

# PROGRAM SCOPE



Central LA Area New HS #9 will open on September 8, 2009.

*LAUSD was the first school district in the state of California to adopt the sustainability standards of the Collaborative for High Performance Schools (CHPS).*

- High Performance Schools - CHPS
- Energy – over 15% better than Title 24
  - Materials – low emitting materials in specifications
  - Water Conservation – decrease use 30%
  - Day-Lighting – equal to 2% floor area
  - Acoustics – HVAC designs less than 45db

The scope of the New School Construction Program involves seven primary components that each require unique expertise and must be orchestrated diligently to achieve success, and maximize the contribution of state, local and federal funds.

The primary components are:

- 1) Determining Seat Need
- 2) Defining Projects
- 3) Acquiring Project Sites
- 4) CEQA/Environmental Assessment
- 5) Designing Projects
- 6) Construction & School Opening
- 7) Closeout & Certification

## Determining Seat Need

The seats and classrooms needed to achieve LAUSD educational and facilities goals are determined through the evaluation of the capacity of each District school to accommodate the projected future enrollment and the analysis of school-by-school enrollment trends. This determination of need is based on several assumptions tied to current Board policies and planning guidelines.

Factors that influence the calculation of seat need include:

- Board-approved policies
- Retention rates
- Enrollment projections
- Classroom utilization
- Current plans for new schools

Enrollment projections are based on a set of assumptions, including:

- All students able to attend a neighborhood school or a “school of choice”
- Baseline population of all LAUSD students
- Relationship of kindergarten to births based on non-mandatory status of kindergarten
- Grade-to-grade retention rates for recent past years used to develop future trends

Projections of seats and classroom need change as new enrollment data is obtained. In addition, changes in operation policy can affect the need for additional classrooms. The effect of a change in demographic variables or policy assumptions can be significant, as the following examples illustrate.

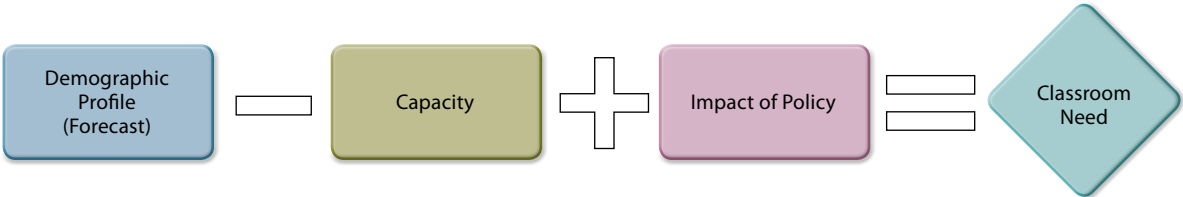
- A 10% increase in retention rate would result in an additional expected enrollment of approximately 35,000 students, increasing the classroom need by 400 to 1,400 depending on space availability in neighborhood schools
- Return to target of 1991 classroom loading norms increases need by 500 classrooms (12,500 seats)

**Classroom Need by School**

Identifying the need for classrooms at each school is the foundation for defining projects. The Demographics unit provides projections of classroom need by combining statistical data with expert evaluation of potential impacts. As the graphic below illustrates, census data and enrollment records provide the initial building blocks for a demographic forecast.



Classroom need is a combination of the above mentioned Demographic Profile, the capacity of any particular school, and the impact of policies which can have a significant influence on the resulting classroom need.



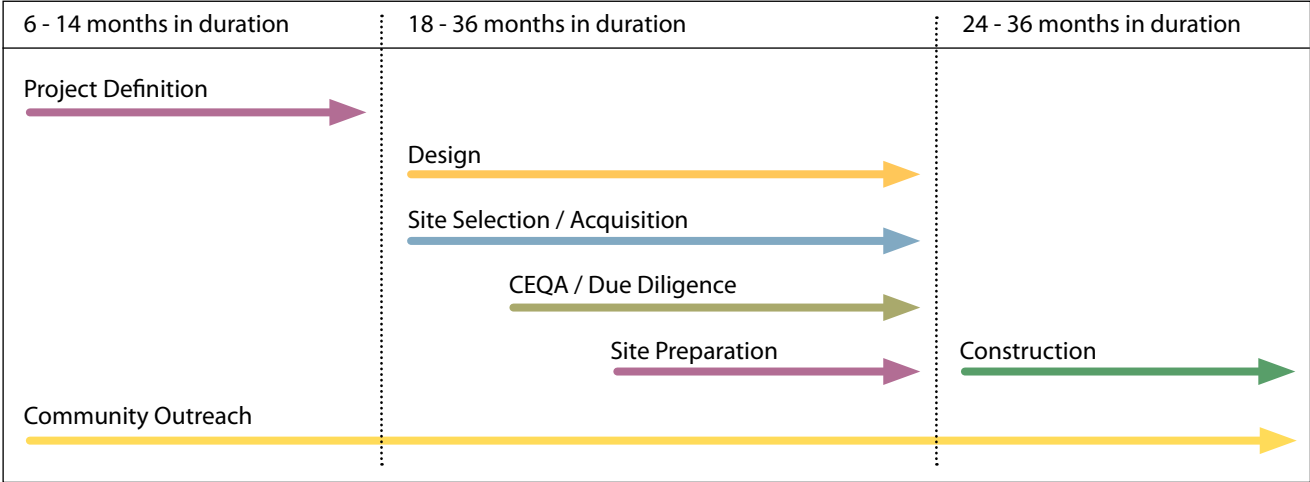
**Defining Projects**

Project development teams translate need into projects through a series of planning charrettes that include representatives of the Facilities Services Division, Local District Superintendents, School Board members and other interested parties. Professionals with expertise in instructional programs, real estate, construction, environmental issues and other critical aspects of a project are present. These planning charrettes are invaluable for enabling teams to better visualize the relationships between the proposed new school project, the schools to be relieved and the community that it will serve.

The effort culminates in the Board of Education’s approval of new project definitions. Through approval of the new project definitions, the Board authorizes the New Construction branch to commence with planning and design, site selection, and environmental assessment.

The chart below highlights the major components of building new schools. The typical duration of a new school project ranges from four to six years.

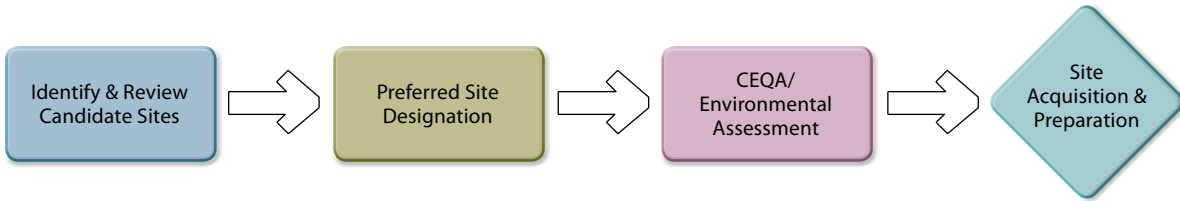
**Project Timeline**



*Durations shown are approximations only*

## Acquiring Project Sites

The next major activity in the timeline is site selection/acquisition, which is comprised of four major steps.



### Identify & Review Potential Sites

Efforts to locate specific school sites use these guidelines:

- Establish project site size: Use California Department of Education (CDE) site size recommendations as a benchmark for determining appropriate site size requirements
- Identify potential sites: Conduct preliminary evaluation for suitability of each potential site
- Recommend preferred site for Board of Education designation
- Conduct suitability review of potential sites
- Consider environmental issues: While full environmental testing is always conducted on properties, the team initially notes the presence of any known contamination or underground hazards in the preliminary target search area
- Consider community issues: The team looks for potential school sites adjacent to other community features and tries to identify sites that cause the least amount of community impact and maximize the public good. The development team seeks opportunities to make friendly acquisitions of property whenever possible
- Evaluate sites: The Real Estate team evaluates potential sites outside the target search area when sites within the area are limited

### Preferred Site Designation

Specific sites are identified using the previously referenced guidelines. Community meetings are held to review candidate site locations for the new school. The project development team considers community preferences and many variables to narrow the list of potential sites to a single location. The site is evaluated with regard to location, traffic, noise, cost and other factors to determine its suitability as a school location. This early stage evaluation is based on review of known factors obtained from public records and other published documents including student demographics. The recommended site is then proposed to the Board of Education for designation as the preferred site.

## California Environmental Quality Act/Environmental Assessment

After the Board designates the preferred site, the Real Estate team works in conjunction with the LAUSD Office of Environmental Health and Safety (OEHS) to conduct due diligence activities and environmental assessment. This consists of evaluating the site for any environmental hazards as well as impacts to the surrounding community resulting from the proposed school development and construction. Should contamination or other hazards be found, the team makes a determination as to whether it is feasible to remedy the problem to render the site safe for school use. An environmental analysis is prepared in compliance with California Environmental Quality Act (CEQA) requirements. The evaluation of the site's current condition and recommendations for mitigation that require some level of environmental cleanup are conducted in accordance with California Department of Toxic Substance Control (DTSC) requirements.

The CEQA evaluation process can take as long as 18 months on significantly complex and large sites. If during this period of evaluation, it is discovered that the land is unsuitable as a school site due to the cost of environmental action, or unsuitable for construction due to soil or other factors, the site is rejected as a preferred site and another site is chosen.

At the end of the CEQA/environmental assessment process, the Board is requested to adopt or certify the CEQA document. After Board action on the CEQA document, the Real Estate department can acquire the property.

## Site Acquisition & Preparation

Near the time that the Board adopts or certifies the CEQA document, the Real Estate department obtains an independent appraisal for each property and presents a written offer to the property owners. Once the seller and LAUSD agree on price and terms, the property is placed in escrow and upon completion of due diligence, the purchase is finalized. As a last resort, when a seller and LAUSD cannot reach agreement on price and terms, LAUSD may acquire property under eminent domain provisions.

The land acquisition process involves not only the purchase of the land, but also the relocation of occupants, and clearing the property for construction. LAUSD works with owners and occupants of homes and buildings to ensure that they are aware of the services and benefits available to them under California Code of Regulations, Title 25. LAUSD hosts workshops to promote home ownership that include participation by Fannie Mae and other nonprofit lending institutions as well as affordable housing providers.

As the owners and occupants are relocated, the following steps are taken to prepare the site for construction:

- Abatement and demolition of existing structures
- Utility removal and relocation
- Environmental site remediation

## Designing Projects

Concurrent with the start of due diligence and CEQA/environmental assessment, the design of new school projects starts with the selection of an architecture & engineering firm to design the school. In compliance with public contract code, LAUSD selects one firm from among several qualified firms to design the school.

### Design Principles

LAUSD uses a comprehensive set of design principles and education code requirements when designing every school. While schools may have a unique appearance, the following core design principles are the foundation of each project design.

**Be educationally supportive** - Small schools or small learning communities which:

- Create smaller schools within larger schools
- Provide spaces for students and teachers to interact
- Encourage collaboration between teachers
- Incorporate recreational facilities consistent with California Department of Education guidelines

**Be student and teacher friendly** - Classrooms with:

- Well insulated walls and quiet mechanical systems
- Individual environmental controls
- Tackable wall surfaces
- Modern, comfortable furniture
- Whiteboard/projection areas
- Low emitting materials

**Be technologically up-to-date** - Schools equipped with:

- Internet connectivity (access to high-speed electronic communications)
- Advances in security and fire alarm systems

**Be community friendly** - Schools as centers of the community allowing for:

- Public use of playfields and gymnasiums
- Public access to libraries, multi-purpose rooms and auditoriums
- Accommodation for persons with special needs

**Be energy efficient** - We have designed 100% of all new facilities using sustainable design concepts, which include:

- Ease of maintenance
- Use of day lighting and natural ventilation
- Cool roof and reflective pavement to reduce heat absorption
- High efficiency water fixtures
- Smart bathrooms
- Trees to provide shade and reduce heat
- Recycling space

### **Educational Program Design**

Every school is designed in collaboration with education professionals. Local district staff, superintendents, and principals are engaged during the design process to provide critical feedback. Additionally, District experts in educational programming are regularly consulted during the development of design standards to ensure schools are designed to the most current proven educational standards. At several points in the design process, the District holds community meetings to inform the community of the design progress and gather input. Additionally, local district offices form community-based design task force committees and hold regular meetings throughout the design process. These task force meetings are intended to enable community representatives to interact with the architect and give specific input that is important to surrounding neighborhoods and community plans. This input and feedback from the community is received, considered as an element in the design criteria, and where appropriate, incorporated into the design of the school. The end result is schools that adhere to proven educational design principles while encompassing the unique needs of the local student body and community.

### **Division of the State Architect (DSA) Approval and Partnering**

The California Field Act mandates state wide seismic standards for California public schools and establishes a stringent procedure for the review of school construction including:

- Plans must be prepared by a state licensed architect or structural engineer
- Designs must be checked and approved by the DSA
- Construction must be continuously inspected by a DSA approved inspector
- Architect or engineer of record must supervise the construction work
- Architects, engineers, inspectors and contractor must submit verified reports, under penalty of perjury, that they complied with the state-approved plans

LAUSD conducts quarterly partnering sessions with the Division of the State Architect (DSA) to address our mutual objective to achieve quality, timely, plan reviews and consistent code interpretation. In order to achieve these objectives we've committed to a "partnering agreement" which includes: DSA comprehensive team dedicated to LAUSD projects; improved communication structure; enhanced project review procedures including concurrent reviews; timely project intake procedure; standard review timeframes; monthly status reports; enhanced construction support and continued education. Partnering has been successful in addressing the objectives and challenges of both parties. The process improvements have resulted in better documents, shorter review durations and adequate review and inspection resources to address LAUSD's aggressive schedules.



Central LA Area New MS #3 will open on September 8, 2009.

## Small Learning Communities and Small Schools

The District has determined that reform is needed in secondary schools in order to raise student achievement. Many outcomes must be improved, including graduation rates, completion of university entrance requirements, and passage rates of the California High School Exit Exam. In an effort to meet this need, the District in 2004 established a goal of creating Small Learning Communities (SLCs) of 350 to 500 students within secondary school sites. Schools currently in design and all future schools will provide students and teachers with a more personalized learning environment. In addition, several new schools which had been designed as large traditional schools have been converted to the small learning community model. The District's SLC initiative focuses on creating small, personalized learning environments within a school facility; this is separate and distinct from the goal of building small schools that accommodate fewer students on each site.

### Facilities Planning & Design Guidelines to Create Smaller Learning Environments

The Small Learning Communities concept changes the way a school functions. In order to support the functional changes that enable SLCs to succeed, the form and design of schools also needed to change. Therefore, the Facilities Services Division prepared Planning and Design Guidelines for Small Learning Communities which established requirements and standards for secondary school building and design. The general design guidelines include:

- Horizontal and contiguous SLCs when more than one SLC is housed in a single building
- Vertical configuration when an individual building is dedicated to a single SLC
- Separate entrances for each SLC
- Satellite administration offices for each SLC
- Teacher collaboration rooms in each SLC
- Separate student and staff restrooms for each SLC

The Small Learning Community design features will help the District achieve its goal of raising student achievement by creating a more personalized, unified, and collaborative environment for students, staff, parents, and the community.

### Small Schools

In June 2008, the Board of Education adopted a new small schools policy – the *Small Schools II: A Bold Vision for the LAUSD* resolution. The policy defines a “small school” as having its own administration, staff, budget, contiguous space, and responsibility for all aspects of its educational program. Under the policy, the size of small schools shall generally be no more than 500 students for elementary schools and high schools and 400 students for middle schools. Small schools may be co-located on one site as a complex; most sites where small schools are co-located shall be limited to no more than 1,000 elementary or span school students, 1,600 middle school students, or 2,000 high school students. These size limits shall be considered with future school design and future modernization and renewal efforts.

Existing large schools - generally 1,000 students or more - will be transformed into complexes of small schools based on their unique needs. This transformation will roll out in phases and will be guided by the analyses called for in the Board policy. The first phase is expected to be implemented no later than 2010. For most existing high schools, the Small Learning Community upgrade and redesign effort will provide the facilities needed to begin to implement the small schools policy. However, the operation and management of complexes of small schools will require great study and support across the District before the goals of the small schools policy will be fully achieved.

### Adaptable Designs

The District cannot predict how a school might change the way it uses its space as it adds more students or revises the direction of its academic program. Therefore, facilities, utilities, spaces, and technologies must be adaptive and flexible.

Our designs continually look to provide this flexibility:

- Movable partitions to allow for expansion of classrooms
- Utilities and technologies in all classrooms to allow for multi-use teaching
- Location of major utilities to allow for relocation and/or demolition of interior partitions
- Minimal structural load-bearing interior walls to facilitate reconfiguration of classrooms and adjacencies

### Physical Education

All schools are designed to meet or exceed both State and District guidelines for physical education. Specific benchmarks include:

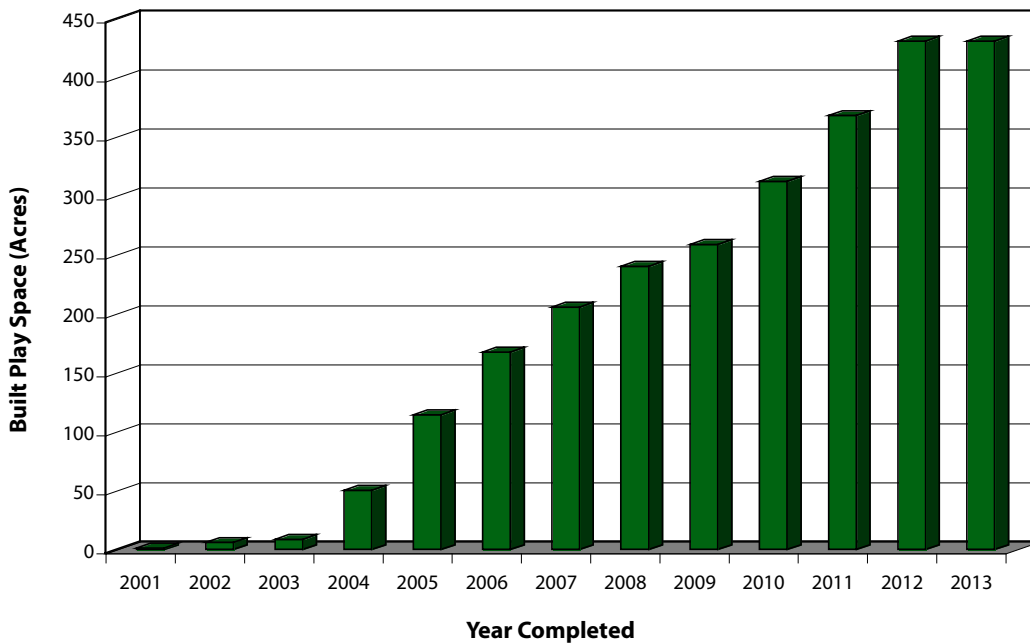
- Schools must meet and typically deliver more physical education teaching stations than required to fulfill State physical education program minimum standards
- Schools on dense urban sites are designed with below grade parking to maximize play acreage

The projects defined in this Strategic Execution Plan provide significant physical education facilities. In approximate terms, the facilities include:

- 242 acres of green fields, equivalent to 164 soccer fields
- 189 acres of hard surface play areas, equivalent to nearly 1,960 high school basketball courts
- 494,000 square feet of gymnasium space, equivalent to more than 117 high school basketball courts
- 12 competition-size swimming pools

These facilities represent a significant contribution to the overall need for recreational facilities in the Los Angeles area.

**New School Construction Program  
Projected Cumulative Acres of Play Space Built By Year\***



\*Includes all defined and funded projects. Includes green play space and hard surface play space.

## **Environment and Sustainability**

LAUSD is committed to providing better learning environments for its students. Green, high performance designs have a substantial impact on the environment and public health and contribute to a more effective learning environment through increased day lighting and improved acoustics.

LAUSD was the first school district in the state of California to adopt the sustainability standards of the Collaborative for High Performance Schools (CHPS). This point-based system defines a high performance school as energy, material and water efficient, as well as healthy, comfortable and easy to maintain and operate. In 2001, the Board of Education passed a resolution adopting CHPS as a guideline for building sustainable schools, and in 2003, the Board made CHPS official policy. Every LAUSD school that will undergo construction or major modernization must achieve – and ideally exceed the minimum CHPS school point standards.

Two showcase high performance schools opened in 2006. Maywood Academy, a 1,215-student, 45-classroom high school in the city of Maywood, and Charles H. Kim Elementary, an 800-student, 32-classroom elementary school in Koreatown are featured as CHPS Demonstration Schools on the CHPS Web site, [www.chps.net](http://www.chps.net). Both schools have received numerous awards for their sustainable designs.

As of 2008, CHPS criteria have been applied to the planning and design of 58 new school projects and 12 existing schools, many of these schools are under construction. A typical school is expected to achieve 30% more in energy savings than the California energy code requirement, and 30% more savings in water than the EPA water baseline.

State Proposition 1D set aside \$100 million for incentive grants to promote the use of high performance attributes in new construction and modernization projects for K-12 schools. LAUSD submitted 28 projects in 2007 and 10 projects in 2008 for this additional grant funding. To date, LAUSD has received approximately \$7.8 million in these additional grants and expects to receive several million more as a direct result of designing sustainability features.

LAUSD's CHPS program continues to implement green features in new schools designs. Several new features include waterless urinals, energy management systems, renewable energy systems and school gardens.

New schools are being designed with infrastructure to receive roof photovoltaic (solar) systems in the future. During the early design stages of a school, the focus is on maximizing the amount of open roof that can accommodate solar systems and ensuring that roofs can support their weight. The New School Construction Program has set the goal to have solar energy supply 30% of each school's energy consumption. Some schools will use a combination of renewable systems including wind, solar and geothermal and may be able to generate up to 70% of the energy required to operate. This goal supports the Facilities Division's overall goal of generating 50 mega-watts of renewable energy by 2012.

### **Design Advisory Council**

The Design Advisory Council is a group of prominent architects within the community who review schematic and final designs for schools. The Council has sponsored best practices seminars for the architectural firms working on the New School Construction Program and has been an important resource in establishing a consistent quality standard throughout the Program.

## **Construction & School Opening**

Construction of a project begins after site acquisition and design are complete, the site has been cleared for construction including demolition of existing structures, and any required environmental remediation has been completed.

Steps in the construction process are:

- 1) Bid and award of the construction contracts
- 2) School construction
- 3) Procurement and installation of furniture and equipment
- 4) Transfer of the new school to the local district



Panoramic view of progress on South Region ES #1

Following is a brief outline of the major activities required to construct a school:

- Procurement method is chosen which may include a design/bid/build or a lease-lease back best value contract
- The bid and award process is coordinated and managed
- A Notice to Proceed (NTP) is issued to the contractor or developer
- Construction management forms a collaborative team with the contractor, architect, and inspector, to successfully construct the school
- Construction managers provide contractor oversight for progress payments and clarifications/changes to the design
- Inspection and testing are performed to ensure quality and adherence to the contract documents
- Monitoring and testing is conducted to ensure an environmentally safe site
- Coordination with local agencies and utility companies is completed to ensure adherence to requirements related to storm water, off-site improvements, utilities, etc.
- Construction is completed in accordance with state building requirements

### **School Opening**

The process of opening the school is focused on ensuring that the school is ready to operate. Systems and facilities are tested to ensure they are fully operational.

During the final stages of construction, furniture and equipment (F&E) such as desks, bookcases, kitchen equipment and outdoor amenities are delivered in time to support the targeted school opening date. Delivery and installation of F&E is managed by the School Opening Transition Unit (SOTU). SOTU works closely with school administrators and provides leadership in the selection, space and interior planning, acquisition, installation and delivery of those items described as furniture and equipment in the California Department of Education's Accounting Guidelines.

Once the school is furnished, teachers, administrators and school operations staff occupy the school and prepare to receive and instruct students.

### **Closeout & Certification**

The closeout phase begins at the completion of construction and occupancy of the new school facility. Closeout consists of two primary components: the administrative closeout of all construction related records, and certification of construction by the DSA. Administrative closeout includes:

- Training of maintenance and operation staff on systems operation and the transfer of operation manuals and warranty information
- Preparation of final evaluations including contractor, architect and project lessons learned
- Reconciliation of all project expenditures and reallocation of any remaining funds
- Completion and archiving of all project records including preparation of "As-Built" documents

DSA Certification:

After the completion of construction, and submittal of required documents, the DSA will issue a letter of certification stating that construction has been completed in accordance with the approved design documents.