

Excellence in Public Buildings: A Guide for Stakeholders

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Introduction

Seizing on the opportunities presented by the public building boom in California, and executive orders mandating quality and environmentally sustainable building practices, the [Department of General Services \(DGS\)](#) has launched the Excellence in Public Buildings (EIPB) program. This program encompasses all new design, construction, and major renovation or modernization work on buildings under the purview of DGS, and communicates the State's expectations to its clients and private sector partners in the building delivery process.

EIPB calls upon the best of state and private sector talent to enhance the architecture, design, and functionality of California's Schools and public facilities.

At the beginning of the millennium, California embarked on an office building construction campaign aimed at increasing the total number of square feet of public building floor space, thus consolidating many state workers and offices in fewer state-owned buildings for enhanced efficiency of public service.

Enrollment in California's schools continues to increase at a rate four times the national average. As a result, the public has approved many billions of dollars in public school construction bonds.

The sheer size of California's public construction programs creates a duty to assure the taxpayer's money is spent on efficient, high performance, cost-effective buildings. It also creates an opportunity to benefit not only public buildings, but the entire building industry. EIPB will raise the bar on energy efficiency, use of recycled materials, accessibility and safety, quality, and community sensitivity of the built environment. These standards will, it is hoped, affect norms and building practices throughout California and across the country.



The Capitol Area East End Complex project nearing completion in 2003.
Image courtesy of Department of General Services, Real Estate Services Division.

EIPB: A Guide for Stakeholders

Background

The [Real Estate Services Division \(RESD\)](#) and the [Division of the State Architect \(DSA\)](#) are involved in the planning, development, design, construction, operations, maintenance, leasing, and acquisition of public facilities including office space, school facilities, and infrastructure projects. The annual construction value of projects for these facilities is in the billions of dollars.

In April 2000, the State Architect presented a Design Excellence concept to the [Department of General Services \(DGS\)](#), which was approved on the condition that it would include work performed by RESD. A collaborative effort between DSA, RESD, and a retained consultant resulted in the development of “Excellence in Public Buildings” (EIPB), which was accepted as an Agency Initiative by the Agency Secretary, and the Director and Chief Deputy Director of DGS. In 2004 EIPB became a DGS program.

The Excellence in Public Buildings program incorporates numerous other initiatives, including the [Blueprint for Sustainable State Facilities](#), Energy Efficiency and Sustainable Design, [Energy Star Program](#), [LEED rating system](#), [Environmentally Preferable Purchasing Task Force](#), Smart Building concepts, [Facility Performance Evaluation](#), [Universal Design](#), and recycling programs.

On April 11, 2001 the Policy Executive Committee agreed that an Implementation Plan would be developed for the EIPB initiative. The EIPB Implementation Team was chartered at the department level on August 6, 2001. The concepts and implementation of various aspects of EIPB were achieved by a number of charter teams whose work continues to this day.

Policy

The aim of EIPB program is to produce high-performing public buildings and a positive architectural legacy that reflects the State’s commitment to excellence.

The program will do this through:

1. Program Planning

Improve the process the state uses to plan the design and construction of high quality, sustainable schools and public buildings.

2. Excellence Goals

Establish objectives for State Buildings that promote excellence and sustainability.

3. Evaluate Performance of Buildings

Implement a Quality Assurance program for State Buildings and cycle findings back into the design process for continuous improvement.

The California Department of Education (CDE) Building, part of the Capitol Area East End Complex project.
Image courtesy of Department of General Services, Real Estate Services Division.



Program Planning

The successful start of any building project occurs long before the award of contracts. Design and construction of a school or public building begins with careful study of owner/occupant needs and expectations. Determining how to define success is key to being able to measure performance of the finished building.

So, well before a project is ready to award, the goal of DGS will be to adhere to the following practices as the project advances along the journey from concept to concrete:

1.1 Focus on Customer Needs and Satisfaction:

Public buildings must support and enhance the productivity and effectiveness of state employees and provide an efficient, comfortable atmosphere for citizens using public services. Public schools must provide students with an environment conducive to learning. These objectives can be accomplished through the participation of customers—people who will occupy and use the buildings being built or remodeled—in the design process and then setting standards of performance.

Criteria for success, in terms of building occupants, will be articulated and used in measuring success after completion of the project.

1.2 Collaborate to Achieve Extraordinary Results:

EIPB requires the expertise of employees of State Government and the private sector. Many state agencies outside the DGS are involved in bringing a public project from the drawing board to the construction site. EIPB calls for collaboration among agencies. A good example is the [Sustainable Building Task Force](#), composed of representatives of over 32 agencies.

Collaboration with the people charged with maintaining and operating the building and its systems is vital for customer satisfaction, efficient building operation and maintenance, and optimal life cycle costs.



Members of the community join project designers for a team based approach to planning the project.
Image courtesy of CalPERS.

The state should also keep open lines of communication with the private sector so the message of Excellence gets to the people who actually do the work. The DGS continues to support collaborations on a project-by-project basis and more generally, as with the Super-Partnering Forum. In this way the industry will move with the State toward excellence and social and environmental responsiveness.

Finally, collaboration between members of the community and project designers, in a team-based approach to project planning, is encouraged.

Program Planning

1.3 Utilize Best Practices from the Public and Private Sectors

The DGS will incorporate the use of best practices in capital projects. These practices may be based on our own experiences as well as that of the private sector or other public entities.

Among such practices two deserve mention:

1.3.1 Partnering:

Essentially a collaborative, team-based approach. Partnering continues throughout the project, monitoring progress and resolving problems, and involves the State, the architectural and engineering professionals, construction teams and contractors, and the owner/user of the new facility. Partnering is based on project goals being clearly defined through collaborative discussions at the outset of the design phase.

1.3.2 Total Building Commissioning:

A goal of EIPB is that **commissioning** of all essential building systems become the standard operating procedure on new State public buildings and fully integrated into the way DGS procures, operates, and maintains facilities. The commissioning process begins in the pre-design phase and continues through occupancy and operation and is critical for achieving success.

1.4 Emphasize Creativity and Innovation in the Selection Process

The state's selection process shall encourage innovation; its selection criteria will assure that architects are chosen, not only based on past experience, but also on creativity, talent, and a commitment to the goals of the Excellence program.

1.5 Quality Assurance in the Design Phase

The Quality Assurance and Design Documents program will help promote quality and continuous improvement in the design process. The implementation of the Quality Assurance and Design Documents concepts should reduce design errors and omissions, resulting in a clearer, more complete set of design documents. A high quality set of plans and specifications should provide for tighter bid range and reduced construction problems, costs, and delays.

The DGS will recommend and make changes to the language of Request for Qualifications (RFQ) and Standard Agreement as appropriate so that quality assurance is made a key part of the selection criteria.

1.6 Design Guidelines

These efforts will be closely integrated into the State's project development processes. The Program Planning will consider key EIPB initiatives at the earliest possible stage of a project's development. It will identify measurable performance criteria after acceptance of the justification or cost effectiveness of the various EIPB options on a life cycle cost basis or via legislative mandate. Design Guidelines will be established on a client or project type programmatic basis to ensure consistent quality and satisfaction of project performance criteria.

Footprint of the new "Town Center" and office space for the Butterfield campus. Landscape design provides shade using native plant species.

Image courtesy of Lionakis Beaumont Design Group.

The State office complex on Butterfield Way in Sacramento will provide amenities, such as a community "Town Center" and easy access to Light Rail, the Sacramento area commuter train.

Image courtesy of Franchise Tax Board.



Excellence Goals

The following eight goals of the EIPB program shall be, to the extent possible, applied to all public buildings in California. The collective, mutually reinforcing impact of these goals will produce buildings of enduring value and benefit to taxpayers, local residents, employees, students, and customers.

GOAL #1 Architectural Excellence

Recognizing the importance of design in the legacy that public buildings become, every effort will be made to attract outstanding architects who are committed to design excellence, best practices in energy and environmental sustainability, and the other goals of EIPB.

A revised, streamlined selection process will strive to match design professionals with the right projects, and expand opportunities for emerging talent and small businesses and enlarge the pool of architects available for state building projects.

GOAL #2 Sustainability

[Executive Order D-16-00](#) states that California will “site, design, deconstruct, construct, renovate and maintain state buildings that are models of energy, water and materials efficiency; while providing healthy, productive and comfortable indoor environments...” This was reaffirmed in December of 2004 when Governor Schwarzenegger issued [Executive Order S-20-04](#), setting State policy on energy efficiency.

EIPB mandates sustainability practices, with the associated benefits of:

- Lower operations and maintenance costs;
- Longer life of facilities and building systems;
- Healthier and more comfortable indoor environments;
- Higher worker productivity;
- Lower use of natural resources (energy, water, raw materials) while reducing pollution, water runoff, and waste disposal.

To these ends, the DGS will continue to participate in the interagency [Sustainable Building Task Force](#) and shall promote and take part in the updating of the publication [Building Better Buildings: An Update on State Sustainable Building Initiatives](#). The overall aim is to [increase awareness among state agencies and design professionals of available best practices](#), and share the State’s building experiences.

[Executive Order S-20-04](#) requires [LEED](#) certification of Silver or higher on all new and renovated state-owned facilities paid for with state funds.

Specifications for all new State construction projects now contain language regarding minimum recycled content in building materials and the recycling of construction and demolition waste.

The DGS promotes the use of solar and other renewable energy in new construction projects, and continues the evaluation of existing facilities to include a photovoltaic component. As of August 2004, the DGS is participating in an effort to obtain renewable energy sources at multiple state sites by third-party solar contractors at no capital cost to the state. The host state agencies will in turn purchase the power produced by the equipment at a rate lower than current utility prices.



An acre of photovoltaic panels on the Franchise Tax Board building, the largest array on any state building.
Image courtesy of Daniel Burgoyne.

Excellence Goals



Fountain in Pocket Park of the CDE building.
Image courtesy of Department of General Services, Real Estate Services Division.

GOAL #3 Integrating Art into Public Buildings and Spaces

The California Legislature has indicated that the state has a responsibility for expanding public experience with art. Art also adds to a building's identity and enhances the human experience of the facility.

Every effort should be made to incorporate art into the design at the beginning of projects. The DGS, in partnership with the [California Arts Council](#), implements the Art in Public Buildings program to integrate artistic values with the architectural and functional requirements of public facilities. This effort expands the public's experience with art, and makes available and accessible quality art that reflects California's rich history and diverse cultures.

GOAL #4 Cost-effectiveness

In planning and designing public buildings, bear in mind that operating and maintenance costs over a building's lifetime far exceed the cost of initial design and construction. More efficient workplaces enhance worker productivity, further contributing to return on taxpayer investment. Design professionals and the DGS shall use results-based performance standards, life cycle costing, and an integrated design approach to deliver value exceeding the initial financial investment.

In addition, construction excellence will result in buildings that make optimal use of the taxpayer's dollars. All DGS construction projects shall follow recommended procedures regarding commissioning, field inspection, information distribution, and, when appropriate, value engineering. Every effort shall be made to resolve construction issues as early as possible, preferably in the design phase. Construction phase process improvement shall be an ongoing effort.

GOAL #5 Universal Design

Public buildings shall incorporate [Universal Design](#) to enhance accessibility for all. This approach to architecture and project development assures accessibility by all people equally, even as their needs change with age, ability, or condition during an entire lifetime.

California can demonstrate its commitment to accessibility by designing and constructing buildings that exceed requirements in law and serve as an example of the spirit and intent of accessibility regulations.

Excellence Goals

GOAL #6 Safety and Security

Public Buildings shall serve occupants and the public by being safe and secure from natural or man-made disasters.

Building designs must address security issues, the protection of key infrastructures and systems essential to the state, and other measures to ensure public and employee safety.

State and private sector project developers will consult the DGS document “Security Design Guidelines for Public Buildings” during the pre-design phase of a project.

GOAL #7 Make a Positive Contribution to the Local Community

Public buildings will be sited and designed to enhance the local built environment, in accordance with [Executive Order D-46-01](#).

Planning should:

- involve community participation
- strengthen and revitalize California’s cities and communities
- enhance the livability of the community
- support economic renewal
- encourage multiple uses of public spaces
- promote use of public transportation

State buildings should be located with considerations for local priorities and to support statewide objectives. Siting will support sound growth patterns, provide convenient access for customers and employees, reduce traffic congestion, and promote improved air quality.

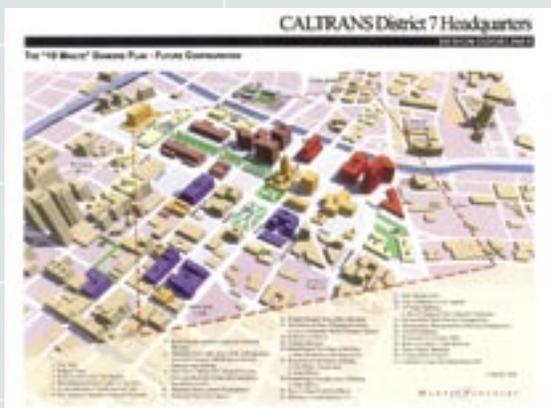
GOAL #8 Preservation of Buildings of Historic Value

[Preservation of historic architecture](#) allows the public to understand the influence of the past. After careful rehabilitation, historic buildings embody healthy, productive, comfortable, and safe indoor environments. Preservation of historic buildings retains the art of architecture that has contributed to the community for decades.

The state will create opportunities to utilize structures of historic, cultural, and architectural significance to contribute to the revitalization of cities, provide sustainable buildings, and contribute to smart growth.

The “Ten Minute Diamond” Master Plan, where government will co-locate and transform downtown Los Angeles into a more livable community.

Image courtesy of the Department of Transportation.



The Caltrans District 7 Headquarters—a world class building for a world-renowned city.
Image courtesy of Morphosis Architects.



Building Performance Evaluation

After construction is completed and occupancy is taken, a new State building enters into the costliest phase of its existence—its operational life. Just as Excellence begins well before ground-breaking, so it does not end with ribbon cutting. The Excellence in Public Buildings program completes the circle of the public building project cycle by bringing excellence to the maintenance and operation of state facilities, as well as recording results and maintaining a database to bring lessons learned to future projects.

Successfully maintaining a building, and adding to organizational knowledge and memory, involves many of the quality assurance and best practices that began during the pre-design phase, such as commissioning and collaboration.

3.1 Facility Performance Evaluation

Building design and performance includes structural, aesthetic, functional, and human elements. The structural elements are addressed through codes and standards, as well as ongoing monitoring of equipment performance and energy operating costs. Aesthetic matters will be evaluated through public comment and professional peer review.

Functionality and “human” concerns are addressed through the systematic use of [Facility Performance Evaluation \(FPE\)](#), which is based on the earlier concept of Post Occupancy Evaluation (POE). FPE assesses the first-hand experiences of the building’s occupants and operators as they work in the facility. Lessons learned through evaluation are applied not only to make improvements to that building, but also to future building designs.

To the extent possible, The DGS will strive to conduct FPE studies on all new construction and remodel projects.

3.2 Lessons Learned Database

All FPE findings, as well as records of issues and their resolution throughout the history of the project, will be entered into a Lessons Learned database. This information will aid State project developers as well as private sector partners in designing better buildings and avoiding the mistakes of the past. It is our best hope of getting things right the second or third time, not the sixth or seventh.

Lemoore High School—The architecture of historic California is reflected in the Spanish style arches of this beautiful adobe school..

Image courtesy of Teter A+E, LLP.



3.3 Operations and Maintenance Excellence

Buildings designed in conjunction with those who will operate and maintain them.

Buildings commissioned with formal FPE studies.

Conduct maintenance through an ongoing effort to implement best practices, including adherence to recommended cleaning and maintenance products and methods. Follow standardized operations and maintenance procedures.

Perform periodic evaluations to ensure buildings are operating as designed.

3.4 Reward Excellence

The DGS will consider an Excellence in Public Buildings Awards Program to recognize the exceptional projects that raise the bar, as well as recognizing the people whose efforts make

Call to Action

To achieve the level of excellence that the people of California deserve and our fragile environment requires, we must work together—state government, private sector professionals, and the public. The Excellence in Public Buildings program is a call to action.

Staff

- Engage customers, with a commitment to understand their needs.
- Continue to bring to the table your creativity, insight, and inspiration.
- Partner and collaborate, internally and externally.
- Continue to be open to change.
- Commit to continuous improvement—learn from your own experience, and that of others.

Customers

- Engage us earlier in your capital planning, before you get “locked into” a budget and building size.
- Participate in training, ranging from capital planning to security to sustainable building practices.
- Think critically about your future service operational needs.
- Care about the quality of the space—seek healthy, productive workplaces and inviting public places.
- Strive to be a good neighbor and employer in the local community.
- Give us feedback, including using new tools to evaluate building performance.

The Design & Construction Community

- Serve in an advisory capacity on DGS committees and peer review panels.
- Apply your creative talent and expertise to our projects, large and small.
- Advocate for and support the Excellence in Public Buildings goals within the industry.
- Judge us by our actions.
- Give us feedback, and participate in [Facility Performance Evaluations](#).

The Public

- Demand excellence.
- Expect public buildings to encompass the best combination of quality design, enduring value, functionality, and environmental sensitivity.
- Participate in public forums as building plans are being developed.
- Give us feedback as customers using our facilities.

Alice Fong Yu Elementary School—Students at this colorful school are protected from the weather by a cascading decorative overhang.

Image courtesy of Levy Design Partners with Nancy Servers, Architect and Herman and Coliver Architects.



Conclusion

The Excellence in Public Buildings program is an opportunity, not only to do the right thing in building sustainable, cost effective buildings with taxpayer money, but also, due to the high visibility of California's public building projects, to send a message to industry and the public of the State's commitment to excellence.

The Excellence in Public Buildings program recognizes that the state's current building campaign represents a unique opportunity. We can build schools and public buildings that are exceptional in architectural design, efficient and socially and environmentally responsive, and healthy and productive places to work and learn. We can create public spaces that are a positive legacy for future generations. We can have a positive impact on the entire building industry.

This can be achieved through collaboration with our state agency clients, local school districts, our private sector partners, and the public. Together, we can achieve extraordinary results—public buildings that inspire us today and leave a lasting legacy for future generations.

Let's Talk

To learn more about Excellence in Public Buildings, contact the following:

Regarding state buildings:

Department of General Services
Real Estate Services Division
(916) 376-1900 or www.dgs.ca.gov/resd

Regarding public schools:

Department of General Services
Division of the State Architect
(916) 445-8100 or www.dgs.ca.gov/dsa



Caltrans District 7 Headquarters—A landmark, enduring civic space, housing an historic partnership between State and Local government to increase coordination of critical state and local transportation services.

Image courtesy of James Sinsheimer.