



# Facility Condition Assessment Report

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Coast Community College District



February 28, 2003

## Introduction



To help document the need for funding the necessary replacement and upgrading of facilities within California's community college districts and to assist districts in preparing for bond issues, the Foundation for California Community Colleges (FCCC) negotiated a discounted-pricing agreement for facilities condition assessments with 3D/International. In summer 2001, the FCCC issued a formal Request For Information (RFI) in a public newspaper and subsequently reviewed, considered, and evaluated the respondents' experience and quality of work, particularly work with higher education clients. Coast Community College District (CCCD) elected to participate in the joint agreement and contracted with 3D/I to assess and document the facility repair, rehabilitation, modernization requirements relative to the CCCD.

Over a period of about two months, a staff of six 3D/International planning and construction professionals working with the Chancellor's Office performed an Existing Facility Assessment. The following report presents 3D/International's findings.

The Report is organized into the following 4 sections:

- Introduction
- Assessment of Existing Facilities
- Orange Coast College Reports
- Golden West College Reports
- Coastline Community College Reports

The Assessment of Existing Facilities section reports on the current physical condition of one hundred eleven buildings, totaling approximately 1,363,541 gross square feet.

The results of the assessment will provide CCCD with the technical information needed to make informed decisions regarding the disposition of existing facility maintenance funds and the need and cost of a capital improvement program.



## Existing Facility Assessment Findings

The generally accepted range of Facility Condition Index (FCI) for establishing a buildings condition is shown below. This standard has been adopted by the Building Owners and Managers Association, the Council on Education Facilities, and the American University Planners Association, and a number of other national facilities groups.

Condition	FCI
Good	0 to 5%
Fair	6 to 10%
Poor	10% and above

The results of our assessment are summarized in the FCI tables on pages 7 and 8. The estimated initial cost to repair these one hundred eleven facilities totals \$81,209,107.

The overall FCI rating of 19.45% for the one hundred eleven buildings assessed means that, in general, the facilities are in poor condition despite being generally well maintained.

Thirty-five buildings have an FCI less than 10%, the range for good or fair condition.

Six buildings have FCI ratings in excess of 50%. When the FCI is greater than 70% the building should be considered for replacement, as opposed to investing the substantial costs to repair a 30 to 40 year old building with systems well beyond their useful lives.

A more detailed discussion on the methodology and findings for each of the District buildings is provided in the Assessment of Existing Facilities section of this report.

## Assessment of Existing Facilities



In early 2002, Coast Community College District authorized 3D/International to perform a district-wide, comprehensive facility condition survey assessment. The costs associated with correcting deficiencies can be identified as follows:

**Deferred Maintenance** – maintenance work that has been deferred on a planned or unplanned basis due to lack of funds in the annual budget cycle – excluding normal maintenance that has already been scheduled, planned or funded within the current budget cycle.

**Capital Renewal** – future renewal requirements for building systems that reach the end of their expected useful life.

The comprehensive facilities assessment performed for CCCD is a detailed visual, non-destructive, inspection of each building. 3D/I's software, "COMET" – Condition Management Estimation Technology – is used as the database for recording all deficiencies. The survey assessment is a comprehensive room-by-room inventory of defined key elements and characteristics. The result of the inspection is a populated database that catalogs every deficiency costing over a certain value.

In parallel with the FCCC-3D/I agreement for discounted facility condition assessment services, an information technology project referred to as the Facility Utilization, Space Inventory Options Net or "FUSION" Project is underway. This project will design and deliver a centralized database and software in which the facility condition assessment data will reside and be used and managed by the districts to better manage their real asset portfolio.

### Approach

The assessment teams are comprised of design professionals, typically an architect and an engineer. For each building, the teams collected much of the facility's historical information prior to visiting the facility. This research included a review of existing drawings, meetings with the campus maintenance staff, and a review of previous renovations. The assessment teams then conducted a site visit to verify data already gathered as well as to record additional information found during the inspection. Based on visual observations and discussions with facility occupants and maintenance staff, the assessors determined what deficiencies existed and the general conditions of key building systems. A written description of the facility, including an overview of the facility's construction, building systems and general condition, was then developed.

### Background

Since its founding in 1947, the Coast Community College District has enjoyed a reputation as one of the leading community college districts in the United States. Coast Community College District plays an important role in the community by responding to the needs of a changing and increasingly diverse population.

The California Community Colleges Chancellor’s Office encouraged districts within the CCC System to take advantage of the discounted assessment service to generate an unbiased appraisal of the school’s physical conditions and to obtain recommendations for building system replacement based on priorities and expected useful life.

### Facilities

One of the findings of the assessment process is the determination of the Facility Condition Index, or “FCI.” The FCI is a ratio of the estimated cost to repair the identified deficiencies divided by the estimated replacement value of the facility. It describes the relative state of physical condition of a building (or its components, or a group of buildings) against a cost model of the original building as if it were at the beginning of its useful life, fully “renewed” to today’s standards.

### Summary of Findings

The costs presented below are a summary of the findings of the assessment for the current deficiencies. The costs do include soft costs associated with a rehabilitation project. These costs can change based on the packaging of repair and renovation projects.

Campus	Estimated Repair Cost	Gross Square Feet	FCI%	Replacement Cost
Coast CCD	\$81,209,107	1,363,541	19.45%	\$417,479,888
Hard Cost	\$60,378,484			\$310,393,792
Soft Cost	\$20,830,623			\$107,086,096

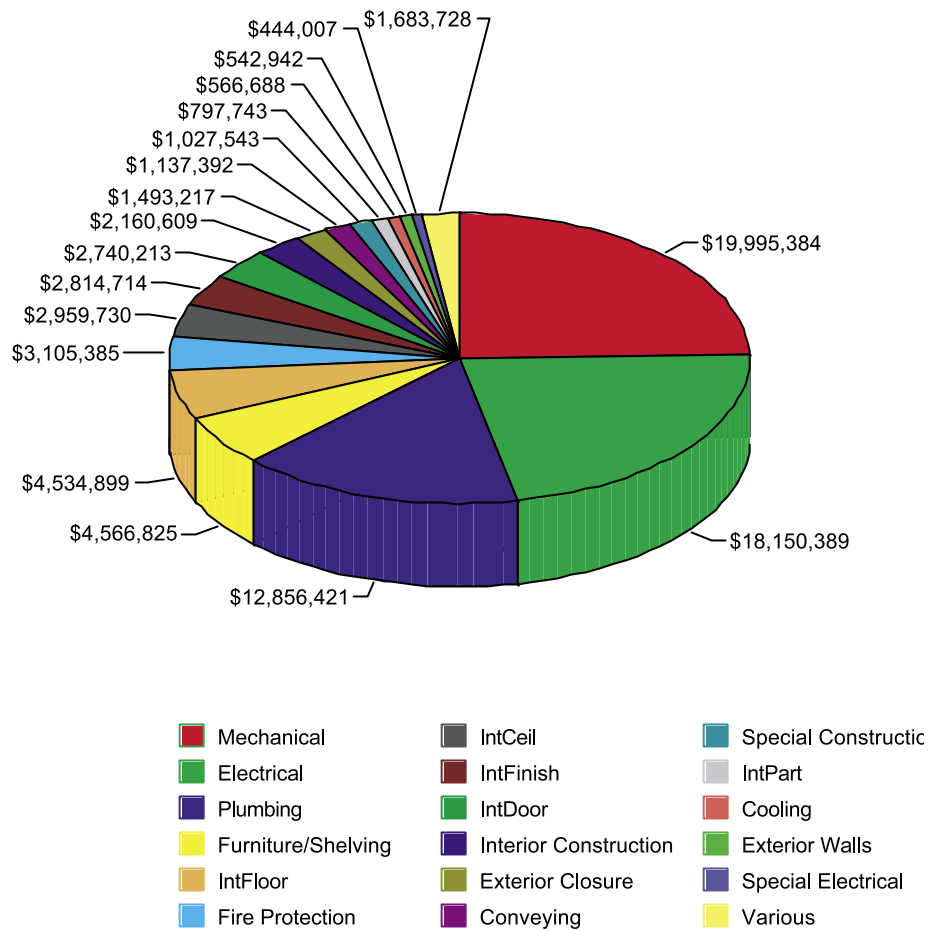
Based on current industry standards, the campus FCI indicates the facilities are in poor condition.

Condition	FCI
Good	0 to 5%
Fair	6 to 10%
Poor	10% and above

## Building System Classifications

The following chart gives a breakdown of the recorded deficiencies by their respective building systems for the entire campus.

Estimate by Building System - Coast CCD



In general, the majority of the costs identified in the assessment are for mechanical and electrical systems. Within mechanical systems, most costs are for adding or replacing chillers, boilers, and associated components such as air handlers and duct work. The majority of the electrical system costs are for replacing lighting fixtures and providing additional capacity to the main service and branch circuits.

### Facility FCI by Type Structure

The following is a list of the campus facilities grouped by building number displaying the Current Repair Cost, Replacement Cost and FCI.

Facility	Gross SQ FT	Yr Built	Repair Cost	Replacement Cost	FCI
<b>Golden West College</b>	<b>600,270</b>		<b>37,290,703</b>	<b>198,704,631</b>	<b>18.77%</b>
01 Math Science	44,144	1966	4,615,900	13,569,407	34.02%
02 Forum One	11,398	1966	530,981	3,503,627	15.16%
03 Bus Soc Sci	15,687	1966	686,466	4,822,021	14.24%
04 Admissions/Records/Counsel	39,503	1966	670,841	12,433,332	5.40%
04A Administration	18,738	1981	13,811	5,897,673	0.23%
05 Communication	8,103	1966	368,462	2,376,947	15.50%
06 Music	14,494	1966	1,191,850	4,455,305	26.75%
07 Library M/M Center	58,991	1966	3,026,172	18,133,220	16.69%
08 Fine Arts Gallery	9,456	1966	289,348	2,906,676	9.95%
08A Fine Arts Bldg. (New)	31,016	1976	1,447,720	9,533,996	15.18%
10 Men's Phys Ed	16,180	1966	1,109,494	5,235,024	21.19%
11 Women's Phys Ed	8,720	1966	702,032	2,821,348	24.88%
12 Community Center	5,975	1967	224,062	1,752,716	12.78%
13 Corporation Yard	12,328	1969	330,256	1,723,336	19.16%
14 Trade-Indust. (Auto/Diesel)	31,720	1967	1,214,244	8,799,962	13.80%
15 Health Science	18,590	1969	1,807,726	5,453,220	33.15%
16 Cosmetology	12,243	1969	1,395,166	3,591,381	38.85%
17 Tele-Comm+Forum II	16,175	1971	544,820	4,972,027	10.96%
18 PE-Rec	44,769	1971	2,898,888	15,406,477	18.82%
19 Technology	25,773	1971	1,216,848	7,922,352	15.36%
20 Community Theater	27,419	1971	2,373,674	7,973,815	29.77%
21 Humanities	39,944	1973	3,320,454	12,278,370	27.04%
23 Trade-Industry 2	23,182	1978	1,351,966	7,016,021	19.27%
24 Child Care Center	5,800	1979	45,606	938,584	4.86%
25 Health Center	4,418	1979	218,568	714,942	30.57%
26 Criminal Justice-Trn-	11,583	1981	243,617	3,397,776	7.17%
26A Crim. Justice Trg. Annex	1,920	1991	819	310,704	0.26%
27 Rehabilitation Center	1,920	1986	40,709	310,704	13.10%
28 Security	1,320	1986	29,375	213,609	13.75%
91 College Store 9A	7,158	1966	649,556	2,166,365	29.98%
92 College Center 9B	15,225	1966	1,921,163	4,669,728	41.14%
Load Center A-Old M/S	1,104	1966	12,564	1,785,436	0.70%
Load Center B-Forum 1	1,104	1966	2,768	1,785,436	0.16%
Load Center C-Admission	1,104	1966	585,116	1,785,436	32.77%
Load Center D - Library	1,114	1966	138,243	1,801,608	7.67%
Load Center E-Std. (Coll.) Ct.	1,104	1966	733,068	1,785,436	41.06%
Load Center G-Cosmetology	1,104	1969	3,302	626,005	0.53%
Load Center H-F.A./Music	1,656	1966	14,858	2,678,154	0.55%
Load Center J-Rec. Ed.	1,104	1966	68,944	626,005	11.01%
Load Center K-Rec. Ed.	1,104	1971	340,847	1,785,436	19.09%
Load Center L-Technology	1,104	1971	285,879	1,785,436	16.01%
Load Center P-New M/S	1,104	1974	515,402	1,785,436	28.87%
Load Center R-KOCE	1,104	1986	1,530	1,785,436	0.09%
Load Center S-F.A. (New)	360	1976	39,551	977,265	4.05%
Load Center T-Health Scn.	1,104	1969	59,571	85,436	3.34%
Load Center V-Admin.	1,104	1976	8,466	626,005	1.35%



It is accepted practice within the field of professional property management to consider replacement rather than repair of an asset when the FCI for that facility is in the range of 60 – 70% or higher. For facilities with an FCI in or near this range, the master planning process should carefully weigh issues such as:

- Student population (current versus planned) of the school in question
- The condition of the existing foundations and super-structures.
- The need for additional space, i.e., new construction.
- The appropriateness of the location of current assets.



Provided in this report are cost estimates to renovate the facilities and eliminate the identified deficiencies. Please note that these estimates reflect incorporating current building standards, codes, and livability issues into the renovation. The cost estimates do not reflect upgrades to:

- the architectural program—e.g., additional square footage for another educational mission;
- finishes—e.g., terrazzo tile in lieu of concrete; and/or
- systems—replacement of a 200 Amp electrical service with a 300 Amp service, which may in fact be more applicable for today's educational mission/program but would require further engineering and study to determine the appropriate service for today's learning environment.

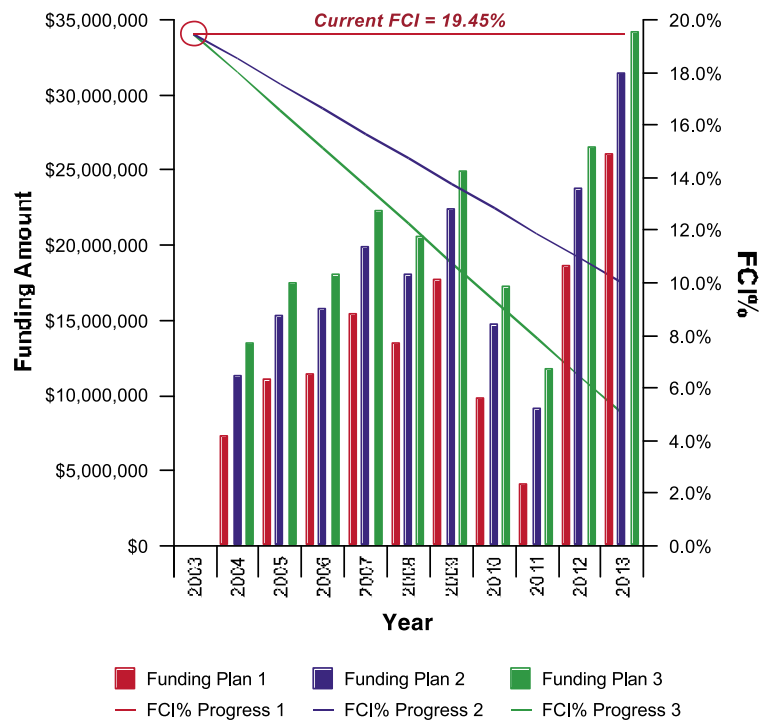
# Capital Renewal

## Funding Requirements – 10 Year Renewal Projection

The following chart illustrates the 10-year total funding requirements for the Coast Community College District for three (3) funding scenarios. It shows the combined funding needed for correcting the assessed deficiencies and the predicted capital renewal requirements. Using this chart, we can query:

- “How much funding is required to maintain the current FCI?”
- “What level of funding is required to achieve an FCI of 10%?”
- “What level of funding is required to achieve an FCI of 5%?”

**Future Facility Funding vs FCI for Coast CCD**



Funding Plan	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
<b>Red</b>	\$7.1 M	\$9.2 M	\$10.0 M	\$7.3 M	\$1.9 M	\$6.8 M	\$6.6 M	\$1.2 M	\$2.0 M	\$9.9 M	\$62.0 M
<b>Blue</b>	\$9.8 M	\$12.0 M	\$12.9 M	\$10.2 M	\$4.9 M	\$9.9 M	\$9.8 M	\$4.5 M	\$5.3 M	\$13.3 M	\$92.3 M
<b>Green</b>	\$10.6 M	\$12.8 M	\$13.7 M	\$11.1 M	\$5.8 M	\$10.8 M	\$10.7 M	\$5.5 M	\$6.4 M	\$14.4 M	\$101.7 M

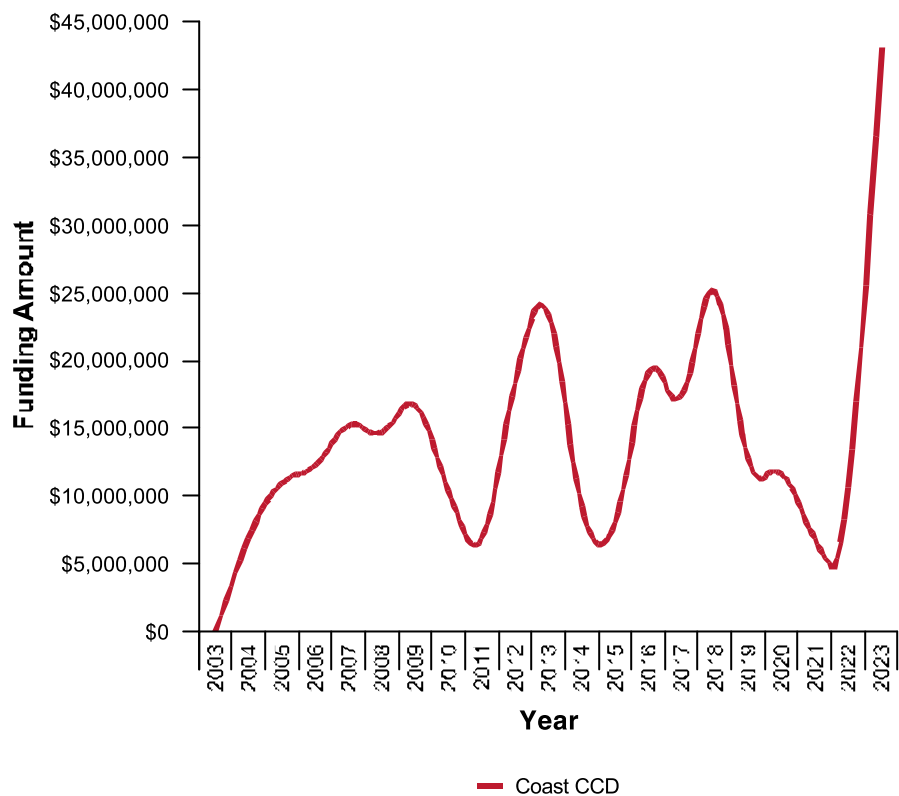
### Three scenarios are shown:

- **Current FCI: Keep the current FCI Stable (Red)**  
The red line assumes no spending in the current year (2003) for current deficiencies. Capital renewal costs, as shown, over the next 10 years would be required to maintain the current FCI. The total to keep the FCI stable is approximately \$62 million.
- **Required funding: Reduce the FCI to 10% (Blue)**  
The green line assumes no spending in the current year (2003) for all current deficiencies. It assumes a consistent level of funds for the next 10 years to buy-down the current deficiencies and additional funding for capital renewal items to achieve an FCI of 10%. (Minimal standard as published by APPA.) The total to reduce the FCI to 10% is approximately \$92.3 million.
- **Required funding: Reduce the FCI to 5% (Green)**  
The blue line assumes no spending in the current year (2003) for all current deficiencies. It assumes a consistent level of funds for the next 10 years to buy-down the current deficiencies and additional funding for capital renewal items to achieve an FCI of 5%. The total to reduce the FCI to 5% is approximately \$101.7 million.

## 20-Year Capital Renewal Forecast

The cost models for each building give us a method to predict future needs for capital renewal. Each model allows us to assess the remaining life of each of the main systems in the building and to enter the expected time of replacement of such systems. Although each model is only a rough approximation for one building, over a larger sample size use of these cost models produces a reliable estimate of the yearly cost to replace building systems. This chart illustrates a 20-year projection of capital renewal funding requirements, excluding current deficiencies for the entire district.

**Facility Renewal Forecast for Coast CCD**



## Conclusions



The overall FCI of the facilities in the Coast Community College District is 19.45%, typical of what we find for facilities of similar age and function across the nation. While this is a “poor” FCI (as defined by the APPA) the facilities are generally well maintained. The majority of the deferred maintenance requirements are of the type that can be renewed without demolition of the facility. (e.g., mechanical and electrical systems, wall and floor finishes, and exterior doors and windows.) Not all facilities should be renovated; however, renovation should remain an option as the planners consider educational master plans, new buildings, high growth areas, population, etc.