



DIVISION OF THE STATE ARCHITECT

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# Special Programs & Interest

CASH Workshop, June 2008  
DSA Regional Manager

## Electronic Plan Review

## Electronic Plan Review

- Over 160 projects have already been reviewed electronically in 2008.
- DSA plan reviewers are utilizing Bluebeam software digital tablets and large screen monitors to perform electronic plan review.
- For e-plan review projects; Web-conferencing is being offered as an alternative to in-person backchecks.

## Electronic Plan Review Continued

- Electronic plan check is currently used mostly for smaller less complex projects but has been successfully used for some larger projects.
- DSA Bulletin 06-03 (see DSA web site under “Publications”) explains electronic plan check procedures.



## Electronic Office Pilot



### Paperless Office Pilot

- The goal is to create a system so that all documents required for project certification can be submitted and managed electronically.
- The pilot was launched in the San Diego Regional Office.
- Developed document process flow charts for paper documents, paper documents submitted and scanned to create electronic documents and for electronic documents submitted.

## Paperless Office Pilot Continued

- The Regional Offices are working together to align their document processing and management procedures.
- Integrated Management System (IMS) is in place to electronically store and manage documents.
- Enhanced and upgraded IT systems such as bandwidth and portals being evaluated.
- Staffing needs being evaluated.

## Field Pilot

## Field Supervision Pilot

- Pilot underway in Sacramento Regional Office only.
- Provides increased and standardized field oversight by DSA on all projects during construction.
- Adds new staff for DSA's field oversight program:
  - "Construction supervisors" (CS) - visit small projects and conduct non-structural observations for larger projects.
  - Administrative staff - assist with document processing.
  - Program management – development & documentation of procedures; coordination with Academy and HQ Policy.

## Field Supervision Pilot - Goals

- Improve DSA field oversight:
  - Timely visits to all projects.
  - Efficient processing of field documents.
- Improve DSA Policies:
  - Field staff feedback > DSA code/policy.
- Improve DSA Academy training classes:
  - Multi-discipline feedback > Academy curriculum.
- Improve certification rate for school projects

## Field Supervision Pilot - Schedule

- Interim site visit guidelines implemented Spring 2008.
  - Site visit scheduling.
  - Site visit activities and Field Trip Note preparation.
- Document processing improvements implemented Spring through Fall 2008.
- Evaluation in Fall 2008 – verify staffing levels.
  - DSA will solicit feedback from clients and inspectors.
- Statewide implementation date not yet determined.

## Field Supervision Pilot

### Interim Site Visit Guidelines

- One visit to every small project (CS staff)
- Larger projects receive visits at 3 - 5 week intervals
- Field Engineers visits during structural phases of construction (foundation and framing)
- CS staff performs visits during non-structural phases of construction (site development, utilities, architectural finishes, final)

## Field Supervision Pilot

### Site Visit Activities

- Observe project inspector (PI) administrative and inspection work (review records, spot-check construction)
- Verify DSA approval of construction documents (structural, access and fire safety) issued to field
- Verify testing and special inspection requirements and status
- Observe construction and/or review plans with PI for complicated or unusual requirements (SS, AC, FLS)
- Document findings on Field Trip Note and issue to PI

## Seismic Mitigation

## Proposition 1D

Assembly Bill 127 placed Prop. 1D on the November 2006 ballot.

A provision of Prop. 1D amended Education Code §17075.10 to include funds for seismic mitigation work on a 50% state share basis from the bond funds created by Prop. 1D.

## Obtaining Seismic Mitigation Funding

- Of Prop. 1D's \$1.9 billion, up to \$199.5 million is available for seismic mitigation projects.
- DSA's review and concurrence with a structural engineer's report will be required to successfully obtain funding.

## Minimum Requirements

- To be eligible for funding, a structural engineer will need to prepare a report for review by DSA.
- The four issues the report must address include:
  - A description of the structural system.
  - Location.
  - Occupancy.
  - Lateral Force-Resisting Deficiencies.

## Description of System

- The report will need to include the structural framing plan.
- The type of structural system must fit within one of four categories:
  - Concrete Moment Frame;
  - Precast/Tilt-Up Concrete Shear Wall with Flexible Roof;
  - Precast Concrete Frame and Roofs with Concrete Shear Walls; and
  - Unreinforced Masonry Bearing Wall Buildings.

## Location

- The report must include evidence that the building is located in an area where the short period spectral acceleration is 1.7 or more based on the 2002 United States Geological Survey National Seismic Hazard Maps.
- The latitude and longitude must be provided for the building.
- The street address will be acceptable if the building is on the same plot of land.

## Occupancy

- The report must include evidence that the building is designed for occupancy by students and staff or is currently occupied by students and staff.

## Lateral Force-Resisting Deficiencies

- The report must provide evidence that demonstrates the lateral force-resisting system of the building does not meet collapse prevention performance objectives.
- The report should describe, in detail, the specific deficiencies and reasoning for concluding that the building has a high potential for catastrophic collapse.

## Structural Engineer Required

- The report **MUST** be prepared by a licensed California Structural Engineer.
- The report must have the engineer's stamp or seal and signature.



## High Performance Schools



### High Performance Incentive Program

- Prop. 1D set aside \$100 million as an incentive to promote the use of high performance attributes in new construction and modernization projects for K-12 schools, such as:
  - the use of designs and materials that promote energy and water efficiency;
  - maximizing the use of natural lighting; and
  - improving indoor air quality.
- Of the \$100 million, \$92.5 million was left after the May SAB meeting.

# High Performance Rating Criteria

- Projects are graded using a High Performance Rating Criteria modeled after the 2006 Collaborative for High Performance Schools (CHPS) criteria.
- The five categories used for the High Performance Rating Criteria are:
  - Site;
  - Water;
  - Energy
  - Materials; and
  - Indoor Environmental Quality.

# DSA High Performance Scorecard

DGS HPS Scorecard and Guidelines					DSA Application Number								
Date of Scorecard:		2006 CRITERIA SUMMARY; FOR DETAILED EXPLANATION SEE "CHPS BEST PRACTICES MANUAL VOLUME 3 - CRITERIA" - 2006 EDITION			Max. Possible HPS Points	Points Achieved	Points Character	DSA VERIFICATION	DSA - DOCUMENTS NEEDED FOR REVIEW, VIA SEPARATE SUBMITTAL. IDENTIFY EACH CATEGORY & ASSOCIATED PREREQUISITE OR CREDIT--SUCH AS--SSP1.1 OR EEC4.1. THEN, PROVIDE SPECIFIC INFORMATION OR SUPPORTING DOCUMENTATION DESCRIBED IN THIS COLUMN	PLANS	SPECS	DISTRICT LETTER OR SUPPORTING DOCUMENTS	SITE VERIFY
CHPS SECTION		SUSTAINABLE SITES (2 prerequisites; 14 possible points)											
<b>1. Site Selection (6)</b>													
SS1.0	Code Compliance	Rec.	Comply with all requirements of Title 1 and CA Education Code and PUCS Resource Code sections specified.	X	X			CHPS to Verify					
SS1.1	Environmentally Sensitive Land		No development on sites that are prime agricultural land, in flood zone, habitat for endangered species, near a wetland or considered parkland.	1				State Parcel # and how far above (elevation) the 100 Year Flood plan or submit PDF file of FEMA website map.					
SS1.2	Greenfields		Do not develop on greenfields.	1				State prior use of land (e.g. farmland).					
SS1.3	Central Location		Create centrally-located sites within which 50% of students are located within minimum distances of the school.	1				State percentage of Elem, Middle and HS students within prescribed distance.					
SS1.4	Joint-Use of Facilities		Design at least one space for "joint-use" and provide specified security measures.	1				List the groups and contact information of Joint-use facilities. Identify facilities and/or spaces.	✓			✓	
SS1.5	Joint-Use of Parks		Share park or recreation space.	1				List the groups and contact information of Joint-use parks.	✓			✓	
SS1.6	Reduce Footprint		Reduce the building footprint.	1				Provide floor area ratio (FAR) calculation.	✓			✓	
<b>2. Transportation (8)</b>													
SS2.1	PUBLIC Transportation		Locate near public transportation.	1				Identify transit system(s) and provide website link(s).					
SS2.2	Bicycles		Provide bike racks & bike lanes for a percentage of the school population.	1				Site CSI Section. List number and type of racks, and provide bike lanes and sidewalks elevation.	✓	✓			✓
SS2.3	Minimize Parking		Minimize parking lot & create preferred parking for carpools.	1				List number of classrooms by school level. List number of carpool spaces and total number of parking spaces on the plans.	✓	✓			✓
<b>3. Stormwater Management (2)</b>													
SS3.0	Construction Site Runoff Control	Rec.	Control erosion & sedimentation to reduce negative impacts on water & air quality. Must incorporate minimum US EPA's National Pollutant Discharge Elimination System (NPDES) Part 2.	X	X			Site CSI Section or Provide date and field number of SVPFP with State Water Resources Control Board or regional affiliate.					
SS3.1	Limit Stormwater Runoff		Minimize runoff.	1				Site CSI Section if applicable. Calculate existing and post-development imperviousness in %. State methods to reduce runoff.	✓	✓		✓	
SS3.2	Treat Stormwater Runoff		Treat runoff.	1				Site CSI Section. Identify Best Management Practices (BMP) systems to mitigate stormwater runoff.	✓	✓		✓	✓

## High Performance Incentive Program

- DSA has reviewed and approved 37 projects.
  - Average 33 HPI points.
  - Average 7 HPI points from Energy Performance.
  - Average 29% Energy Savings above Title 24, Part 6.

## Deferred Approvals

## General Information

- A deferred approval represents a portion of the construction that cannot be fully detailed on the approved drawings because of variations in product design and manufacture.
- Approval of plans for such a portion may be deferred until the material suppliers are selected.

## General Information (continued)

- Deferred approvals must be submitted to allow DSA and the A/E of Record time to review and approve the submittal prior to fabrication and installation.
- Fabrication and installation of these items **shall not** begin until approval is granted.
- DSA Stop Work Authority is applicable to construction occurring without DSA approved plans including deferred portions of the plans.

## Eligible Items for Deferred Approval

- Steel joists/joist girders
- Wood trusses
- Elevator guide rails and support bracket anchorage
- Window wall systems or storefronts with spans greater than 10 feet
- Exterior wall systems
- Skylights
- Bleachers
- Automatic fire sprinkler systems
- Fire pumps and water tanks
- Access floors
- Stage rigging
- Others as accepted by DSA (project-specific)

## PC Deadline Extension

## PC Deadline Extension

- DSA Bulletin BU 07-02 Revised.
- 2001 CBC PC's extended an additional 6 months (until December 31, 2008).
- Extension does not apply to:
  - Site Drawings.
  - Full Campus PC's.
  - Accessible Features of Toilet Facilities.
  - Ramps.