LONG RANGE FACILITY PLANNING REPORT

March 16, 2004

Prepared by: Joint Long Range Facilities Planning Committee

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NEW FACILITIES REQUIRED TO ACHIEVE THE VISION OF THE IMPERIAL VALLEY COMMUNITY/IMPERIAL COMMUNITY COLLEGE DISTRICT

The specific new facilities and facilities upgrades to achieve the vision are as follows:

A. SCIENCE & TECHNOLOGY BUILDING TO ACHIEVE VISION, MEET CURRENT DEMAND FOR SCIENCE AND MATH COURSES AND ACCOMMODATE FUTURE GROWTH AS FORECAST WILL REQUIRE:

1. The existing math/science building was built to conform to 1950's science and technology curriculum and methods. Curriculum and methods have changed dramatically over the past 40 years. The current facility does not provide a safe, efficient, productive or modern educational facility for IVC science and math students. A complete remodel or new facility is required for students to receive a truly quality math/science education at IVC.
2. The existing math/science building with four labs does not accommodate the current demand or the forecasted demand for math/science classes.

   An analysis of unduplicated waiting list demand for math/science classes indicates a need to expand the class offerings by 35 session and 35 labs. This translates into an additional four life science laboratories and corresponding classroom space.
3. The forecasted enrollment growth for IVC over the next ten years is 39%. A corresponding increase in math/science students will result in a need for three classes and three labs.
4. The combination of obsolete facility, verifiable unmet student demand for math/science classes, and future growth results in the need for a math/science facility with 11 to 12 labs and 11 to 12 classrooms.
5. State and local standards for the facility indicate that the math/science facility should be approximately 72,000 square feet. The approximate cost will be nearly $20 million ($278 per sq. ft). This building will enable the students to receive a quality math/science educational experience, meet current demand for math/science classes and meet demand for the next 10 years.

B. DISTANCE LEARNING FACILITY TO ACHIEVE THE VISION AND IMPROVE ACCESS TO IVC EDUCATIONAL PROGRAMS.

1. Build a state-of-the-art Distance Learning Center that provides faculty and curriculum development for online, interactive TV and hybrid courses to reach students whose access are hindered by factors such as distance, disability, scheduling, preference of learning style, etc.
2. The goal of the Distance Learning Center is to reach a market segment of our community that is currently underserved. The facility will be designed to accommodate an additional 15% to our student base. Based on 15% of our student base and growth over the next 10 years the facility should be designed to accommodate approximately 1,800 students.
3. The facility will have TV/video production rooms, classrooms and open access computer labs. Cost of four classrooms will be approximately $600,000 at $150/sq ft.

C. TO ACHIEVE THE VISIONING GOAL OF EXPANDING CAREER/TECHNICAL INSTRUCTIONAL PROGRAMS PRIMARILY IN THE INDUSTRIAL TECHNOLOGY AREAS OF THE TRADES SUCH AS ELECTRICAL, PLUMBING, HVAC, CARPENTRY, MASONRY AND CONSTRUCTION PROJECT MANAGEMENT.

1. The goal of this program would be to serve 480 students in the six areas listed above. This would be 24 sessions per semester.
2. One traditional classroom of 1,000 square feet would be required for each program area listed above.
3. Using modular instructional pedagogy that will be supported by an end product construction capstone course on site would require four inside labs and one covered exterior masonry lab. Each lab would need to be 30,000 square feet.
4. The required facility would be approximately 150,000 square feet at a cost of $150.00 per square foot. Total cost would be $22.5 million for a state of the art building providing a quality educational experience for the students of IVC.

D. TO ACHIEVE THE VISIONING GOAL OF DEVELOPING, IMPLEMENTING AND MANAGING SIX DAY PER WEEK BALANCED CLASS SCHEDULE APPLICABLE DISTRICT-WIDE TO MEET THE NEEDS OF OUR COMMUNITY WILL REQUIRE ADDITIONAL CLASSROOM SPACE AT OUR EXTENDED CAMPUS OPERATIONS.

1. Currently the Extended Campus leases classroom space from the high schools in Brawley and El Centro in addition to commercial space in all three cities. The commercial space is approximately 15,000 square feet and cost $140,000 per year.
2. Extended Campus currently serves over 1,000 students in the credit program and is forecasted to grow to 3,000 students over the next ten years.
3. IVC is the only Community College in California without a non-credit or not-for-credit program providing primarily adult basic education, vocational and personal enrichment classes that are self supporting, or where tuition and fees pay for the entire cost of the class with no tax support. This program could provide classes to 10,000 students in Imperial County.
4. 20 to 30 classrooms are needed to supplement 200 classes held throughout Imperial County in government, non-profit, and commercial spaces. The cost of 30 classrooms at 1,000 sq. ft. each would be $6 million ($200/sq. ft.).

SUPPLY AND DEMAND FOR CLASSROOM SPACE 2004-2014

This section of the report deals with the supply and demand for classroom space assuming current enrollment boundaries remain the same over the planning period. The classroom capacity was determined using the State of California Community College Space Inventory Report. Based on the Space Inventory Report we currently have 55% of our space unused. This figure assumes that all of the classroom space can be used all the time from 8:00 a.m. to 10:00 p.m., Monday through Friday. It does not take into consideration peak demand times to accommodate an adult student population with work and family obligations that cause fluctuation in scheduling.

Business and industry recognizes that maximum capacity of any building or system to be 85%, which accounts for down-time for repairs and maintenance. Growing institutions have discovered that when their attendance reaches 85% they stop growing and will actually decline. The State determined capacity for IVC is 84,833 student contact hours. 85% is 72,108 student contact hours which is the Imperial Valley College adjusted capacity.

IVC Board of Directors has authorized the District to increase the number of classroom instructors by 50% over the next two years to meet current demand documented by course waiting list by semester. This action will potentially increase student contact

hours to 81,940 resulting in 14% over capacity. In addition the State of California has very conservatively forecast a 39% growth to the year 2014 resulting in 113,897 student contact hours or nearly 60% over capacity.

The total square footage of the college is 286,840 and by year 2014 we will be 171,600 feet over capacity. We will be unable to serve the educational needs of Imperial County students without leasing inappropriate expensive commercial space if available. This deficit does not take into consideration the 10,000 students who will be served in the non-credit adult basic education, vocational technical or personal enrichment program. Those instructional courses will be self support and will pay for the instructor and all facilities related cost associated with the course.

The Imperial Valley College community visioning process resulted in additional facility recommendations of 258,000 square feet to achieve the community's vision for the college. If these additional facilities from this recommendation were to be added we would have 86,400 square feet in excess space to enable IVC to meet increasing demand for our instructional space from growth in the non-credit and not-for-credit program. The cost of providing these additional classrooms would be $200 per square foot.

CURRENT MODERN CURRICULUM FACILITIES REQUIREMENTS AND STANDARDS.

Most of Imperial Valley College's buildings are over 40 years old and have significant curriculum obsolescence including much dysfunctional use. The total square footage of existing facilities is 286,840. All buildings need significant renovation to meet current curriculum, safety and efficiency standards. Using a renovation cost of $50 per square foot it would cost approximately$14.3 million to bring all of our facilities, including parking and exterior classrooms, into the 21st Century.

MAINTENANCE ESTIMATES FROM COMPREHENSIVE SURVEY
$25 million

TOTAL VISION, GROWTH, MODERNIZATION, MAINTENANCE, SAFETY AND REPAIRS COST:

VISION:	$48,000,000
MODERNIZATION	14,300,000
MAINTENANCE & SAFETY	25,000,000
TOTAL FACILITIES NEEDED	$87,300,000

Imperial Valley CCD
Long Range Enrollment and WSCH Forecast, 2003

	Enrollment	WSCH		WSCH/Enrollment		Enrollment	WSCH	
	Actual	Actual	% Chg.	Actual	Forecast	Forecast	Forecast	% Chg.
1970								
1971								
1972								
1973	3257							
1974	3986	48018		12.05				
1975	4679	57097	18.9%	12.20				
1976	4431	55071	-3.5%	12.43				
1977	4597	53304	-3.2%	11.60				
1978	4659	51378	-3.6%	11.03				
1979	4593	51534	0.3%	11.22				
1980	4338	52049	1.0%	12.00				
1981	4532	52774	1.4%	11.64				
1982	4678	52566	-0.4%	11.24				
1983	3466	42254	-19.6%	12.19				
1984	3370	40098	-5.1%	11.90				
1985	3546	40985	2.2%	11.56				
1986	3765	43677	6.6%	11.60				
1987	4111	46227	5.8%	11.24				
1988	4847	50802	9.9%	10.48				
1989	4693	55927	10.1%	11.92				
1990	5716	60247	7.7%	10.54				
1991	6942	63994	6.2%	9.22				
1992	6399	66432	3.8%	10.38				
1993	6445	67130	1.1%	10.42				
1994	6607	65939	-1.8%	9.98				
1995	6492	64533	-2.1%	9.94				
1996	6006	63313	-1.9%	10.54				
1997	6101	65527	3.5%	10.74				
1998	6203	66351	1.3%	10.70				
1999	6042	64998	-2.0%	10.76				
2000	6976	67821	4.3%	9.72				
2001	7131	68943	1.7%	9.67				
2002	7367	72228	4.8%	9.80				
2003					9.80	7434	72885	0.9%
2004					9.80	8087	79288	8.8%
2005					9.80	8316	81537	2.8%
2006					9.80	8555	83875	2.9%
2007					9.80	8813	86402	3.0%
2008					9.80	9039	88620	2.6%
2009					9.80	9256	90749	2.4%
2010					9.80	9516	93293	2.8%
2011					9.80	9799	96070	3.0%
2012					9.80	10074	98770	2.8%
2013					9.80	10345	101423	2.7%
2014					9.80	10617	104087	2.6%
2015					9.80	10862	106491	2.3%

California Community Colleges, Research and Planning Unit

INTERIOR DATA COLLECTION

BUILDING Science Building 400

ROOM 401

	MATERIAL TYPE	MATERIAL CONDITION	FINISH TYPE	FINISH CONDITION	RECOMMENDED ACTION	TIMING	COMMENTS	COST
Floor	RT	1	SLR	4	A	2	Replace With Carpet	$1,912.00
Walls	PL	4	PNT	4	D	2	Prime and Paint	$971.00
Wainscot	N/A	N/A	N/A	N/A	N/A	N/A		
Doors	ST	4	PNT	4	D	2	Prime and Paint	$170.00
Door Frames	ST	4	PNT	4	E	2	Repair, Prime and Paint	$190.00
Windows	GL	5	N/A	N/A	C	4		
Window Frames	ST	5	PNT	5	D	2	Prime and Paint	$168.00
Ceiling	AT	1	PNT	3	A	2	Replace With Drop Ceiling	$1,780.00
Lighting	FL	1	N/A	N/A	A	2	Replace Flourescent Fixtures	$300.00

ROOM 402

	MATERIAL TYPE	MATERIAL CONDITION	FINISH TYPE	FINISH CONDITION	RECOMMENDED ACTION	TIMING	COMMENTS	COST
Floor	RT	1	SLR	4	A	2	Replace With Carpet	$1,844.00
Walls	PL	4	PNT	4	D	2	Prime and Paint	$971.00
Wainscot	N/A	N/A	N/A	N/A	N/A	N/A		
Doors	ST	4	PNT	4	D	2	Prime and Paint	$170.00
Door Frames	ST	5	PNT	5	D	2	Prime and Paint	$168.00
Windows	GL	5	N/A	N/A	C	4		
Window Frames	ST	4	PNT	4	E	2	Repair, Prime and Paint	$175.00
Ceiling	AT	1	PNT	3	A	2	Replace With Drop Ceiling	$1,780.00
Lighting	FL	1	N/A	N/A	A	2	Replace Flourescent Fixtures	$300.00

ROOM 403

	MATERIAL TYPE	MATERIAL CONDITION	FINISH TYPE	FINISH CONDITION	RECOMMENDED ACTION	TIMING	COMMENTS	COST
Floor	RT	1	SLR	4	A	2	Replace With Carpet	$952.00
Walls	PL	4	PNT	4	D	2	Prime and Paint	$486.00
Wainscot	N/A	N/A	N/A	N/A	N/A	N/A		
Doors	ST	4	PNT	4	D	2	Prime and Paint	$170.00
Door Frames	ST	4	PNT	4	E	2	Repair, Prime and Paint	$190.00
Windows	GL	5	N/A	N/A	C	4		
Window Frames	ST	4	PNT	4	E	2	Repair, Prime and Paint	$175.00
Ceiling	AT	1	PNT	3	A	2	Replace With Drop Ceiling	$887.00
Lighting	FL	1	N/A	N/A	A	2	Replace Flourescent Fixtures	$200.00

INTERIOR DATA COLLECTION

BUILDING Science Building 400

ROOM 404

	MATERIAL TYPE	MATERIAL CONDITION	FINISH TYPE	FINISH CONDITION	RECOMMENDED ACTION	TIMING	COMMENTS	COST
Floor	RT	1	SLR	4	A	2	Replace With Carpet	$920.00
Walls	PL	4	PNT	4	D	2	Prime and Paint	$465.00
Wainscot	N/A	N/A	N/A	N/A	N/A	N/A		
Doors	ST	4	PNT	4	D	2	Prime and Paint	$170.00
Door Frames	ST	4	PNT	4	E	2	Repair, Prime and Paint	$190.00
Windows	GL	5	N/A	N/A	C	4		
Window Frames	ST	4	PNT	4	E	2	Repair, Prime and Paint	$175.00
Ceiling	AT	1	PNT	3	A	2	Replace With Drop Ceiling	$858.00
Lighting	FL	1	N/A	N/A	A	2	Replace Flourescent Fixtures	$200.00

ROOM 405

	MATERIAL TYPE	MATERIAL CONDITION	FINISH TYPE	FINISH CONDITION	RECOMMENDED ACTION	TIMING	COMMENTS	COST
Floor	RT	1	SLR	4	A	2	Replace With Carpet	$896.00
Walls	PL	4	PNT	4	D	2	Prime and Paint	$453.00
Wainscot	N/A	N/A	N/A	N/A	N/A	N/A		
Doors	ST	4	PNT	4	D	2	Prime and Paint	$170.00
Door Frames	ST	4	PNT	4	E	2	Repair, Prime and Paint	$190.00
Windows	GL	5	N/A	N/A	C	4		
Window Frames	ST	4	PNT	4	E	2	Repair, Prime and Paint	$175.00
Ceiling	AT	1	PNT	3	A	2	Replace With Drop Ceiling	$837.00
Lighting	FL	1	N/A	N/A	A	2	Replace Flourescent Fixtures	$200.00

ROOM 406

	MATERIAL TYPE	MATERIAL CONDITION	FINISH TYPE	FINISH CONDITION	RECOMMENDED ACTION	TIMING	COMMENTS	COST
Floor	CN	3	PNT	4	B	2	Repair, Prime and Paint	$6,725.00
Walls	PL	3	PNT	4	B	2	Repair, Prime and Paint	$4,127.00
Wainscot	N/A	N/A	N/A	N/A	N/A	N/A		
Doors	ST	4	PNT	4	D	2	Prime and Paint	$341.00
Door Frames	ST	4	PNT	4	E	2	Repair, Prime and Paint	$379.00
Windows	GL	5	N/A	N/A	C	4		
Window Frames	ST	4	PNT	4	E	2	Repair, Prime and Paint	$350.00
Ceiling	AT	1	PNT	3	A	2	Replace With Drop Ceiling	$11,189.00
Lighting	FL	5	N/A	N/A	C	4		

Building 400 Narrative:

From Dr. Zhao
March 8, 2004

Life Sciences area, Building 400, physical facilities affecting our educational mission

The 400 Building is comprised of one life science lab 413 (the only room in the 400 building capable of conducting a full life science course), one chemistry lab (406), one physics lab (410) and one earth and space science lab (409). Currently, we offer 16 sections of life science classes and 8 sections of physical sciences. 413 accommodates 6 sessions of life science classes and open lab sessions. The remaining 10 sections of life sciences are offered in 410. However, 410 was designed primarily as a physics lab and lacks the necessary fixtures to conduct qualified life science lab such as gas and electrical outlets, water and sinks at each work station. Therefore, only imited life science labs can be conducted in 410. 409 is currently used solely as a classroom since we do not have faculty to teach earth and space science classes and it is not equipped at all for life science labs.

Lack of lab space, especially for life sciences, is only compounded by the fact that at the end of phone registration for Spring 2004, there were 1595 attempts to register for life science classes. This demand is equivalent to offering approximately 53 more sessions of life science classes which translates into needing an additional 6 life science laboratories and additional 18 full time equivalent faculty members. Lack of life science lab and lecture space, and the number of students attempting to register for life science classes is all glaring evidence that a new science building is needed to meet the needs of our growing student population. We are clearly leaving students behind who want to learn.

Immediate improvements needed to our current science facilities:

1. All the exterior doors exposed to the sun need to be replaced. They stick and require force to be opened year around, especially during the summer. It is not only a major inconvenience but also a safety issue. In particular some of those rooms have only one exterior door and in an emergency individual cannot exit the room. We are already on record having reported this problem and wish to avoid well known accidents in industry where people were trapped in a building due to inadequate accessibility to an exit.
2. Poor air quality in the 400 building. Our ventilation system needs to be cleaned once a year. We are required to use chemicals and biological media, in our labs, which poses a hazard to all without proper ventilation. We have already submitted a detailed explanation of our concerns regarding the ventilation in the 400 building. We submitted this package last semester (Fall 2003) that included complaints from students and employees in this building. We have not received a response toward our safety concerns.
3. The heating & cooling unit in our building needs to be either completely readjusted or replaced. Uneven heating and cooling in all rooms produces hot-spots in one side of the building and cold-spots in others. This happens year around. We have already had the heating & cooling system assessed by maintenance but to no avail.
4. All classrooms should be internet ready not only for instruction but for students.
5. Each classroom should have an instructor computer workstation.

6. All classrooms and offices should have better sound-proofing so students in the classroom can enjoy quiet learning environment in the classroom and private conversation with the instructors in the offices.
7. Room 410 needs cabinets on the wall to store the life science models. Models are stacked together and damage easily and it is not cost effective in the long-run
8. Room 406 needs mobile cabinets and cabinets on the walls to store experiments.
9. The above substandard systems and elements are so crucial for our mission that the walls and floors are not important to us anymore, though it would be nice to have smooth floors, walls painted, cabinets refinished, water damaged ceiling panels replaced, earth quake cracked walls repaired, desks and chairs for large students and an overall warm, inviting atmosphere for students to enjoy studying in.

Our planetarium for astronomy class is inside 200 building. We like to know if the planetarium is checked in this survey.

The Long Range Facilities Sub-Committee is looking for systems or elements associated with the physical facilities that directly or indirectly affect the educational mission. Please indicate needs and general description of items below:

Floor	
Walls	
	1. Display Cases for All biological and natural science lab rooms
	2. Lockable cabinets for microscopes
	3.
Computer/Technology/ Furniture/Equipment	
	1. Science 2@50 each computer labs
	2. Molecular modeling software for Chem 1B and Chem 12A license ($1500 site license)
	3. NMR & IR simulation software for Chem 12A ($1500 site license)

	4.
Fixtures	1. A Locker for EACH Student in Chemistry so they can perform their own experiments---need approximately 150-250 lockers.
	2. 40 New Desks and Chairs. Many of my students can not fit into our students desks. The chairs we have are also falling apart; students must balance on their sets or else they tip over.
	3. Instrumental Room for chemistry spectrometers and analytical scales
	4. Gas Chromatograph spectrometer Chem 12A ($50K)
	5. Infrared spectrometer Chem 12A ($40K)
	6. Eight fume hoods ($15K each)
	7. New Ventilation system
	8. Handicapped access in the Laboratories
	9. 2@4-foot blast shields ($600 each)
	10. 2@Gas regulators for hydrogen, oxygen, helium, argon
	11. 10@Melting point apparatus ($800 each)
	12. 10@Visible spectrometers ($600 each)
	13. 10@pH meters ($1.3K each)
	14. Glassware ($20K)
	15. Light switches at the front of the room to control lighting in the room
	16. Induced Coupled Plasma (ICP) ($70K)
Other	1. 2 lectures rooms to seat 60 students for chemistry lecture ONLY, complete with video projector, podium, and white boards. This lecture rooms should be

attached to the Chemistry Laboratory Preparation room so chemistry demo's can be brought in during lecture.
2. 2 lab rooms to accommodate 50 Chemistry students each, complete with fume hoods (4 each), new sinks, bench work area, stools, white boards, and lecture podium
For the Laboratory Preparation Room
4. New 100by100 foot chemistry laboratory preparation room complete with portable shelving (separating each experiment) for Chem 2A (4 sections a semester), 2B (to be offered in 2005), 1A (1 section a semester), 1B (every other semester), and 12A (every other semester) labs.
5. Hazardous Waste disposal System
6. Cryogenic freezer
7. Sub Zero freezer
8. 4@Stainless steel 6'by12' walk-in refrigerators for storing biological specimens.
9. Solar Powered 100 gallon, roof mounted Deionization Water system
10. Deionization Water access in preparation room and all lab stations.
11. Dishwasher
12. 3@10 cubic foot ovens
13. Standup double door blast proof refrigerator
14. Standup double door low moisture refrigerator
15. Mobil shelving for ALL labs
16. Fume hood for preparation room