school. These adjustments are then made in the Six-Year Capital Improvement Plan and are the reason that program capacities for some schools may differ from year to year.

The baseline ratio used in the analysis for secondary space requirements is 23:1. However, the multiplier is applied to all teaching stations. A teaching station is defined as any location where a regularly scheduled class could take place. This formula is derived from a much more complex process which calculates the program capacity of a secondary facility according to the number of each type of classroom multiplied by the optimal number of students in that type of classroom. Staff research indicates that the ratio of twenty-three (23) students per teaching station approximates the more complex derivations very closely. An example is given below:

Wendler Middle School

23 students x 42 teaching stations = 966 student program capacity

Secondary schools that have intensive needs special education programs that impact classroom space have a reduced program capacity based upon a ratio of 22:1, i.e., 22 students per teaching station. Again, this type of review and adjustment takes place each year in recognition that program capacity does vary with the impact of special education programs above the norm.

A walk-through review of the program capacity of each ASD middle school was recently completed. This resulted in revised teaching stations for several middle schools. Those revised program capacities are included in this CIP. The old and new program capacities for middle schools are shown in the following table.

	Old Capacities			New Room Count Capacities		
	Number of Teaching Stations	Capacity Multiplier	Program Capacity	Number of Teaching Stations	Capacity Multiplier	Program Capacity
Central	40	23	920	34	23	782
Clark	42	22	924	41	22	902
Goldenview	46	22	1,012	48	22	1,056
Gruening	37	23	851	36	23	828
Hanshew	44	23	1,012	44	23	1,012
Mears	46	22	1,012	43	22	946
Mirror Lake	46	23	1,058	49	23	1,127
Romig	48	22	1,056	45	22	990
Wendler	44	23	1,012	42	23	966
Total			8,857			8,609

Similar reviews are planned for elementary schools and senior high schools next school year.

Research into current school conditions has shown that the application of ratios varying from 18:1 to 21:1 for elementary schools and ratios varying from 22:1 to 23:1 for secondary schools provide reasonably accurate measures of under utilization and crowding of School District facilities. The ratio applied to special education services is 7:1.

Schools are judged to be over or under program capacity according to the following guidelines:

<95 percent	Under Program Capacity
95 - 105 percent	Normal Capacity Range
106 - 110 percent	Slightly Over Program Capacity
111 - 120 percent	Over Program Capacity, Relocatables May Be Required
121 - 130 percent	Over Capacity Becoming Severe, Relocatables Usually Required, Problem Should Be Addressed In Six-Year CIP

>130 percent

Severely Over Capacity, Additional Relocatables Required, Plans Should Be In Place for Boundary Change, School Addition, or New Facility In Area

CIP Assumptions, Analysis, and Recommended Action:

Recommendations to construct new schools, construct classroom additions, close schools or to study potential boundary changes are based in part upon an analysis of the membership forecasts, an analysis of current classroom program usage and comparisons of projected classroom requirements with the available classroom space in each senior high attendance area. The following are highlights contained in this year's CIP projections, analysis and recommendations:

CIP Assumptions

- The net migration of students leaving the District versus students moving to the District for the first time will be nearly equal for the next six years. This is in marked contrast to the negative migration factor that has been observed for the past three years. This assumption in combination with the increased number of schools having full-day kindergarten is the basis for the increase in the overall membership projections for next year.
- Kindergarten enrollment will remain around the 3,600 level for the next six years. This is due the assumption discussed above and the increase the number of schools having full-day kindergarten.
- These two assumptions are the primary factors in the revised projections of total membership exceeding 50,000 students for the next three school years.
- The student membership forecasts are based upon the assumption that the population of the Municipality of Anchorage will exhibit the moderate growth displayed since the 1993-1994 school year. Table 2 in the CIP shows the population changes by year for the period 1990 through 2000. It should be noted that this moderate growth of the Municipality of Anchorage population is due to more births than deaths in the general population. However, a slowing economy with job reductions in the Lower 48 could result in increased migration to the Anchorage area. Should this occur, there could be an increase in ASD student population not reflected in the current projections.
- The closure of neither Elmendorf Air Force Base nor Ft. Richardson Army Base is assumed in the six-year projections.

- Major capital projects such as the construction of the natural gas line from Prudhoe Bay or the opening of ANWR for oil development have not been assumed in the student population projections contained in 2001-2007 CIP. The military missile defense system, if approved and implemented in Alaska, could have an effect on the Anchorage economy. Should one or more of these major projects become a reality during the six-year projection period then there would probably be increased student membership above the current projections.

CIP Analysis

- The impact of Charter schools on total District enrollment has been included in the CIP this year. The six-year projections for Charter schools assume a constant population at their approved enrollment.
- The District is projected to have a total membership of 50,181 students on September 30, 2001. This represents an increase of 661 students over the current school year. Should this projection be realized, it will be the largest membership in the history of the District.
- The District is projected to remain around the 50,000 for the following two school years followed by membership declines starting in 2004-2005. The declines are the result of the cumulative effect of the smaller kindergartens moving up through the grades.
- This year the elementary grades had 27,220 students on September 30, a decrease of 320 students from the enrollment of 27,540 observed on September 30, 1998.
- The elementary population is projected to increase by 243 students from the current school year to next year. The K-6 population is projected for a decline of 1,514 during the following five years. This significant decline is due to the effect of the smaller kindergarten classes observed for the past three years. Smaller kindergarten classes have a lasting and cumulative effect on the total District population as they progress through succeeding grades.
- CIP Table 37 shows that five elementary schools are projected to be at or above 120 percent of program capacity for coming school year, 2001-2002. By the end of the six-year projection period there are also five elementary schools projected to be at or above 120 percent of their program capacity.
- This year the middle schools housed 7,457 students on September 30, an increase of 172 students from last year. The middle school membership is projected to increase by 125 students over the next two years, remain around that level for the next two years, and then exhibit a decline over the last two years of the projection period. The projection for 2006-2007 is 7,115 students.

- Table 33 in the CIP presents the Analysis of Middle School Space Requirements for the next six years. The summary portion of Table 33 shows that middle schools are projected to have memberships that will utilize between 83 percent and 88 percent of the total program capacity over the six-year projection period. The individual school portions of Table 33 show that two middle schools, Central and Clark, reach 115 percent of their program capacity near the end of the six-year projection period, while three middle schools, Gruening, Hanshew, and Mirror Lake are significantly under their program capacity by the 2006-2007 school year.
- This year the senior high schools housed 12,375 students on September 30, an increase of 418 students from last year. The senior high school membership is projected to increase by 850 students over the next six years. This is due to the larger elementary grades from the early 1990's finally reaching the senior high school level. The largest increases are projected for West and Bartlett, with gains of 371 and 175 respectively. The Dimond and Service attendance areas are projected for a combined gain of 306 students over the six-year period. This is the area that will include the new South Anchorage senior high school.
- Table 34 presents the Analysis of Senior High School Space Requirements for the next six years. The summary portion of Table 34 shows that senior high schools are projected for steady growth over the next six years, with utilization rates projected to increase from 101 percent districtwide for this school year to 113 percent in 2003-2004. The opening of the new South Anchorage senior high school will reduce that to 100 percent in 2004-2005.
- Chugiak Senior High School is projected to increase from 118 percent of capacity utilized this year to 120 percent of capacity by 2003-2004. Service Senior High School is projected to increase from 114 percent utilization this year to 125 percent utilization by 2003-2004. The opening of the new Dimond Senior High School will create a severe overcrowding problem at Dimond during the 2003-2004 school year. This is due to the fact that the new Dimond Senior High School will have a reduced program capacity based upon the new senior high school specifications. The projection for Dimond for 2003-2004 is 2,235 students, which is 145 percent of program capacity. However, the opening of the new South Anchorage Senior High in 2004-2005 will solve the overcrowding problem at both Dimond and Service.
- The minority population in the District will continue to increase at approximately 1 percent per year. This has been the trend for the past 20 years and has been very steady and predictable. The minority population increased to 18,613 (38 percent) this school year, a gain of 1,078 students.

Actions:

To address the needs created by overcrowding associated with student population growth and the needs identified in the Facility Analysis Study (retrofit study) and the Facility Audits conducted by the ASD Facilities Department, the CIP contains recommendations addressing identified needs over the six-year period. Renewal, Programmatic and Code Upgrade projects are based upon the age of the facility, the District's Retrofit Study, and Facility Audits in progress for each of the schools. Cost estimates are based upon FY2001 costs. Adjustments to the cost estimates would occur in succeeding years with construction cost escalation and finalized scope of work based upon audit completion.

It should be kept in mind that the six-year CIP is a needs-based document established primarily upon an analysis of school program capacities, projected enrollments, and condition of facilities. The Board has, in the past, directed that the CIP address those schools currently at or projected to exceed 120 percent of their program capacity. Recommendations may take the form of additions to existing facilities, new schools, or boundary changes. Relocatables and double shifting are considered short-term relief to overcrowding and are not endorsed as solutions in the CIP.

The following are a summary of the CIP recommendations for the 2001-2002 school year:

Obtain funding for the Wendler Middle School Phase 2A renovation (\$13.5M)

Obtain funding for the Service High School Phase 2A renovation (\$15.34M)

Obtain funding for the Ptarmigan Elementary School addition (\$3.5M)

Obtain funding for the King Career Center renovation (\$3M)

Obtain funding for the East High School Phase 2 & 3 renovation (\$13.572M)

Obtain funding for the Bartlett High School Phase 2 renovation (\$17.071M)

Obtain funding for the New Eagle River High School construction (\$40.2M)

Obtain funding for planning Whaley School renewal, programmatic & code upgrades (\$75,000)

Obtain funding for Polaris K-12 Phase I planning, renovation and addition (\$3.5M)

Obtain funding for districtwide roof replacement & repairs (\$1.275M)

Obtain funding for districtwide mechanical projects (\$4.54M)

Obtain funding for traffic safety upgrades at selected sites (\$675,000)

Obtain funding for districtwide renewal projects (\$3.21M)

Obtain funding for electrical upgrades to support computers (\$1.553M)

Obtain funding for districtwide maintenance equipment (\$734,000)

Obtain funding for traffic safety planning (\$110,000)

Complete the following studies and site selections:

- 1) Administrative facility study
- 2) Charter school housing (on going study)
- 3) Site selection for a new Chugiak/Eagle River elementary school
- 4) Site selection for new Muldoon area middle school
- 5) Space utilization study involving Bayshore, Campbell, Chinook, and Taku
- 6) Review need for space utilization study involving Susitna and surrounding schools
- 7) Review need for space utilization study involving Alpenglw and surrounding schools
- 8) Student transportation facility site selection/funding options

The total amount of the funds needed for the 2001-2002 CIP recommended projects is \$122,035,000. Funding for all of the projects would become available if voters in the April 3, 2001 Municipal Election approve Board and Assembly approved bond propositions.

Tables 38 and 39 in the CIP contain the CIP Recommendations and Project Schedule. These tables will be revised after the April 3, 2001 Municipal Election to reflect funding that may become available through the proposed bond propositions. Projects funded through approval of bond propositions will be removed from the 2001-2002 listing and the other CIP priorities adjusted accordingly.

Table 40 shows the agency interface required for undeveloped site infrastructure and future municipal utility connections.

CC/PM/NDH

Attachment

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