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Alameda Unified School District

Facilities Master Plan

Excellence & Equity For All Students

May 13, 2014

AUSD ALAMEDA UNIFIED SCHOOL DISTRICT
Excellence & Equity For All Students

QUATTROCCHI KWOK ARCHITECTS

Acknowledgements

Alameda Unified School District's 2014 Facilities Master Plan could not have been completed without the valuable contributions of the district's staff, faculty, students, and parents/guardians, as well as the participation of other community members.

Approximately 400 people attended at least one of the 54 meetings held between November 2013 and April 2014. Those gatherings included Educational Specifications meetings, school site meetings, and community outreach meetings.

Quattrocchi Kwok Architects and the Alameda Unified School District would like to sincerely thank all of the participants for their time, effort, and expertise. Public schools are an integral part of local communities and both QKA and AUSD deeply value the opinions and insights offered by the people who learn in these facilities, work in these facilities, gather in these facilities, and live near these facilities.

See the Acknowledgements (Appendix A) for a complete list of participants.

Introduction

"All students have the ability to achieve academic and personal success." *AUSD Guiding Principles*

Alameda Unified School District (AUSD) serves a diverse and vibrant community with a variety of schools and educational programs.

More than 9,500 students in grades pre-K through 12, as well as a wide range of community members, use the district's 18 school sites.

The 2014 Facilities Master Plan (FMP) is the first step in what will be a multi-year effort to transform the district's facilities into 21st century learning environments that support the success of Alameda's children and adults alike.

"School Facilities affect learning...we already know what is needed: clean air, good light, and a quiet, comfortable, safe learning environment."

- National Clearinghouse for Educational Facilities

Background

Like many school districts in California, the Alameda Unified School District is largely composed of aging facilities. Of the eighteen school sites, only three were built in the last 40 years and just one was built in this century. Most were built in the 1930s, 1940s, and 1950s; Historic Alameda High School was built in 1924. The average age of Alameda's school sites is 52 years old.

The district has worked to maintain these facilities and keep them in good working condition. However, like schools across the state, they have suffered from years of continuous, heavy use, combined with declining state funds for public school maintenance, changing curricula, and rapid advances in the kinds of technology required to meet state educational standards.

Measure C

AUSD's last facilities improvement program was funded by Measure C, a $63 million facilities bond that Alameda voters approved in 2004. AUSD used this funding to repair, upgrade, and modernize its schools, including:

- Infrastructure and utilities
- Technology
- Mechanical systems
- Lighting systems
- Accessibility upgrades
- Windows and roofs
- Interior finishes
- Playgrounds

These improvements, unfortunately, only scratched the surface of what is needed to provide AUSD's students and community members with facilities that truly meet their needs. Indeed, a 2012 Facilities Assessment Report found that AUSD's facilities require about $92 million worth of work in order to meet current codes and regulations, replace infrastructure that had reached the end of its service life (such as heating systems), and upgrade roofs, power and data systems, lighting, PA and phone systems, drop-off areas, and many other features that are crucial to providing a safe, secure, and modern education to the community's public education students.

In addition, in recent years, changes in curriculum both across the district (e.g., the adoption of the Common Core State Standards) and at individual schools (e.g., the creation of magnet and innovative programs) have led to changing facility needs across the district.

The mission of the Facilities Master Plan is to guide facilities decision making to support student learning and achievement.

Facilities Master Plan (FMP)

The combination of these factors led AUSD's Board of Education to approve the creation of a Facilities Master Plan in September, 2013. The goal of the plan was to evaluate the district's campuses and identify improvements that would ensure the comfort and safety of students and staff, support the district's educational programs, and fulfill the needs of each school community.

That same month, through a competitive selection process, AUSD selected the architectural firm of Quattrocchi Kwok Architects (QKA) to evaluate the District's facilities, engage the schools and community in a collaborative planning process, and create a Facilities Master Plan. The firm began its work in October, 2013.

That Facilities Master Plan has four primary goals:

- Assess the physical condition of each facility.
- Identify facilities improvements to meet the needs of the district's educational programs.
- Engage each school community in a discussion about facilities needs and priorities for their schools.
- Develop a comprehensive Facilities Master Plan for each facility that establishes a long-term vision for the school.

Methodology

Working with AUSD staff, Quattrocchi Kwok Architects developed a comprehensive process to engage the Alameda community and develop a 2014 Facilities Master Plan.

That process was composed of five major components:

1. Educational Specifications
2. Demographic Analysis
3. Facilities Assessments
4. School Site Master Planning Meetings
5. Community Outreach

1. Educational Specifications

The purpose of the Educational Specifications (“Ed Specs”) is to provide a physical standard for facilities across the district. The Ed Specs reflect the educational programs and goals at each grade level (elementary, middle and high schools) and the corresponding facility requirements to meet those goals. It is intended to provide a standard level of facilities for each school type and to help ensure equity among campuses throughout the district.

Created with input from school site principals and staff, as well as department heads and district office personnel, the Ed Specs served as an invaluable verification tool during the school site Facilities Master Planning process. AUSD's Board of Education approved the Ed Spec as a stand-alone document on March 25, 2014. It is referenced, but not included in this document.

2. Demographic Analysis

Long-term master planning for a school district cannot happen without an accurate projection of long-term demographic trends in the surrounding community. Building on their 2009 enrollment projections, Jack Schreder & Associates conducted a new demographic analysis in the spring of 2014.

The firm found that overall, AUSD will experience moderate growth in the next 10 years. Within that overall trend, however, some schools' enrollments will increase, while others will decrease. All of the school site master plans reflect the new enrollment projections through the 2023-2024 school year.

AUSD's Board of Education approved the Demographic Analysis on April 29, 2014. It is referenced, but not included in this document.

3. Facilities Assessments

In 2012 QKA performed a comprehensive facilities assessment of 17 AUSD school sites. ASTI at the College of Alameda was not included. The first step in this process was meeting with AUSD maintenance personnel to review the conditions of building infrastructure and mechanical systems, including plumbing systems, HVAC (Heating, Ventilation and Air Conditioning) and electrical systems. The next step in the Facilities Assessment was a review of existing data regarding each site including record drawings and the Division of the State Architect (DSA) records, where available.

After spending 150 hours at the school sites and producing hundreds of pages of detailed notes, QKA identified more than $92 million of needed improvements. The 2012 facilities assessment work has been combined with the results of the Facilities Master Planning at each school to create a comprehensive list of proposed facility improvements for each campus.

The results of the 2012 Facilities Assessment are also summarized in the "Existing Conditions Summary" for each school.

2014 Supplemental Facilities Assessment

In conjunction with this Facilities Master Plan, the Board of Education directed QKA to perform a supplemental assessment of all district properties not currently used as educational facilities. Those properties included:

1. Historic Alameda High School (currently unoccupied)
2. Thompson Field
3. 2472 Eagle Avenue (former Island High School site)
4. Food Services Warehouse
5. Maintenance and Supplies Yard
6. 240 Singleton Avenue (formerly WCDC, currently unoccupied)
7. 250 Singleton Avenue (formerly Island High School and Miller School, currently unoccupied)

The centerpiece of the supplemental assessment was an on-site visual inspection of each site. The 7 site visits were conducted by QKA and AUSD staff and included a review of the site with the MOF personnel at each facility, plus a thorough room-by-room inspection of every building. QKA and AUSD assessed the condition of various features at every site to identify needed facilities improvements — defined as changes required in order for the facilities to operate safely, effectively and efficiently.

As these sites are not school facilities, QKA did not hold planning meetings. Instead, QKA and MOF consulted with district staff to assess the condition and improvements needed at each facility.

Authentic community engagement re-establishes the connection between schools and communities, creating more effective schools and healthier neighborhoods.

10 Principles of Authentic Community Engagement. KnowledgeWorks Foundation

4. School Sites Master Planning Meetings

QKA conducted School Site Master Planning Meetings with each school site community throughout the winter and spring of 2014 to gather data on a wide range of factors, including safety, security, technology, enrichment programs, enrollment projections, performance space, athletic fields, traffic control, and classroom sizes. Altogether, QKA facilitated:

- Two meetings at each elementary and charter school
- Three meetings at the middle schools
- Two meetings at Alameda Science and Technology Institute (a high school)
- Three meetings at Island High School/Woodstock Child Development Center
- Four meetings at Encinal High School
- Five meetings at Alameda High School

The comments collected at the school site master planning meetings were combined with the physical and programmatic needs identified in the 2012 Facilities Assessment Report, as well as the 2014 Ed Specs, to create a comprehensive Facilities Master Plan for each site. Each Facilities Master Plan includes draft site drawings, a detailed list of proposed improvements, and a Master Plan Summary.

Meeting attendees sorted the identified improvements into three categories developed by the district and QKA staff: 1) Critical Facility Needs; 2) Educational Program Needs; and, 3) Future Facility Needs.

Category 1: Critical Facility Needs (CFN)

Improvements to meet code requirements, student safety, building infrastructure systems and preservation of buildings from the deleterious impacts of the environment.

Examples include:

- ADA – Code compliancy to the Americans with Disabilities Act
- Roofing repair or replacement
- Building weather protection, including windows, siding & exterior doors
- Mechanical, plumbing, electrical, utility systems repair or replacement
- Security/student safety upgrades
- Improvements for student safety such as pedestrian paths or unsafe vehicular traffic crossing
- Notification systems (phones and intercoms)
- New lock systems

Category 2: Educational Program Needs (EPN)

Improvements that impact the student learning environment and support the District's Educational Program/Education Specifications. EPN improvements will impact more than just classrooms.

Examples include:

- Spaces needed for enrollment capacity
- Information technology improvements
- Architectural upgrades, including finishes and cabinetry
- Outdoor learning environments and libraries
- PE and playground improvements including fields
- Energy efficiencies upgrades
- Parking and traffic – not identified in CFN
- Site improvements, such as drainage or paving

Category 3: Future Facility Needs (FFN)

Improvements not covered under Critical Facility Needs or Educational Program Needs, such as aesthetic considerations, optional upgrades or other non-critical but desired work to each school.

5. Community Outreach

District and QKA staff used a wide range of methods to inform and solicit responses from the community about the plan.

Meetings

In addition to 54 school site meetings held at individual school sites, QKA hosted three community-wide meetings in late April. To make it easier for community members to attend, the meetings were held at school sites across the island (Alameda High School, Encinal High School, and Lum Elementary School). At the first two meetings, the architects described the general state of AUSD's facilities, presented the results of the individual school site master planning meetings, and asked for feedback on the plans (which had been enlarged and posted around the room). At the final meeting, QKA incorporated the feedback from the first two meetings and also initiated a broad conversation on the general direction that the community would like the District to go in implementing the plan.

To encourage still more community feedback, the Board of Education will conduct a Facilities Master Planning workshop on May 27, 2014. The workshop specifically will focus on the general direction the community wants to take with the implementation of its Facilities Master Plan.

Facilities Master Plan website

District staff created a website within the district's website solely devoted to the FMP process. That website included:

- FAQs on Facilities Master Plans
- PowerPoints developed by the architects
- Notes from every Ed Specs meeting
- The Ed Specs
- The Demographic Analysis
- Video, transcripts, and comment cards from the community outreach meetings
- School site pages that contained links to each school's 2012 Facility Assessment Report, as well as the agendas, meeting notes, draft site plans, and improvement lists generated during the Facilities Master Planning process. Each school site page also contained an email link that community members could use to send in comments.

Communications

To educate the community about the Facilities Master Plan process, inform them of meeting dates, and solicit feedback, district staff sent out regular communications (including Community Bulletins and a monthly Superintendent's Letter) to district staff, parent/guardians, the media, and the broader community. Several local publications ran these communications in their Letters to the Editor section. In addition, district staff tweeted regularly about upcoming meetings and additions to the FMP website and "live tweeted" Board of Education meetings where the FMP was discussed.

of Education meetings where the FMP was discussed.

To communicate directly with district employees, staff wrote short articles in the monthly Employee Bulletins and a bi-weekly newsletter that goes to principals.

The District also took out newspaper advertisements for the community outreach meetings (these ran for three weeks).

Cost Estimating

An estimated construction cost in **today's dollars (June 2014)** has been provided for each proposed facility improvement by Counterpoint Construction Services, in coordination with QKA. **Escalation of these costs will occur over time. Projects that begin several years from this date will, almost certainly cost significantly more to build as a result of escalation.** These estimated costs were used to help develop the implementation plan and were based upon the following assumptions:

Estimates: All the improvements contained in the Facilities Master Plans are estimated.

Current costs: The cost of work specified in the 2012 Facilities Assessment has been re-calculated in **2014 dollars**, as well as adjusted to reflect improvements identified during the FMP process.

Conceptual descriptions: All costs are based on conceptual descriptions of facility improvements. Detailed plans and specifications have not been developed at this time.

Bids: The construction will be competitively bid as required by California Contracts Code for public schools. A high degree of quality control will be enforced.

Contingencies: Design and Change Order contingencies are factored in to the hard construction cost. It is expected that significant hazardous materials abatement will be required in most modernization projects. An abatement allowance of 1.5% of the project costs has been added to the overall construction cost.

Soft costs: Total costs include "soft costs," such as approvals, permits, inspections, testing, bidding, and architecture and engineering fees and expenses. They are estimated at 30% of the hard construction costs including contingencies.

Costs are based upon the assumption of a separate contractor for each campus and prevailing wages as of **2014.**

The project cost estimates do not include:

- Furniture and other moveable equipment (such as computers)
- Temporary or interim housing costs (portables) for impacted school sites
- Legal fees, bond counsel, financing consultants and internal district administration costs.

Public School Construction Costs

Public school construction is generally 25% to 30% more expensive than most commercial construction. That's primarily due to two factors. First, because they house children, school buildings are designated as "Essential Facilities" by law and require a greater level of structural safety and engineering. Second, because public school construction involves government contracting, workers need to be paid "prevailing wage" (the hourly wage and benefits paid to the majority of workers in a trade in that region, as established by state agencies). This tends to keep the hourly rate of workers higher than in the private sector.

School Capacity Calculations

The FMP report for each campus contains a calculation of the campus' student capacity. The capacity was determined using a standard formula and classroom loading standards that are consistent with District and California Department of Education standards. The ratios are not intended to correlate to the actual number of students in a classroom at any one time or the maximum capacity of a classroom. They are a guideline used to track the overall capacity of school campuses.

The FMP uses the current loading ratio of the California Department of Education (CDE) of twenty-five (25) students per classroom and defines a classroom as a space greater than 750 square feet.

Portable Classrooms

AUSD, like most school districts in California, possesses a significant number of prefabricated relocatable classrooms (portables). These are stand-alone classrooms that are manufactured and delivered to the school sites on trucks. They are typically installed on non-permanent foundations with metal ramps. They are an inexpensive and quick way to provide classroom space.

The portable classrooms currently in AUSD range in age from 10 to 45 years and are in a wide range of conditions. The life span of a portable is 25 years. Some are relatively new and in good shape; others are in a state of significant disrepair.

Due to the fact that portables are inexpensive and not designed to be permanent, it does not generally make sense to renovate existing portable classrooms. Therefore, the FMP does not include renovations of portable classrooms at any of the school sites. Instead, where portables are in significant disrepair, the FMP recommends their removal and replacement with permanent buildings. Where existing portables are new (or relatively new) and in good condition, however, the FMP reflects their continued use.

Executive Summary

The Facilities Master Plan includes a considerable amount of data and information about each of the District's school sites.

The purpose of the Executive Summary is to summarize detailed information and present an overview of the FMP. The intent is to provide a concise view of the facilities issues and opportunities that Alameda Unified School District faces. The Executive Summary also provides a cumulative view of all of the campuses to give a holistic picture of District facility needs.

Although not specifically a part of the Facilities Master Planning process, values for improvements to the seven non-educational District facilities also are included in this summary.

District Wide Trends

As the FMP was developed, QKA identified a number of consistent trends throughout the District. Many of these trends were first identified in the development of the Educational Specifications with the establishment of District-wide facilities standards. QKA also identified a number of common issues during the Facilities Assessment of each campus.

In addition, as we completed the school site meetings, attendees identified which types of improvements were most important. During subsequent community outreach meetings, the trends were further described and a set of similar solutions revealed themselves.

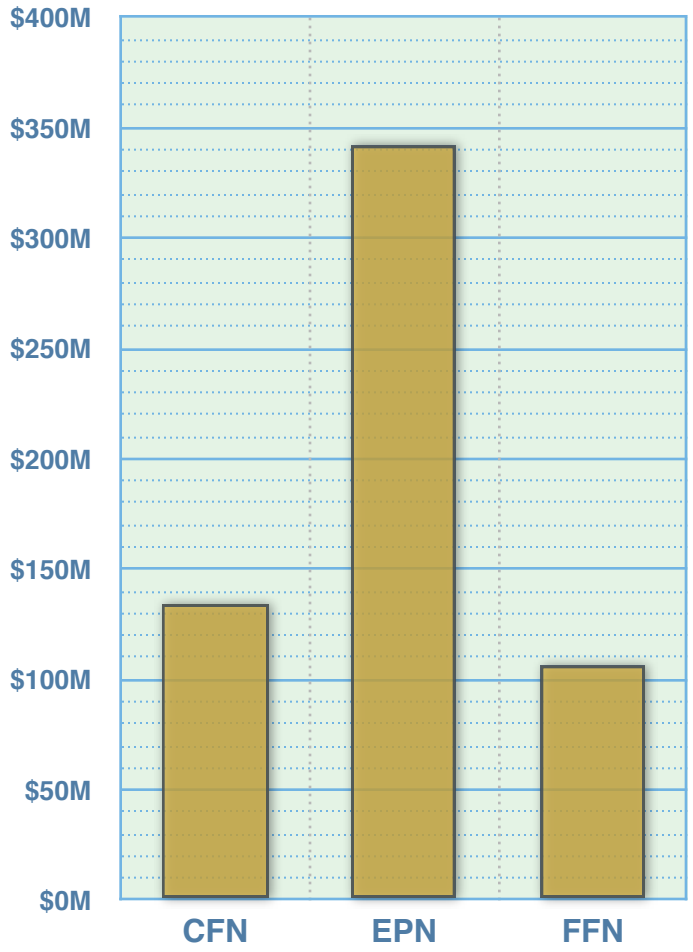
QKA aggregated five broad facilities need trends to capture these issues. They are represented in the table below along with a brief list of common improvements in each category. The FMP includes a Master Plan Summary for each campus, which includes a similar table describing the proposed improvements for each trend on that campus.

	DISTRICT COMMON TRENDS	COMMON PROPOSED RESPONSE
	Safety and Security	New or better fencing to create a secure perimeter, door hardware and visual control, access control through administration
	Accessibility	Upgraded wheelchair ramps, restroom upgrades, accessible parking improvements and changes to site features
	Technology	A/V systems in classrooms, wireless internet access, and A/V systems at multi-purpose rooms
	Science, Technology, Engineering, Art, Mathematics	21st Century adaptable and flexible classrooms and lab spaces, small group learning spaces and outdoor work areas
	Facilities Support Infrastructure	Additional private meeting spaces of various sizes, a clear and welcoming sense of entry and administrative reception area

Facilities Master Plan Summary - Costs by Category

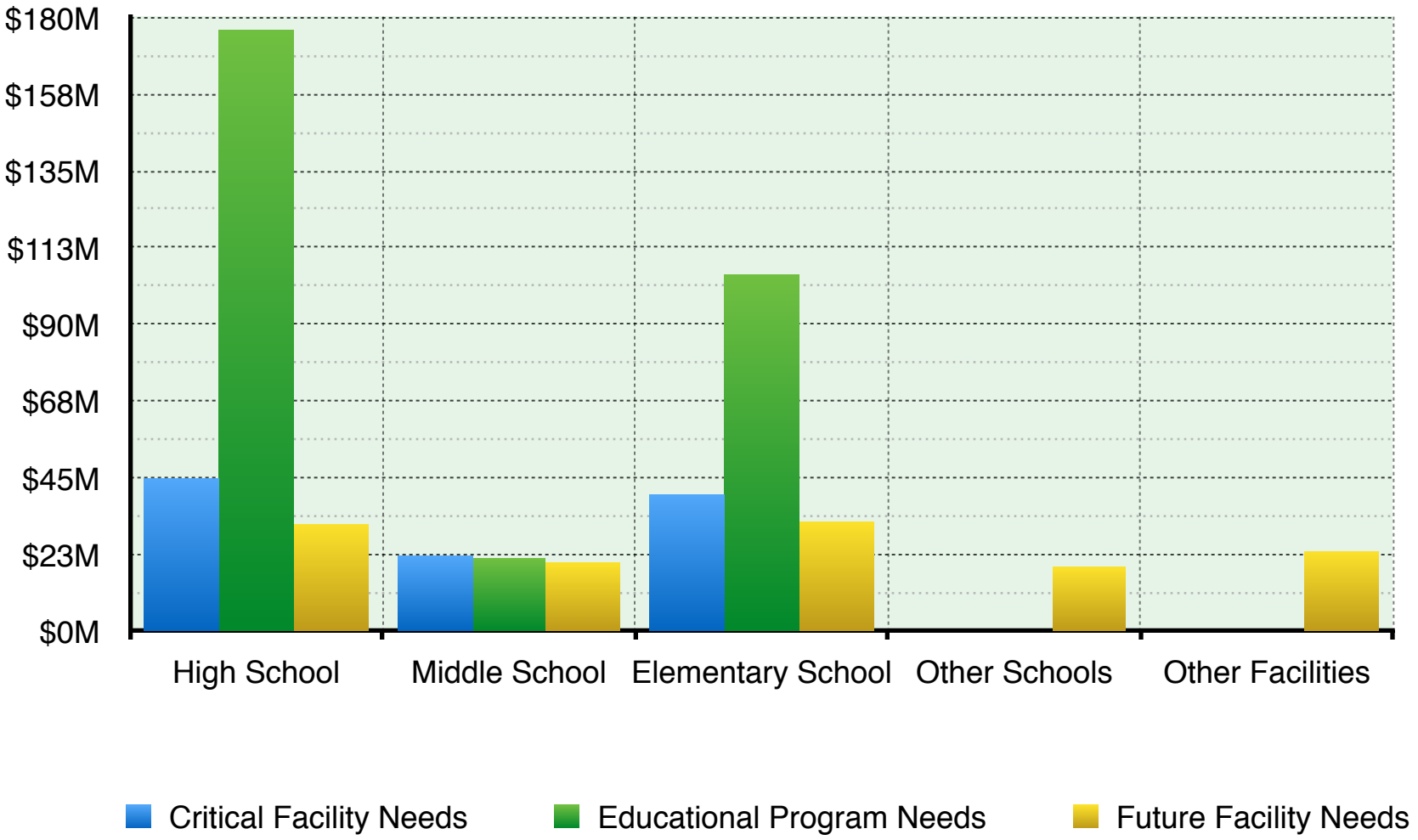
To better understand the wide range of needed facility improvements, QKA and district staff created categories for sorting the improvements, as described in the previous *Methodology* section.
Below is the total estimated cost of all proposed improvements in each of the three categories.

CATEGORY	COST
Critical Facility Needs (CFN)	$133,783,478
Educational Program Needs (EPN)	$341,897,164
Future Facility Needs (FFN)	$106,231,779
Hazardous Materials Abatement Allowance	$8,728,686
Total	**$590,641,107**



Facilities Master Plan Summary - Costs by School Type and Category

Proposed improvements shown by type of school and category. The graph indicates that the majority of costs of the proposed improvements are concentrated in high schools. It also shows that a significant amount of Educational Program Needs must be addressed.



Facilities Master Plan Summary - Costs by School

	CFN	EPN	FFN	TOTAL
Alameda HS	$33,643,231	$57,658,016	$20,993,479	$112,294,726
Encinal HS	$10,500,801	$107,739,740	$9,834,489	$128,075,030
Lincoln MS	$9,995,082	$3,198,260	$16,760,671	$29,954,013
Wood MS	$11,967,175	$18,195,502	$3,271,190	$33,433,867
Bay Farm ES	$3,135,623	$3,135,623	$92,950	$6,364,197
Earhart ES	$5,941,939	$6,839,388	$17,777,240	$30,558,567
Edison ES	$4,874,189	$16,502,447	$24,570	$21,401,206
Franklin ES	$1,698,207	$8,814,656	$7,326,134	$17,838,997
Haight ES	$5,789,014	$11,229,082	$439,707	$17,457,802
Lum ES	$6,157,033	$6,208,626	$1,160,183	$13,525,842
Maya Lin ES	$5,005,970	$12,153,596	$1,091,928	$18,251,494
Otis ES	$4,185,357	$9,577,829	$973,899	$14,737,085
Paden ES	$2,405,501	$12,584,020	$2,127,651	$17,117,172
Ruby Bridges ES	$888,265	$2,116,426	$1,302,977	$4,307,667
Academy of Alameda	$2,742,400	$20,807,534	$127,270	$23,677,203
ACLC/Nea	$12,907,451	$9,064,900	$2,563,782	$24,536,133
WCDC/Island High School	$11,301,959	$10,074,242	$1,602,055	$22,978,256
ASTI High School	$644,280	$10,531,820	$213,832	$11,389,932
Subtotal	**$131,418,713**	**$341,897,164**	**$106,231,779**	**$547,899,189**
Allowance for Hazardous Materials Abatement (1.5%)				**$8,728,686**

Continued…

Facilities Master Plan Summary - Costs by School

	CFN	EPN	FFN	TOTAL
The Warehouse	N/A	N/A	$1,435,070	$1,435,070
Maintenance & Supplies Yard	N/A	N/A	$11,922,807	$11,922,807
2472 Eagle Avenue	N/A	N/A	$273,000	$273,000
240 Singleton Avenue	N/A	N/A	$3,392,370	$3,392,370
250 Singleton Avenue	N/A	N/A	$5,388,034	$5,388,034
District Office (at AHS)	N/A	N/A	$1,125,000	$1,125,000
GRAND TOTALS	**$131,298,515**	**$356,061,160**	**$113,681,577**	**$590,641,108**

Renovation versus Replacement Costs

Many schools in Alameda are reaching the end of their useful life. In some cases, the compounding issues of poor soils and inadequate structural systems make bringing the facilities up to current codes expensive. When these spaces also require new infrastructure, such as heating, electrical and plumbing systems, in addition to renovations to meet curriculum needs, renovation can become cost prohibitive.

When the indicated improvements for a building exceed 75% of the value to demolish and replace the structure, QKA recommends consideration be given to building new structures. The smaller the gap between renovation and replacement, the stronger the case for replacement.

On a campus wide scale, the same 75% rule applies. If a master plan involves renovations of existing structures that exceeds 75% of the cost of building an entirely new school, it is advisable to consider a complete replacement school.

For each school site, the Facility Master Plan provides the cost to build a new campus if the cost to demolish and renovate the school exceeds 75% of the campus' replacement cost.

Consolidating High Schools

During the Facilities Master Planning process, QKA was asked about the possibility of consolidating the two comprehensive high schools into one new facility. Based on current enrollment and demographic projections, this would require a high school to accommodate 3,000 students now and approximately 3,165 in 2023-24.

Both comprehensive high schools have size constraints that prevent them from fully providing the types of facilities that are prescribed in the Education Specifications. Although demolition and multi-story new construction can provide the building spaces required, neither school has adequate site area for the desired athletic fields.

The Facilities Master Plan presents the cost to improve Alameda and Encinal High School facilities as required on their existing sites. The decision to implement these improvements, however, should be judged against the costs to build a single new high school on an adequately sized site. Based on California Department of Education standards, a high school with that enrollment requires over 65 acres. Exclusive of the purchase of land, a new 3,200 student high school could cost $180 to $200 million.

Miscellaneous Disclaimers

Replacement Costs

As the cost to modernize existing facilities approaches the cost to demolish and replace that facility, consideration should be given to replacement. A reasonable rule of thumb could be when modernization costs of critical and educational facilities exceed 75% of new construction costs. The replacement costs for schools that fall into this category are shown in Appendix B. Replacement costs are not included in the overall cost estimate numbers.

Temporary Housing Costs

In cases when significant portions of school campuses are proposed to be demolished and/or reconstructed, it may become necessary to provide temporary housing for students displaced by the construction. Since temporary housing solutions can vary wildly, a hypothetical portable building scenario was estimated with the following conditions and costs:

17 classrooms (approximately 320 students)
1 administration building
1 cafeteria building
3 portable toilet buildings
For a period of 18 months

$3.5 million, including hard and soft costs, no furniture.
$170/sq. ft. of temporary building space

Alameda High School Options

By an overwhelming majority, the preferred solution at Alameda High School was Option 2. Although costs for both options are provided in the FMP, only the higher Option 2 costs were used for the purpose of tabulating overall costs.

Additionally, costs associated with improvements to Thompson Field are included with Alameda High School, since it is directly associated with that school.

Conclusion

The FMP is the starting point for each facility improvement project, but it represents only the beginning of the design process. Each project that is selected will also entail a collaborative design process, in which the ideas and opinions of the school staff, teachers, parents/guardians, students, and community members will play an integral role.

As a long-term plan, the FMP is intended to be a living document. Educational programs, community needs, and physical conditions change over time. The FMP should be updated and re-visited as these conditions change, so that it can continue to provide effective guidance for decision making.

The Facilities Master Plan process was a lengthy and complex endeavor. The end product — the Facilities Master Plan – will help guide the District for many years to come, as it strives to create the 21st Century educational facilities the children of Alameda so richly deserve.