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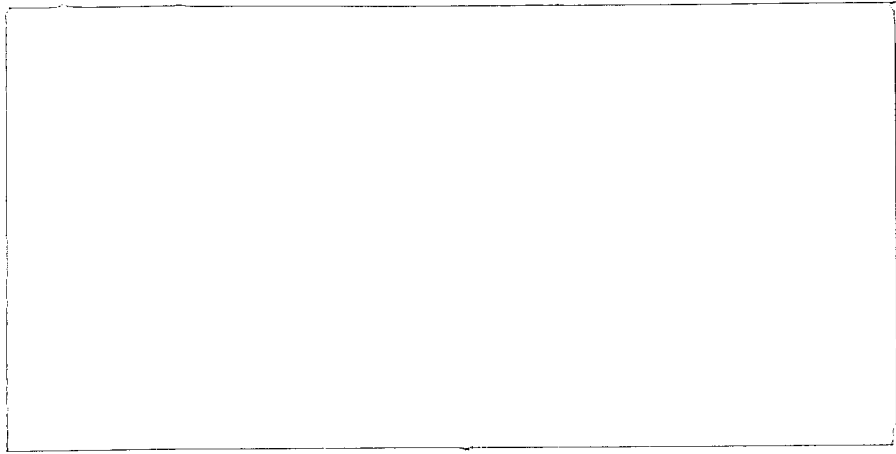


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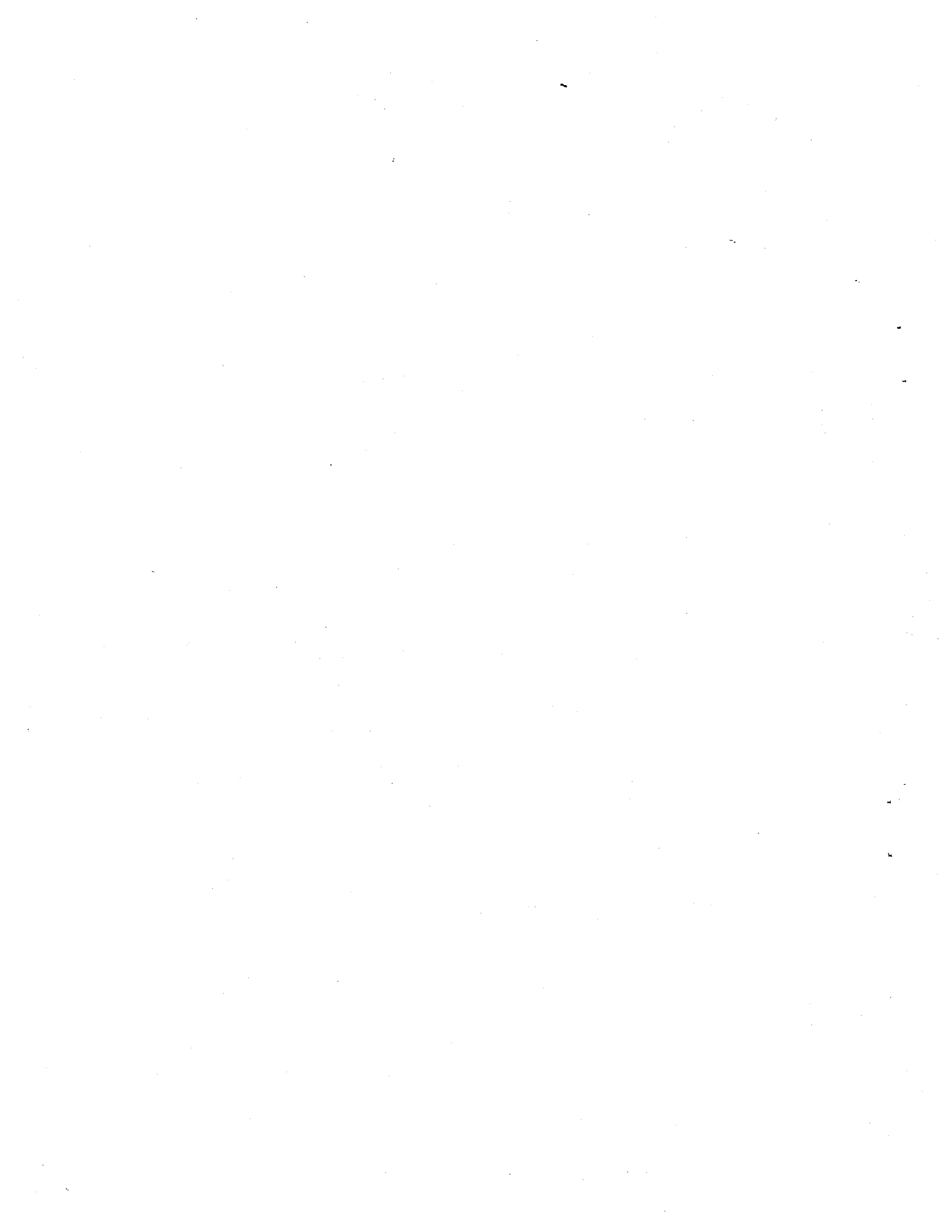
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*Robert G. Cronson*  
*Auditor General*



MANAGEMENT AUDIT  
CAPITAL DEVELOPMENT BOARD  
MANAGEMENT OF THE CONSTRUCTION  
OF THE  
STATE OF ILLINOIS CENTER



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*To the Legislative Audit Commission, the  
Speaker and Minority Leader of the House  
of Representatives, the President and  
Minority Leader of the Senate, the Members  
of the General Assembly and the Governor:*

This is our report of the Management Audit of the Capital Development Board in managing and monitoring the construction of the State of Illinois Center.

We conducted this audit at the direction of Legislative Audit Commission Resolution No. 70, adopted December 18, 1984. This audit was conducted in accordance with generally accepted governmental auditing standards and the audit standards promulgated by the Office of the Auditor General at 74 Ill. Adm. Code 420.310. The report is transmitted in conformance with Section 3-14 of the Illinois State Auditing Act.

A handwritten signature in cursive script, reading "Robert G. Cronson".

ROBERT G. CRONSON  
Auditor General

Springfield, Illinois  
March 1986





STATE OF ILLINOIS  
OFFICE OF THE AUDITOR GENERAL  
SPRINGFIELD

ROBERT G. CRONSON  
AUDITOR GENERAL

REPORT DIGEST

MANAGEMENT AUDIT  
STATE OF ILLINOIS CENTER  
MARCH 1986

INTRODUCTION

The Legislative Audit Commission, in a resolution passed on December 18, 1984, directed the Auditor General to conduct an audit of the activities of the Capital Development Board (CDB) in managing and monitoring the construction of the State of Illinois Center (SOIC) at Chicago. The Resolution directed specific attention to determining the total costs of the project, causes of delay in completion, changes in design and other factors leading to cost increases, and also to the adequacy of the management exercised by CDB in monitoring and controlling the construction of the Center.

We have made 18 recommendations. CDB has responded to all of the recommendations, of which they accept two and reject 16. Their responses are included in both the body of the text, and in Appendix J. Additional material from CDB, consisting of 58 comments, is included in Appendix J along with their responses to the recommendations.

PROJECT PLANNING

CDB began planning studies during the mid 1970's to establish the need for a new State office building. Staff selection committees reviewed potential sites and professional contractors for the SOIC project. Selection of the site, the architect/engineer, the construction manager, and the space planner were then made by the Board based on the recommendations of the various committees. However, the selection of the design, considered by many to be the most controversial aspect of the building, was made by the Governor.

PROJECT DELAYS

Although the SOIC has been open to the public and has housed many State agencies for nearly a year, parts of the structure

remain incomplete, and very few of the construction contracts have been certified as completed. The project is more than two years behind its planned completion schedule, and the delays in construction have resulted in additional rental costs for various State agencies of approximately 6.3 million dollars. Furthermore, the air conditioning system for the entire summer of 1985 was unable to cool the building, and still has not been fixed.

## PROJECT COSTS

As of November 28, 1985, the total costs of the SOIC, including site acquisition and planning, were \$170,970,644, with additional costs still to be met. Allowing for art and CTA moneys not included in the earlier figures, this cost exceeded the budgeted amount of 149 million dollars by 13 percent, but was about 126 percent over the original cost estimates that CDB had made public. Although the internal cost estimates used by CDB were only moderately under the nearly complete final costs of the building, CDB at several points made information public that was either incomplete or misleading about project costs. CDB also represented in public announcements that the Dubuffet sculpture, which stands in the plaza outside the building, was donated at no cost to the public, whereas in fact the State paid \$222,175 for its installation and other costs.

## PROJECT MANAGEMENT

There were significant deficiencies in the management of both the construction and financial aspects of the project. CDB's own standards for approving work changes, for certifying contract completion, and for maintaining project completion schedules were not adhered to. CDB did not effectively facilitate communication and coordination among its contractors, nor did it ensure that the management responsibilities that it delegated to its professional contractors were fulfilled.

### Financial Management

CDB presented incomplete and misleading information to the public about total costs of SOIC even though internal budget figures were reasonably accurate. CDB did manage to stay close to those internal budgets, however. CDB was able to do this by not committing firmly to most design aspects and specifications until each phase was bid, then selecting the design alternatives that fell within the budgeted amount, and in some cases by eliminating certain features or amenities.

CDB has indicated they may not collect the charges associated with A/E errors and omissions, and has a longstanding practice of forgiving these charges. CDB has no express or necessarily implied statutory authority to forgive such debts, and has a duty to collect amounts owing to the State.



CDB said they are unable to provide a breakdown of estimated costs to complete the project because they lack the records to do so. They estimated the total cost to complete as of June 30, 1985 to be \$4,337,582.

### Construction Management

CDB took a passive rather than active posture in managing the construction of the SOIC. Only two persons from CDB were assigned to manage a project of this size. The responsibilities of the Construction Manager, whom CDB had contracted with to manage the project were reduced early in the project. The restructuring of roles and duties that occurred when the Construction Manager's duties were changed led to confusion among the contractors and a lack of clarity about lines of reporting. CDB did little to reduce this confusion and clarify responsibilities.

We found many examples of CDB's passive approach to managing the SOIC project. CDB did not take the necessary actions to keep the project on or close to schedule. Consequently, delays in producing architectural drawings led to project completion delays, which in turn led to increased rental costs for State agencies. The long delays required that the original space planning be redone one or more times. The long delays also resulted in substantial increase in payments to the Architect/Engineer and the Construction Manager that would not have been incurred had the project remained closer to its original schedule.

CDB did not ensure that the Architect conducted necessary inspections to issue Certificates of Substantial Completion. Substantial completion is a condition which occurs when CDB accepts the certification of the Architect/Engineer that construction is sufficiently complete in accordance with the Contract Documents so that the project or a designated portion thereof may be occupied or utilized for the use for which it is intended. The lack of inspections created a gap in the quality controls and also led to delays or failures to issue Certificates of Substantial Completion before the building was occupied.

CDB did not require the Construction Manager to abide by certain contract stipulations. The Construction Manager did not update the Master Construction Schedule monthly as required by contract. The Master Construction Schedule is used to coordinate the work schedule of the many contractors on a large project, and it is updated to reflect project revisions. Furthermore, the Construction Manager stopped holding job progress and pay request meetings before the end of the project. Pay request meetings are held to discuss progress and mutually decide on the percentage of work completed in order to determine the amount of a Contractor's payment.

CDB did not see that its procedures for processing change orders for extra work were followed, and in fact, may have been unaware that violations of their procedures were occurring.

#### PROJECT COORDINATION

CDB has not worked out a smooth and effective transition schedule with the Department of Central Management Services (CMS). There is considerable disagreement over who is responsible for the building systems. While CMS does not want to accept the responsibility for systems that are incomplete or not functioning properly, CDB claims that they can sign acceptance of mechanical systems as an agent for CMS on the CDB Certificates of Substantial Completion, thus transferring responsibility to CMS.

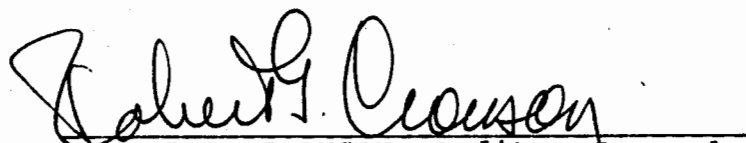
#### RECOMMENDATIONS

We made 18 recommendations to CDB. We recommended that CDB should release accurate and total cost estimates to the public and Legislature. The cost estimates released should reflect the total estimated cost of the project in detail. We recommended that CDB make every effort to collect amounts owed the State for Architect/Engineer errors and omissions after the Change Order Review Committee has determined how much is owed on this and future projects. We also made several management recommendations.

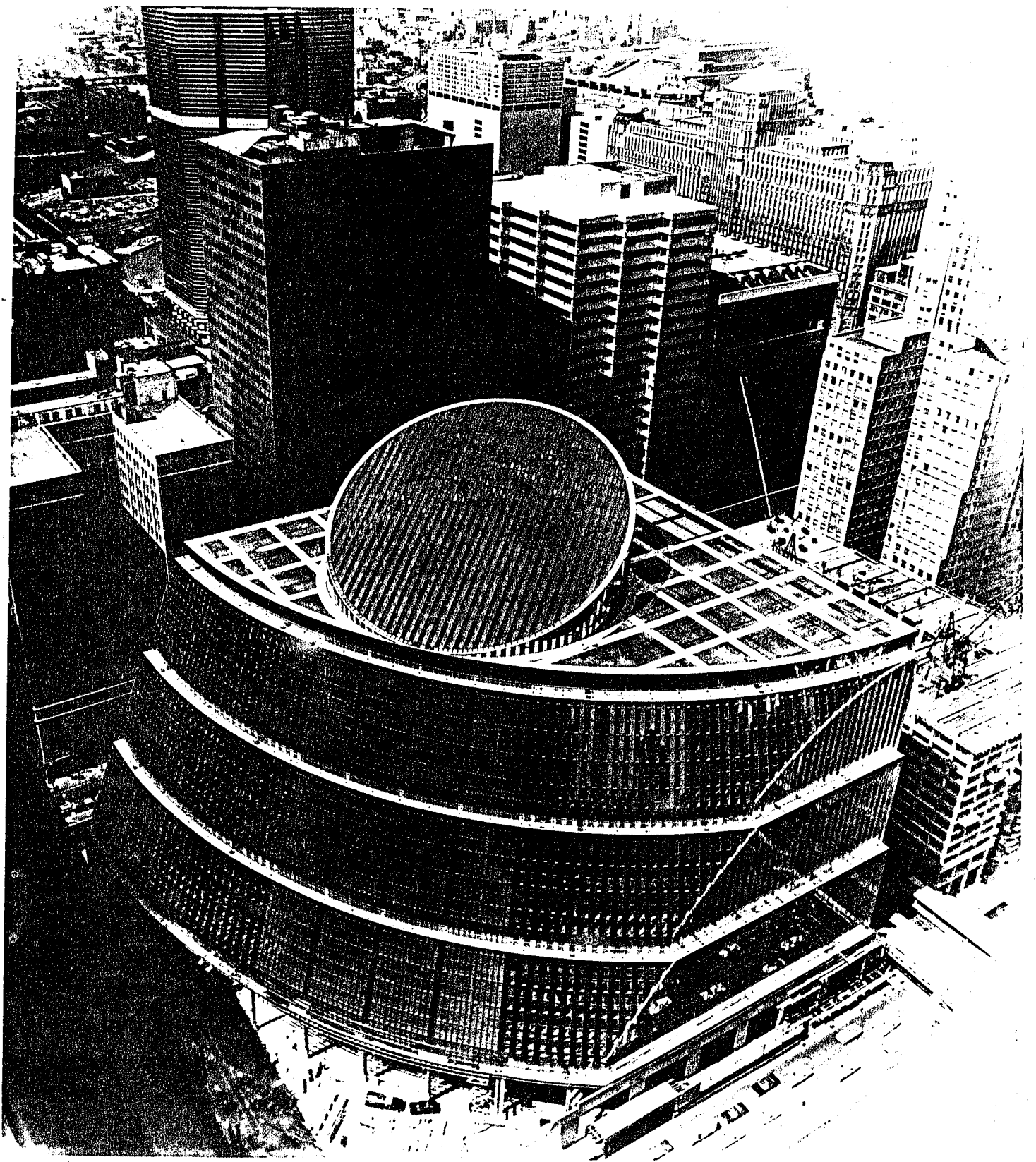
#### MATTERS FOR CONSIDERATION BY THE GENERAL ASSEMBLY

Tenants were moved into the building without benefit of either Certificates of Substantial Completion, authorized by CDB, or of Certificates of Occupancy issued by the City of Chicago.

The Legislature may wish to consider providing for oversight of newly constructed State buildings where city laws are not applicable.

  
ROBERT G. CRONSON, Auditor General

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## CHAPTER I

### INTRODUCTION

On December 18, 1984, the Legislative Audit Commission adopted Resolution Number 70 directing the Auditor General to conduct an audit of the Capital Development Board's management of the construction of the State of Illinois Center (SOIC).

The issues to be addressed in this management audit as determined by the Resolution were:

1. total cost of the project.
2. changes in design or specifications that affected cost.
3. adequacy of monitoring and controls.
4. reasons for project delays.
5. evaluation of original and current cost estimates.

Special emphasis was to be directed to determining the reasons for final costs exceeding early estimates of \$89 million.

We found that early published costs were incomplete, and therefore misleading. Detailed information on this and other findings is in the body of this report.

### AUTHORITY AND RESPONSIBILITY

The Capital Development Board (CDB) was responsible for planning, directing and coordinating all activities during the design and construction of SOIC. Its authority to do so was derived from the Capital Development Board Act and appropriations granted by the General Assembly.

CDB was created in July 1972 by Public Act No. 77-1995 to administer the State's capital improvement program. Board powers relevant to this audit are:

To provide for the acquisition, planning, construction...of capital facilities... and for the acquisition and improvement of real property...as authorized by the General Assembly by appropriations from the Capital Development Bond Fund,... general revenue fund, other funds, or revenue bonds... (1983 Ill.Rev.Stat.,Ch.127,par.779)

and;

To enter into contracts on behalf of the State of Illinois to effectuate the purpose of this Act subject to the Illinois Purchasing Act.

(1983 Ill.Rev.Stat.,Ch.127,par.779)

The Board is composed of seven members appointed by the Governor who designates one as Chairman. Members serve without compensation, but are reimbursed for their expenses. The Board acts through its staff as a contracting agency, utilizing private enterprise for architectural, engineering and construction services. It also recommends releases, approves Change Orders and makes final selection of professional contractors. Among important staff functions are monitoring performance to help ensure timely completion of projects within cost limitations, and adherence to applicable building standards. On the SOIC project CDB contracted with a Construction Manager to perform certain of these functions.

CDB does not initiate projects, but rather responds to capital improvement needs identified by other State agencies and governmental units. Each project must be approved by the Governor and enacted by the General Assembly through its appropriations. The need for a new office building in Chicago for State agencies was first identified by the former Governor, and later substantiated in planning studies. The State of Illinois Center and the activities associated with its planning and construction were authorized by the appropriations shown in the following table.

**Table I  
APPROPRIATIONS FOR SOIC**

Fiscal Year	Purpose	Appropriation
1975	For initial planning of a building and satellite centers in Metropolitan Chicago	\$ 925,000
1976	For planning for office facilities in the Chicago Loop Area	3,000,000
1979	For planning and land acquisition for the new State of Illinois Center in Chicago	15,000,000
1980	For land acquisition, planning and site development for a new State of Illinois Center at Chicago	12,000,000
1981	For planning, site development and construction of a new State of Illinois Center	96,282,600
1983	For the Department of Administrative Services (CMS) for planning and construction of the new State of Illinois Center*	30,000,000
1983 (supplement)	Completion of interior areas including equipment	<u>15,000,000</u>
Total Appropriation		<u>\$172,207,600</u>

\*appropriated from the Capital Development Fund to the Capital Development Board for the Department of Administrative Services for planning and construction of SOIC.

The Department of Central Management Services (CMS) is both a user and manager of the State of Illinois Center. CMS has the power and duty to "manage, operate, maintain and preserve from waste...the State of Illinois Center....", and to "make purchases of or contracts for...equipment and utilities for all State agencies,...and coordinate telecommunication services for State Agencies." (Ill.Rev.Stat.1983, ch. 127, par. 63b13 et seq.) Responsibilities are turned over to them by CDB as the building, or parts of it, are completed. In addition, at SOIC, CMS was responsible for the leasing of the commercial space.

## SCOPE AND METHODOLOGY

This management audit was conducted in accordance with generally accepted governmental auditing standards and the audit standards promulgated by the Office of the Auditor General at 74 Ill. Adm. Code 420.310.

Scope was limited to the activities of CDB in managing and monitoring the construction of the State of Illinois Center. We interpreted this to include activities of the Architect/Engineer, the Construction Manager, and the General Contractors engaged by CDB, as well as CDB's interface with CMS. Some problems associated with the building fall under the purview of CMS. These are outside the scope of this audit, but could be the subject of a future audit.

The design of SOIC was also outside the scope of the audit resolution. The events that led to the choice of a particular design, however, are mentioned in the portion of the report that deals with the narrative history of the project and also in the section that deals with the Architect's responsibilities.

Methodology consisted of: an examination of relevant statutes, Rules, CDB policy and procedure manuals, and Comptroller's records; discussions with appropriate CDB and contract personnel; and a review of the files of CDB, the Construction Manager, and the Architect/Engineer. We engaged the services of an expert consultant and a Public Accounting firm to aid us in the technical aspects of the audit. The firm of Price Waterhouse assisted in answering Determination #3 of the Audit Resolution; and the consultant reviewed and evaluated change orders processed for SOIC contracts. Finally, we conducted a survey of user agencies in the building to help us determine whether SOIC goals were met.

## REPORT ORGANIZATION

In Chapter II we will discuss the goals CDB set for the project and how well they were met; and their planning decisions, including the selection methods used for choosing the site, design, and professional services.

Chapter III will describe how the project was organized and responsibilities were delegated; and to what extent those responsibilities were met.

Chapter IV discusses deficiencies in monitoring controls and delays to the project.

Chapter V compares cost estimates with actual costs, details actual costs, and discusses CDB's final estimate to complete the SOIC.

In Chapter VI we will present a summary analysis of the material in the preceding chapters, and of user satisfaction with the building.

We have prepared an Exhibit of important milestones over the life of the SOIC Project from 1974 to December 1985. Our audit, however is directed to the management of the construction of the SOIC, and covers the period from early 1977 to September 1985.

## EXHIBIT I

### PROJECT MILESTONES

- 1974 Completion of First External Study of Space Requirements for State Agencies in Chicago & Cook County
- 1975 Adoption of Resolution 75-38 by CDB on 12-11-75: Defined Basic Boundaries for Site Selection and Established Criteria for Evaluation
- 1976 Site Proposal Requested by CDB
- 1977 Completion of Program Statement
- 1978 Site Proposal Approved by CDB
- 1979 Selection of Professional Firms
- 1980 February/March: CDB Awarded Site Preparation Contracts: Barricades, Electrical & Demolition
- April: Demolition Initiated
- May: Completion of Land Acquisition
- October: CDB Awarded Contracts for Bid Package 1: Caissons, Excavation & Earth Retention
- 1981 May: CDB Awarded Contracts for Bid Package 2: Core Structure & Enclosure (General, Electrical, Ventilation, Heating/Refrigeration/Air Conditioning, & Plumbing/Fire Protection)
- Summer: Operating Engineers Strike
- December: Personnel Hoist Accident
- December: Excavation Completed
- 1982 January: Erection of Structural Steel Begun
- September: Superstructure "Topped Out"
- October: Construction of 442-Ton Atrium Space Frame at Street Level Begun
- December: CDB Awarded Contract for Bid Package 3: General, Sitework/Storefront
- 1983 January: Elevated Space Frame 222 Feet Through Atrium for Installation
- June: CDB Awarded Contract for Bid Package 4: Interior Finishes (General, Electrical, Sprinkler/Fire Protection, Heating, Ventilation & Carpeting)

November: Lease Signed by CMS and State Building Venture  
for Development of Commercial Space

December: Temporary Enclosure of Building Completed for  
Interior Finish Work During Winter Months

1984 June: CDB Awarded Contract for Bid Package 5: Tunnel Con-  
necting SOIC With City Hall

October: CDB Awarded Contract for Bid Package 6: General  
Paving

November: Two State Agencies Move Into SOIC

November: CDB Awarded Contract for Bid Package 7: Electri-  
cal Security

1985 Winter/Spring: State Agencies Move Into SOIC

March: City of Chicago Files Suit Against State for  
Violations of City Codes at SOIC. City Requests A  
Temporary Restraining Order

April: No Restraining Order was Issued. No Decision on  
Sovereign Immunity

May: Official Dedication of SOIC

October: CDB Awarded Contract for Bid Package 9: General  
Plumbing (Clark Street Sewer)

December: CDB Awarded Contract for Bid Package 8: General  
Equipment/Signage

Source: CDB Schedule, updated by OAG





## CHAPTER II

### PLANNING FOR THE STATE OF ILLINOIS CENTER

Conceptual planning for the State of Illinois Center (SOIC) began in the mid 1970's. Extensive planning was carried out in the early stages of the project. Based on the planning studies, CDB prepared a Program Statement setting goals for the project. Subsequently, CDB devoted efforts to the identification and selection of professional services required to effectively complete the project. The Governor's desire to enhance the surrounding area and contribute to the rejuvenation of the North Loop influenced his selection of the design. The aim was to develop a building to centralize State agencies at a downtown location. The design was chosen both to meet the project goals and to serve as a monument to State government. The open atrium design is meant to symbolize openness in government and accessibility to all citizens of Illinois.

The project was well planned in the early stages, although some planning may have been done too early to be optimally useful. There were inconsistencies in the selection process for professional contractors, but we found no violations of rules or Illinois statutes. Most, but not all, of the goals set for SOIC were met.

#### GOALS FOR SOIC

In September of 1976, CDB retained the Ehrenkrantz Group to develop a Program Statement which would identify the State agencies that might occupy the building, and their space requirements. In March of 1977, Ehrenkrantz identified 51 State agencies with a staff of approximately 3700 employees and 670,400 net assignable square feet (NASF) by 1980. In 1977, CDB updated the Program Statement to reflect the State agencies' requirements for 1985. The CDB Program Statement changed several times to more accurately describe agency needs. For example, the Program Statement dated January 24, 1979 projected 59 State agencies with 3733 employees and 635,480 NASF, while the December 10, 1979 Statement listed 57 State Agencies with 4350 employees and 774,728 NASF.

Throughout the planning and construction of SOIC, CDB used inconsistent data when projecting the square footage of the building and the number of State agencies and personnel to be housed in the building. Until the occupancy of SOIC in early 1985, their descriptions of State agencies and personnel were higher than the actual numbers that moved into the building. Table 2 shows the various figures CDB used in official press releases.

**Table 2**  
**DESCRIPTIONS OF SOIC BY CDB**

<u>Date of Release</u>	<u>Sq. Footage (in GSF)</u>	<u>Number of Agencies</u>	<u>Number of Employees</u>
9-20-77	1,000,000	51	--
3-29-78	--	over 50	3400
4-19-79	--	over 50	4200
9-21-79	--	over 50	4200
- -80*	1,150,000	54	4200
- -80*	1,150,000	over 50	--
- -80*	1,150,000	54	4200
3-11-80	1,150,000	over 50	over 4000
11-05-80	1,200,000	over 50	over 4000
5-21-81	--	over 50	over 4000
9-01-82	1,200,000	over 50	over 4000
4-17-85	--	--	over 3000

\*Exact dates not available

Source: CDB Press Release File

The SOIC houses approximately 2900 State employees, rather than the higher numbers established in the Program Statements. The smaller number in the building can be attributed both to fewer agencies than anticipated, and to individual agencies with fewer personnel than they predicted for 1985. Over fifty State agencies were earmarked in CDB's Program Statements for location at SOIC. Some of the agencies were commissions and authorities that were subsequently abolished. As of September, 1985, there were 46 agencies located at SOIC. Although there are 54 State office locations in the building, some agencies are occupying more than one office. In the original plans these offices were not counted separately, but as part of one agency. The extra offices and the agencies involved are as follows: the Court of Claims is administered by the Secretary of State. The Governor's Office of Citizen Assistance, the Governor's Office of Consumer Services, the Governor's Planning Council on Developmental Disabilities, and the Governor's Office of Personnel are each sections of the Office of the Governor. The Legislative Leadership has four offices: Senate Majority and Minority, and the House Majority and Minority.

Several large agencies are not located at SOIC. These agencies include the Department of Transportation, the Department of Employment Security, and the Department of Public Aid. The Department of Public Aid was originally scheduled to be located on the third floor of SOIC. However the Department of Commerce and Community Affairs moved into that space.

In early planning studies, the Department of Central Management Services projected that the State of Illinois would save \$1,717,976 in yearly rent if a State office building would be built to house State agencies that were renting space. Of the 46 agencies that are located in SOIC, 24 came from the former State office building and 22 came from locations

throughout the Chicago metropolitan area, at an annual cost savings of \$3,172,865 in rents. This amount exceeds the original forecast by \$1,454,889.

## SELECTION OF A SITE

CDB recognized the need for a new building by formal resolution in December 1975, and requested site proposals the following February. Consultants, engaged after CDB staff screened proposals, evaluated the five site finalists for potential commercial use and impact. The Sherman House, the site eventually chosen, ranked third. However, subsequent market studies and appraisals eliminated the Sherman House from further consideration. Its acquisition was seen as a potentially complicated process because there were multiple owners.

In November of 1977, with a new administration in place and changed economic conditions, CDB staff reevaluated the site analyses. The result was lowered ratings for three sites under consideration and a higher preference for the Sherman House. Proposed redevelopment of the North Loop had enhanced its desirability. It was suggested that SOIC could be a mainstay for the redevelopment. In March of 1978, a staff report to the Board recommended the Sherman House site as the most viable, contingent on the full support and cooperation of the City. One month later a Board Resolution approved the Sherman House.

The Governor announced the selection of the Sherman House Block as the site for a new building on August 2, 1978. Acquisition of the land was a joint project between CDB and the City of Chicago. The City handled the condemnation proceedings for the State on a reimbursable basis. Acquisition was scheduled for completion by January 1, 1980. The last parcel was acquired by judgment order on April 7, 1980, twenty months after the public announcement.

## SELECTION OF THE PROFESSIONAL SERVICE FIRMS

The Contracting Strategy Committee, made up of CDB Staff, determined the professional services desired, how they would relate to each other, and the process by which the best qualified firms might be selected.

The Contracting Strategy Committee recommended to the Executive Director of CDB two selection methods: limited design competition and a method consisting of advertising, proposals, and interviews. The former would result in the choice of a building design, and along with it an Architect/Engineer (A/E). The latter method would result in the choice of an A/E who would design a building. According to the Committee minutes, limited design competition was ruled out due to time constraints and because the Executive Director wanted to retain the right to make the final selection. Not having a design competition precluded

the kind of public scrutiny that might have occurred with that option.

### **Architect/Engineer**

Project specific questionnaires, evaluation criteria and scope of services for professional services firms were drafted. Advertisements were sent in June 1978 to all pre-qualified Architect/Engineer firms and to specified publications. A selection committee was appointed to evaluate the firms using the following criteria, listed by relative importance.

1. Quality of expertise
2. Experience on large structures
3. Quality of past CDB experience
4. Proximity to Chicago
5. Size of firm
6. Current workload

In November 1978, this Committee screened 20 firms. After further evaluation, the Committee conducted formal interviews and selected five firms, including Murphy/Knight. Each Committee member then prepared a written impression of the interviews and a justification for their scores.

The Committee concluded that any of the firms would be capable of executing the SOIC project. The firms were recommended in unranked order to the Executive Director of CDB for the Board's final decision.

An earlier memorandum to the Director from the Committee Chairman had ranked the five finalists according to the Chairman's preference. This ranking was identical to the unranked order. The memo stated the top three were most likely to produce "an award winning edifice" and "With the selection of the Murphy/Knight combination CDB would be virtually assured of a building that would be acclaimed not only for its appearance, but also for its functional suitability as well."

### **Construction Manager**

The selection of a Construction Manager was based upon information supplied by 12 interested firms, information in CDB's prequalification files, and other review procedures using criteria supplied by the Contracting Strategy Committee. In November of 1978, the Construction Manager Selection Committee identified four firms, including Morse/Diesel, for further consideration. The Committee interviewed representatives of these firms and invited each of them to submit a formal proposal. The purpose of the interview was to discuss the content and negotiate the terms of their proposal.

On March 5, 1979, the Construction Manager Selection Committee supplied the Executive Director of CDB with evaluations of

the four firms. The Construction Management contract was awarded to Morse/Diesel. This award was not made without reservations about Morse/Diesel's management capabilities. Morse/Diesel's past experience with CDB as Construction Manager on other projects had not been good. According to a CDB March 3, 1978 memorandum, Morse/Diesel had a "reluctance (on the Hospital and HST [Harry S Truman] College projects) to:

- 1) Furnish timely value engineering, and
- 2) Perform accurate budgeting functions, and
- 3) Perform sophisticated scheduling operations (CDB had to pay Morse/Diesel an extra \$47,500 for CPM work), and
- 4) Undertake cost control on any basis than after the fact."

Morse/Diesel's performance on the University of Illinois Replacement Hospital was evaluated by the Project Executive and the Senior Project Manager as fair.

#### Interior Design/Space Planner

In October 1978, the Executive Director of CDB appointed five staff members to the Space Planning/Interior Design Selection Committee. The Committee considered four factors in their preliminary evaluation of information submitted by 22 interested firms. Based on the preliminary evaluation, 11 firms were identified for further consideration.

On December 12, 1978 the Committee met and reviewed the eleven firms and eliminated five. Although Vickrey/Ovresat/Awsumb (VOA) had not been categorized as one of the strongest firms, a motion to delete them was not seconded. Discussion indicated the committee felt that VOA's strong points were: understanding of the scope; positive utilization of consultants; adequate staff strength; and Chicago based operations. The remaining top six firms approved for further consideration included VOA. Each was given a formal interview with the Committee.

Based on the interviews, the Space Planning/Interior Design Selection Committee ranked the six firms under consideration, and on March 7, 1980, sent a memorandum to the Executive Director of CDB with the results. Each member of the Committee had scored the six firms interviewed based upon the evaluation criteria. According to the raw scores in Table 3 and the adjusted scores in Table 3A, Firm 2 had the highest rating.

**Table 3**  
**Interview Results**  
**Rating of Interior Design/Space Planner**

Raw Scores	Member A	Member B	Member C	Member D	Member E	Average	Rank
Firm 1	48.75	50	58	66	64	57.35	4
Firm 2	59.75	64	64	82	54	64.50	1
Firm 3	54.00	51	46	90	60	60.20	3
VOA	61.25	64	62	70	62	63.85	2
Firm 5	57.50	48	49	42	61	51.50	6
Firm 6	-	49	47	59	59	53.50	5

**Table 3A**  
**Interview Results**  
**Rating of Interior Design/Space Planner**

Scores	Member A	Member B	Member C	Member D	Member E	Average	Rank
Firm 1	87.50	86	94	76	100	88.70	4
Firm 2	98.50	100	100	92	90	96.10	1
Firm 3	92.75	87	82	100	96	91.55	3
VOA	100.00	100	98	80	98	95.20	2
Firm 5	96.25	84	85	52	97	82.85	6
Firm 6	-	85	83	69	95	83.00	5

However, when each Committee member ranked their firm preference according to their scores, VOA had the highest ranking. One member's lowest ranking (Member E) was given to the firm with the highest scores, thus skewing the results. Table 4 illustrates the ranked scores of the six firms.

**Table 4**  
**Interview Results**  
**Ranking of Interior Design/Space Planner**

Ranked Score	Member A	Member B	Member C	Member D	Member E	Average	Rank
Firm 1	5	2	3	4	1	3.0	3
Firm 2	2	1	1	2	6	2.4	2
Firm 3	4	4	6	1	4	3.8	4
VOA	1	1	2	3	2	1.8	1
Firm 5	3	6	4	6	3	4.4	5
Firm 6	-	5	5	5	5	5.0	6

Agencies are not required to use competitive bidding for Artistic and Professional contracts. CDB and other agencies are

free to use any method they choose for selection. All that we are noting here is that the method used in the selection process for VOA was different than that used to select the other professionals.

#### SELECTION OF THE DESIGN

Design selection followed from the choice of an Architect. On August 6, 1979, CDB awarded a contract to the joint venture of Murphy/Knight to provide the architectural and engineering services for the SOIC project. Descriptions of the services to be performed by the A/E are specified in Article 5 of the contract. According to the contract, the A/E was responsible for the preparation of two building design concepts.

On August 28, 1979, Murphy/Knight presented the following conceptual design schemes to CDB:

#### CONCEPTUAL DESIGN SCHEMES FOR SOIC

Schemes	Description
1	East-West Tower
2	North-South Tower
3	"L" Building
4	Sliced Block
5	Broken Block
6	Donut
7	Broken Donut
8	Arcaded Block

The above schemes all contained approximately 1,000,000 square feet of office space and 150,000 square feet of commercial space. After reviewing the above proposals, CDB directed Murphy/Knight to pursue designs 2, 5, and 8, from which the Governor would make his choice. These were further developed and then presented to the Governor and the CDB Executive Director for final selection. They are described in Table 5.

**Table 5**  
**DESCRIPTION OF THE FINAL THREE CONCEPTUAL DESIGNS FOR SOIC**

Scheme	Estimate*	Description
#2	\$121,096,000	A 25 story tower fronting on LaSalle Street with a plaza along Clark Street (1,151,626 s.f.).
#5	\$113,801,000	A series of square towers and separate atriums varying from 17 to 25 stories and covering the entire block (1,156,900 s.f.).
#8	\$115,266,000	A 22 story set-back block with an atrium with a curved and diagonal orientation to the southeast (1,152,730 s.f.).

\* Morse/Diesel estimates on 10/18/79. Estimates do not include planning, land, demolition, equipment, professional services and art costs.

On October 19, 1979, a presentation meeting was held to discuss the final three design proposals. Ultimately, the Governor chose #8. On November 15, 1979, the A/E was formally instructed by CDB to proceed with the development of Design Scheme 8.

#### SELECTION OF GENERAL CONTRACTORS

In 1978, the CDB Contracting Strategy Committee had decided that an optimum mix of professional services for the SOIC project would be an Architect/Engineer, a Construction Manager and a Space Planner/Interior Designer. The original contract for the Construction Manager anticipated that separate prime contractors would be supervised, scheduled and coordinated by Morse/Diesel Inc.

Internal CDB memorandums indicate that the Construction Manager did not accurately predict the bidding climate nor inspire competition in the market place for the foundation work in Bid Package #1. Furthermore, as a result of difficulty in obtaining a reasonable bid for the glass curtainwall as one contract, the superstructure and tenant work (Bid Packages #2 & #4) was bid and awarded to general contractors with assigned prime contractors.

Due to a change in CDB's contracting strategy, from one involving numerous prime contracts under the supervision of a Construction Manager to one involving a general contractor with assigned prime contractors, the Construction Manager's contract was modified. The responsibility to coordinate, supervise and schedule the prime contractors' work was taken from Morse/Diesel and bid and awarded to the General Contractors, Newberg/Paschen and



Walsh Construction Company. This modification followed shortly thereafter.

The contract was awarded to Newberg/Paschen in the summer of 1981 to build the superstructure of the SOIC for \$63,977,000. Prime contractors, engaged by CDB, were assigned to Newberg/Paschen for supervision. The General Contractor also engaged and supervised his own subcontractors. The General and assigned prime contractors for Bid Package 2 are listed in Table #6.

**Table 6**  
**BID PACKAGE 2 (GENERAL SUPERSTRUCTURE) CONTRACTORS**

	Service	Proceed Notice	Amount
<b>General Contractor:</b>			
Newberg/Paschen	General	7-13-81	\$63,977,000
<b>Assigned Prime Contractors:</b>			
Commercial Light	Electrical	7-13-81	3,480,646
Pullman Sheet Metal	Ventilation	8-11-81	3,750,600
Economy Mechanical	Heating, Refrigeration, & Temperature Control	7-13-81	6,829,000
A.J.Lowe & Sons	Plumbing & Fire Protect.	7-13-81	<u>1,631,631</u>
<b>TOTAL BID PACKAGE 2 (original contracts)</b>			<b>\$79,668,877</b>

Source: OAG, compiled from CDB Documents

The general contracts for the Sitework/Storefront in Bid Package #3 and the Tenant contract in Bid Package #4 were awarded to Walsh Construction Company. In Bid Package #3, Walsh had no assigned prime contractors. In Bid Package #4, five prime contractors were assigned to Walsh Construction Company. Contractors for both Bid Packages are shown in Table 7.

**Table 7**  
**BID PACKAGES #3 and #4 CONTRACTORS**

	Service	Proceed Notice	Amount
<b>Bid Package #3</b>			
General Contractor Walsh Construction	General	1-04-83	<u>\$16,998,000</u>
<b>Bid Package #4</b>			
General Contractor Walsh Construction	General	6-23-83	\$ 5,985,000
<b>Assigned Prime Contractors</b>			
Global Fire Protec.	Sprinkler/ Plumbing	6-30-83	990,870
Economy Mech.	Heating	7-05-83	1,827,000
F. E. Moran	Ventilation	6-29-83	2,167,000
Maron Electric	Electrical	6-23-83	3,119,595
Curriculum Inc.	Carpet	7-05-83	<u>930,000</u>
<b>Total Bid Package #4 (original contracts)</b>			<u><b>\$15,019,465</b></u>

Source: OAG, compiled from CDB Documents

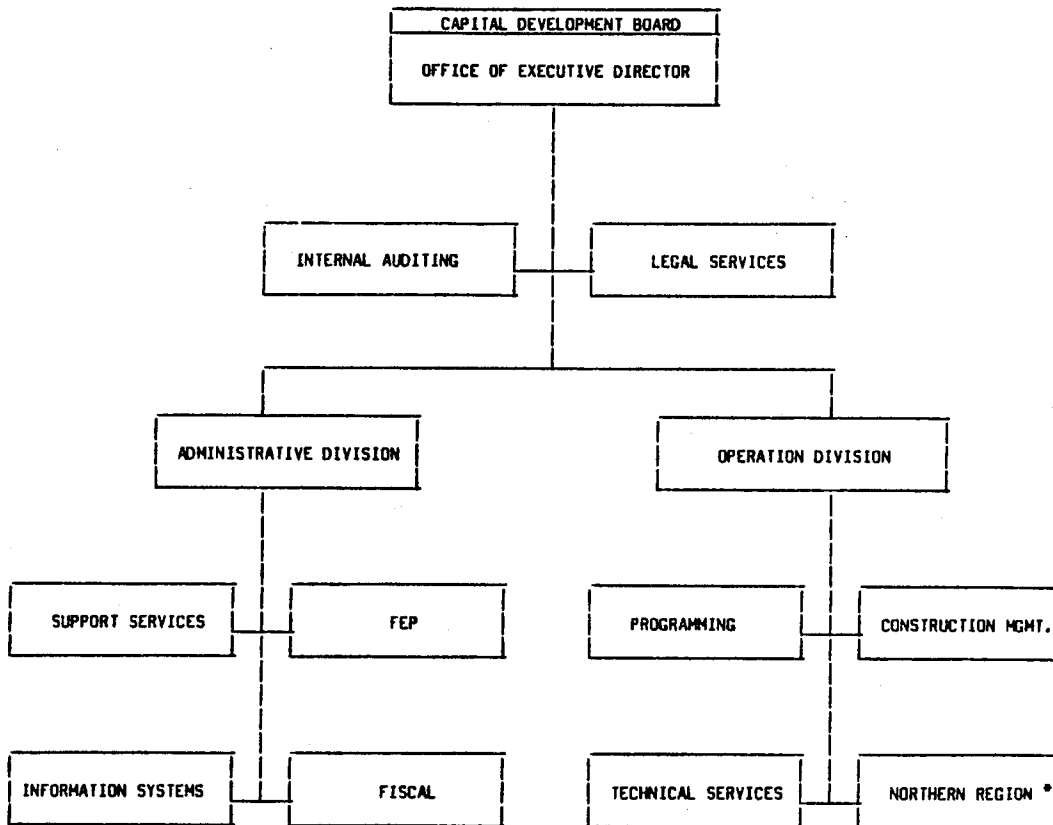
## CHAPTER III

### ORGANIZATION AND RESPONSIBILITY

The Capital Development Board (CDB) was responsible for planning, directing and coordinating all activities during the design and construction of the State of Illinois Center (SOIC). A Project Executive was assigned to ensure that all policies and procedures were properly executed to effectively manage and control construction activities. The organization structure of CDB is shown in Exhibits II and III.

#### Exhibit II

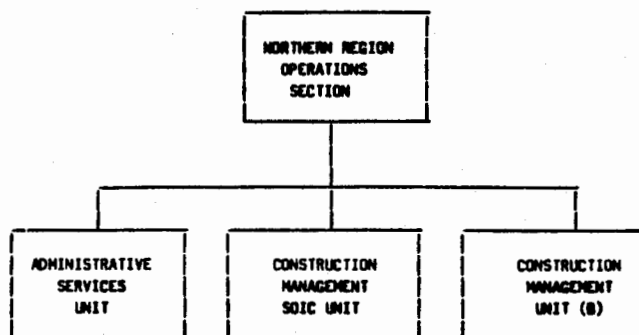
#### Organization Chart Capital Development Board



\* Chicago Operations

## Exhibit III

### Organization Chart Chicago Operations



CDB went outside its usual structure in managing the SOIC project. Consultants, rather than staff, were used for most early planning and estimating, and professional contractors were engaged to fulfill ongoing construction management responsibilities that are typically carried out in-house. For example, services usually performed by the CDB Technical Services section, were hired out for this project. These included research and design functions such as: evaluation of building codes and energy conservation; design criteria and evaluation; job problem resolution; and cost estimates.

The method of project management used for SOIC, phased construction, was also a departure from ordinary practices. Phased construction is a deliberate overlapping of the design and construction phases of a project in order to expedite use or occupancy. In other words, construction begins before the design is complete. It has been used on no more than 5% of CDB building projects. CDB attributed variations from standard procedures to the unusually large size of the project.

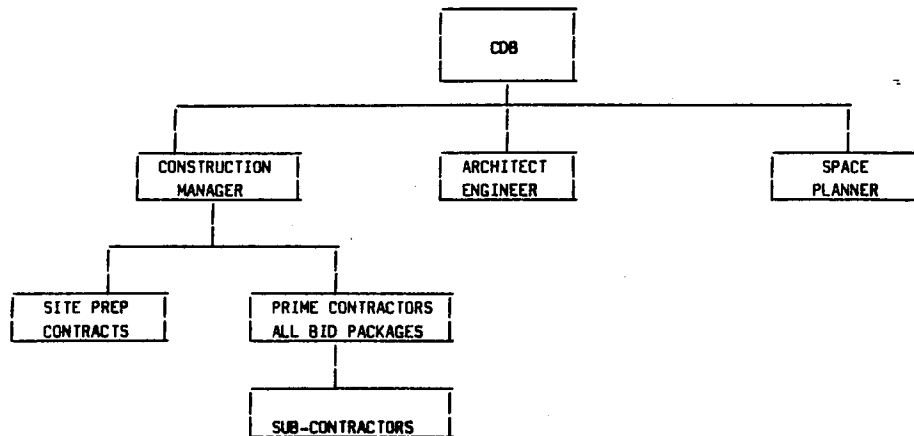
Specific responsibilities were assigned to the Architect/Engineer (A/E), the Construction Manager (CM), and the Space Planner in their written contracts and further delineated in the General Conditions, General Requirements and CDB Manuals, incorporated by reference into the contracts.

#### ORGANIZATION

CDB originally assigned project management responsibilities to Morse/Diesel including cost estimating, scheduling, supervising and coordinating the work of the major (prime) contractors engaged by CDB for the SOIC project. Murphy/Knight was to prepare design documents through all phases of the project and Vickrey/Ovresat/Awsumb (VOA) was to develop design documents for all tenant areas. This organization is depicted in Exhibit IV.

## Exhibit IV

### State of Illinois Center Organization August 6, 1979



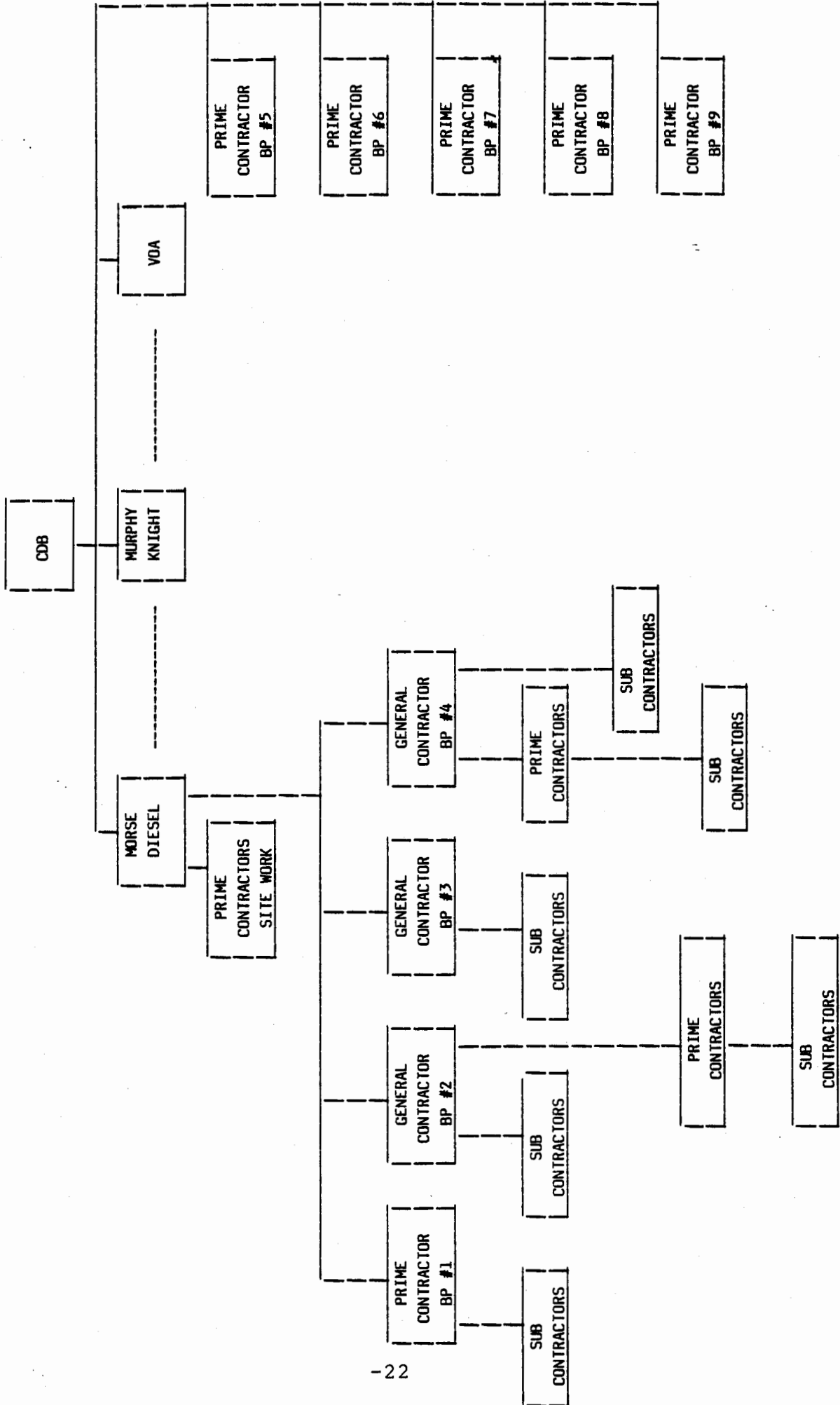
CDB had used a Construction Manager frequently from 1972 to 1976, but only once in the past ten years. CDB gave the following explanations for engaging a Construction Manager on the SOIC project. Most CDB projects are smaller. The use of a Construction Manager for government projects is not generally recommended, except for enormous projects where there are insufficient staff. They believed it would have been prohibitive to hire additional State employees and that a Construction Manager would provide the large number of staff needed for the SOIC project.

A reduction in Morse/Diesel's responsibilities occurred when CDB modified their contract on July 27, 1981. Supervision of prime contractors and certain reimbursables, including hoisting, were deleted from Morse/Diesel's contract. Furthermore, the number of staff was reduced to one superintendent and one assistant superintendent who were responsible for observing and monitoring the progress of construction. The responsibilities were assigned to General Contractors (GC). Morse/Diesel would supervise only the General and unassigned Prime Contractors. The resulting organization structure is shown in Exhibit V.

Another change occurred midway into the project when CDB's key staff person, the Project Executive, left the agency. The Project Executive and his assistant were the only CDB staff assigned in the expectation that Morse/Diesel would provide project management staff. However, when the overall structure changed, no change was made in what CDB was doing.

A further consequence of CDB's change in contracting strategy from one involving numerous prime contracts under the supervision of a Construction Manager to one involving General Contractors with assigned prime contractors is that Morse/Diesel lost some of their managerial control. The modification to

EXHIBIT V  
 STATE OF ILLINOIS CENTER ORGANIZATION  
 AFTER JULY 27, 1981



Morse/Diesel's contract shifted the supervisory responsibilities to the General Contractors. CDB did not enlarge its own role, and further removed itself from an active role in managing the project.

## **RESPONSIBILITIES ASSIGNED**

### **Architect/Engineer**

Responsibilities of the Architect/Engineer may be summarized under three headings: design phase, construction phase, and general services. These responsibilities are included in CDB's Architect/Engineer Manual and further documented in the professional service agreement between CDB and Murphy/Knight. Murphy/Knight was required to:

#### **Design Phase Services**

Prepare complete bidding documents for each separate prime construction contract.

Attend all pre-bid conferences with all prospective bidders.

Attend all bid openings, review bid proposals and make recommendations to CDB for the award of contracts.

#### **Construction Phase Services**

Monitor and acknowledge conformance of materials, finishes and workmanship to the quality standards.

Provide the services of site construction observer.

#### **General Services**

Review and recommend all contractor's change order submittals.

Expedite and coordinate substantial completion and final acceptance.

Assist CDB and the User Agency with an inspection of the work nine months after substantial completion to reveal any defects which will require corrective action under warranties.

Assist in pay request meetings; review and certify each contractors' application for payment.

Attend job/progress meetings.

Ensure conformance with contract documents.

These responsibilities were met with the following exceptions:

1) Although complete bidding documents were prepared for each separate prime construction contract, drawings, especially revisions, were not prepared promptly or according to schedule. Drawing delays subsequently caused overall project delays. Reasons given for the late drawings were: a hold on drawings issued in response to market conditions; and understaffing by the architect.

Understaffing occurred at the time agency changes required drawing revisions. The architect had more than enough staff in the beginning of the project during the early design phase. When agency changes to their interior spaces were taking place however, only a minimal staff was left to complete the project. Original staff had been assigned to other projects. The number of Change Orders on this project was not unusual and should have been anticipated.

2) The Architect's construction site observer was not performing adequately. Therefore CDB lapsed that provision from the contract five months into bid package 4. The lack of this site representative created a gap in communications between the Architect and contractors, and delays in clarifying drawings and specifications. According to Walsh Construction, it became necessary to communicate indirectly through Morse/Diesel.

#### Recommendation Number 1

CDB should require professionals they engage to provide adequate performance and sufficient staff in compliance with their contracts.

#### CDB RESPONSE

...CDB does require that professionals under contract perform adequately and supply sufficient staff to meet project requirements.

#### AUDITORS' COMMENT

CDB misinterprets Walsh's statement. Clarifications had to be channelled through the Construction Manager rather than the A/E site observer.

3) Murphy/Knight did not, "Expedite and coordinate substantial completion and final acceptance," as required by CDB standards and their contract. This part of the contract closeout



procedure is used to establish whether contract terms have been met.

Upon receiving notification from Morse/Diesel that a contractor's work was substantially complete, Murphy/Knight was to conduct a preliminary inspection and prepare a punch list, i.e., a list of tasks to be completed before final acceptance. This was to be done within seven working days as required in the CDB State of Illinois Center General Requirements, Sec. 01700. This requirement was met less than 50% of the time.

If Murphy/Knight agreed that work was substantially complete after the preliminary inspection, they were to prepare a Certificate of Substantial Completion, containing:

- a. Date of substantial completion.
- b. Punch list of items to be completed or corrected.
- c. The time within which Contractor shall complete or correct work of listed items.
- d. Date and time CDB will assume possession of work or designated portion thereof.
- e. Responsibilities of Contractor for:
  1. Insurance
  2. Utilities
  3. Operation of mechanical, electrical and other systems
  4. Maintenance and cleaning
  5. Security
- f. Complete CDB's Form GWB in accordance with Contract Documents.
- g. Signatures of:
  1. Architect/Engineer.
  2. Contractor.
  3. CDB.
  4. Construction Manager.

According to the General Contractors, Murphy/Knight did not conduct preliminary inspections as required. Newberg/Paschen stated that Murphy/Knight inspected and prepared a punch list for ventilation work by Pullman Sheet Metal 18 months after receipt of Newberg/Paschen's punch list. Walsh Construction stated that the only punch list Murphy/Knight had completed was for carpeting work done by Curriculum, Inc. in bid package #4. Furthermore, Morse/Diesel stated that certain work areas, such as mechanical and electrical in bid package #2, were identified as substantially complete by the contractor and are yet to be inspected by Murphy/Knight.

On July 24, 1985, we requested from CDB copies of any Substantial Completion Forms completed to date. We received 82

forms, all for partial contracts, and only five of which had been approved by CDB. The information on the forms indicated that the Architect had inspected:

37 times within seven days of substantial completion;  
37 times not at all; and  
8 times undetermined due to missing dates.

Therefore, 45% of the inspections were not done according to the General Requirements. The inaccurate or incomplete monitoring of contract completion weakens managerial control.

The effect or consequence of the failure of the Architect to complete the required inspections in a timely manner and to expedite and coordinate substantial completion and final acceptance is to leave a substantial gap in the documented record of quality control procedures relating to the construction of SOIC.

#### **Recommendation Number 2**

CDB should adhere to their policies for monitoring contract completion and ensure that responsibilities they have delegated to professionals are carried out.

#### **CDB RESPONSE**

CDB agrees that the process of perfecting substantial completion forms was delayed. However, contrary to the auditors' conclusion, no gap in the documented record of quality control procedures exists. Inspections for substantial completion forms are not a quality control function. Furthermore, the perfection of substantial completion forms did not affect CDB's monitoring of contract completion or its managerial control. Actual performance of contractors was monitored and documented, not by the issuance of a single form, but by the monthly status reports of the Construction Manager; the Contractor's Affidavit and Sworn Statements (CASS forms), which were reviewed and verified by both the Construction Manager and Architect; and the direct observation of CDB's staff. The substantial completion form is primarily for the benefit of the contractor for it defines the contractor's continuing responsibilities for insurance, utilities, operation of mechanical, electrical and other systems, maintenance, cleaning and security. In an average project, the issuance and perfection of the substantial completion form is a self-policing process, because the contractor actively pursues the completion of the forms to relieve himself of the costs associated with these responsibilities. On the SOIC project, where by contract the owner was responsible for insurance and utilities from the beginning and the other responsibilities mentioned as the building was occupied, the importance of the substantial completion form was greatly diminished.

In regard to the auditors' comment that the mechanical work has not been inspected, it is obvious that the mechanical systems

have had a substantial amount of inspection and analysis as a result of the corrective work to the air conditioning system. The auditors certainly would agree that substantial completion forms should not be signed on the heating, ventilating and air conditioning until these systems function properly.

### **Construction Manager**

Responsibilities of the Construction Manager may be summarized as bidding, construction, and general services. These responsibilities are included in the Capital Development Board management standards for Architect/Engineers. They were adapted for and included in the Construction Manager's contract. In the various phases Morse/Diesel was required to:

#### **Bidding Phase Services**

Recommend a tentative grouping of contracts into bid packages.

Provide and update estimates in each design phase.

Schedule and conduct pre-bid conferences with all prospective bidders.

Assist CDB in prequalifying prospective contractors.

Attend all bid openings, review proposals and make recommendations for the award of contracts.

#### **Construction Phase Services**

Schedule, but not provide, the testing and inspection of the work under the contract documents.

Establish the master project construction schedule, monitor and update monthly as required to reflect the contractor's performance.

Maintain a full-time, on-site supervisory staff to coordinate, schedule and provide direction of the work and progress of all contractors.

Review work for conformity with contract documents.

#### **General Services**

Review and recommend contractors' proposals for change.

Process all requests for substantial completion and final acceptance.

Develop and maintain an information distribution system for monitoring project funds, contract status, change orders, and the detailed project schedule.

Hold regular job safety meetings.

Schedule and conduct monthly payment request meetings.

Schedule and conduct job/progress meetings at least monthly to be attended by the contractors, Architect/Engineer, CDB, and the User Agency.

These responsibilities were met with the following exceptions:

1) Morse/Diesel did establish the master project construction schedule as required by their contract and CDB standards. The master construction schedule provides an overall picture of the planning and sequencing of a project. The contract and standards require that the schedule be updated monthly as required to reflect the Contractor's performance.

The Construction Manager produced only ten out of a potential sixty-four schedule updates. The last master construction schedule prepared by Morse/Diesel was dated April 12, 1983. Walsh Construction solely prepared the master tenant construction schedule for Bid Package #4. By failing to enforce the construction manager's scheduling requirement, CDB paid for a service it did not receive.

2) Contractors' proposals for change were not always processed according to CDB standards. Verbal authorization for changes was given and work performed without CDB approval an estimated 15% of the time. This is discussed further in Chapter IV.

3) The Construction Manager stopped holding pay request meetings in November 1984, and payments were processed without the input of the General Contractors regarding their assigned Prime Contractors.

Pay request meetings were held monthly through November of 1984 by Morse/Diesel, as required by the CDB standard procedures. At these meetings, representatives from Morse/Diesel, Murphy/Knight, CDB and the Contractors discussed progress and mutually decided on the percentage of work completed, in order to determine the amount of a Contractor's payment. General Contractors were afforded some input regarding payment to their Assigned Contractors. These meetings provided control over payments to Contractors.

In November of 1984, Morse/Diesel began processing Contractor pay requests internally. General Contractors were not required to approve their Assigned Contractors' pay requests. Since pay request meetings were no longer held, the General Contractors had no input regarding the amount of payment to be

made to the contractors they were supervising. According to Walsh Construction, Morse/Diesel approved payments to assigned contractors contrary to Walsh's suggestion to hold up payments for incomplete work. CDB did not insist that pay request meetings be continued throughout the duration of the project, which consequently reduced control over payments to contractors.

4) Job progress meetings also ceased to be held by the Construction Manager from July 1984. Instead, the Construction Manager attended the meetings being held by the General Contractor for bid package #4, adding questions regarding bid packages #1, #2, and #3 to those discussed at the meetings.

### Recommendation Number 3

CDB should enforce all contract provisions. If services are not required or a contractor fails to perform adequately, the contract should be modified to reflect actual contractor performance.

### *CDB RESPONSE*

*CDB does enforce all contract provisions....CDB disputes the findings used as the basis for this recommendation.*

### Space Planner

CDB had no written procedures or standards for a Space Planner/Interior Designer. The standards that CDB applied were contained in their contract and required VOA to:

Prepare design development documents for all tenant areas.

Provide a tenant occupancy schedule.

Provide installation administration of the various furnishings and equipment contracts.

Report to CDB the results of meetings with tenant State agencies.

VOA complied with each of the standards.

VOA began the space planning work in 1979 for a building that did not begin to be occupied until the end of 1984.

VOA's original office layout was altered many times by changes in agency requirements and the abolition of certain agencies. After office layouts, stacking diagrams, and furniture orders were developed by VOA, they were submitted to Murphy/Knight, the Architect/Engineer, and CDB for comment. The Space

Planner also met with each agency to discuss the layout of their particular office. As each agency was satisfied that the layout of their office met their requirements, they signed approval.

Obtaining agency approvals of office space was a complicated process. VOA began the layouts in 1979. Approximately two years later they had received 44 approvals.

The length of time between the date on which office space was approved and the date on which agencies moved into SOIC contributed to the number of changes required. VOA developed the office layouts between 1980 and 1982, three to five years prior to when agencies moved into SOIC. Many changes occurred within these agencies in the interim. CDB had to address these changes before agencies could be moved. Of a sample of 201 Change Orders, 114 or 57% were user requested. These Change Orders amounted to \$1,197,125. Some examples are:

Change Order #103 Addition of new walls and doors, and removal of existing walls on 13th floor

Change Order #106 Removal of Room T14-19 (save door frame)

Change Order #107 Removal of stairs and substitution of ramp

If CDB would have contracted for space planning work at a later date some of these changes could have been avoided, because agency needs would have been incorporated into the original bid package.

#### Recommendation Number 4

For future projects, CDB should establish some benchmarks for the initiation of general and detailed interior design, to ensure that space plans are not prepared too early to be useful.

#### CDB RESPONSE

The timing of CDB's hiring of VOA as space planner and the preparation of the space plans was appropriate and in conformance with accepted industry practice. Bid documents for the tenant work were issued to potential bidders in February 1983, and this work was bid in April 1983. To meet this bidding schedule, office layouts of tenant agencies were required when they were prepared. If the space plans had been developed at a later date as suggested by the auditors, the bid date of the tenant work would have been needlessly delayed at a time when the bidding environment was extremely favorable. In addition, final completion of the tenant areas also would have been delayed. Since changes in the needs of tenant agencies have continued to occur up to the present, it is doubtful that delaying the development of space plans would have resulted in fewer changes. As previ-

ously pointed out by the auditors, and agreed to by CDB, the number of change orders on the SOIC project was not unusual. In anticipation of changing user needs, CDB bid the tenant work with unit prices, the contracting strategy being to add individual tenant needs by change order. The bidding of unit prices ensured that change orders for tenant changes would be competitively priced.

### General Contractors

Responsibilities of the General Contractors were included in the CDB State of Illinois Center general conditions and general requirements prepared by Morse/Diesel and Murphy/Knight. The two major General Contractors, Newberg/Paschen and Walsh Construction Company, were required to:

Maintain a full-time, on-site superintendent;

Coordinate work with other General Contractors in connection with the project;

Direct communications between the contractor and the Architect/Engineer or CDB through the Construction Manager;

Supervise, coordinate and expedite the Assigned Contractors' work (Contractors assigned to a General Contractor were listed in their contract);

Develop and maintain a project schedule for orderly completion of project work. Revise schedule monthly;

Schedule and give notice of all required inspections and testing;

Ensure all changes are approved by CDB as an approved change order or a written proceed order;

Notify the Construction Manager when the Contractor believes work is substantially complete;

Prepare application for progress payments;

Attend job safety meetings held by the Construction Manager;

Attend job-progress meetings; and

Provide periodic reporting of the work of all contractors.

They fulfilled their responsibilities with the following exceptions:

1) One of the General Contractors experienced difficulty in coordinating and expediting their assigned contractors' work. The same general procedures were used with both their sub-contractors and contractors assigned to them by CDB. However, only the assigned contractors failed to cooperate. The General Contractor felt this could be attributed to the fact that they did not control payments, so they had no enforcement powers over the assigned contractors.

#### Recommendation Number 5

CDB should allow their General Contractors to have more input to and control over the payment process.

#### CDB RESPONSE

CDB does not concur with Recommendation #5. Input to and control over the payment process by General Contractors is more than adequate and the assignment of contractors is consistent with the requirements of the Purchasing Act. Through 91% of the SOIC project, General Contractors had an opportunity each month to review and comment on the CASS forms of assigned contractors. If a General Contractor believed a CASS form of an assigned contractor was incorrect, the General Contractor was to inform CDB so that the proper corrective action could be taken. There is no evidence that the General Contractor identified in this finding ever informed CDB of a possible problem with an assigned contractor's CASS form. The fact that only one of the project's General Contractors experienced difficulties coordinating its assigned contractors' work indicated that such difficulties were caused by factors other than CDB's payment process.

#### AUDITORS' COMMENT

It is also true that 50% (1 of 2) of the general contractors with assigned primes encountered difficulties.

2) A construction project schedule was to be developed and updated monthly by each of the General Contractors for incorporation into the Master Schedule. The General Contractor for Bid Package #3 and #4 did so. Activities in progress were updated on their CPM system after job progress meetings. This automatically updated completion dates.

The schedule for Bid Package #2 was not updated monthly. Only six updates were prepared. A bar chart was used, and the Construction Manager had to request it to be revised four times during the project due to a lack of detail. Furthermore, the schedule did not include a sufficiently clear identification of project activity in order to monitor progress.



## Recommendation Number 6

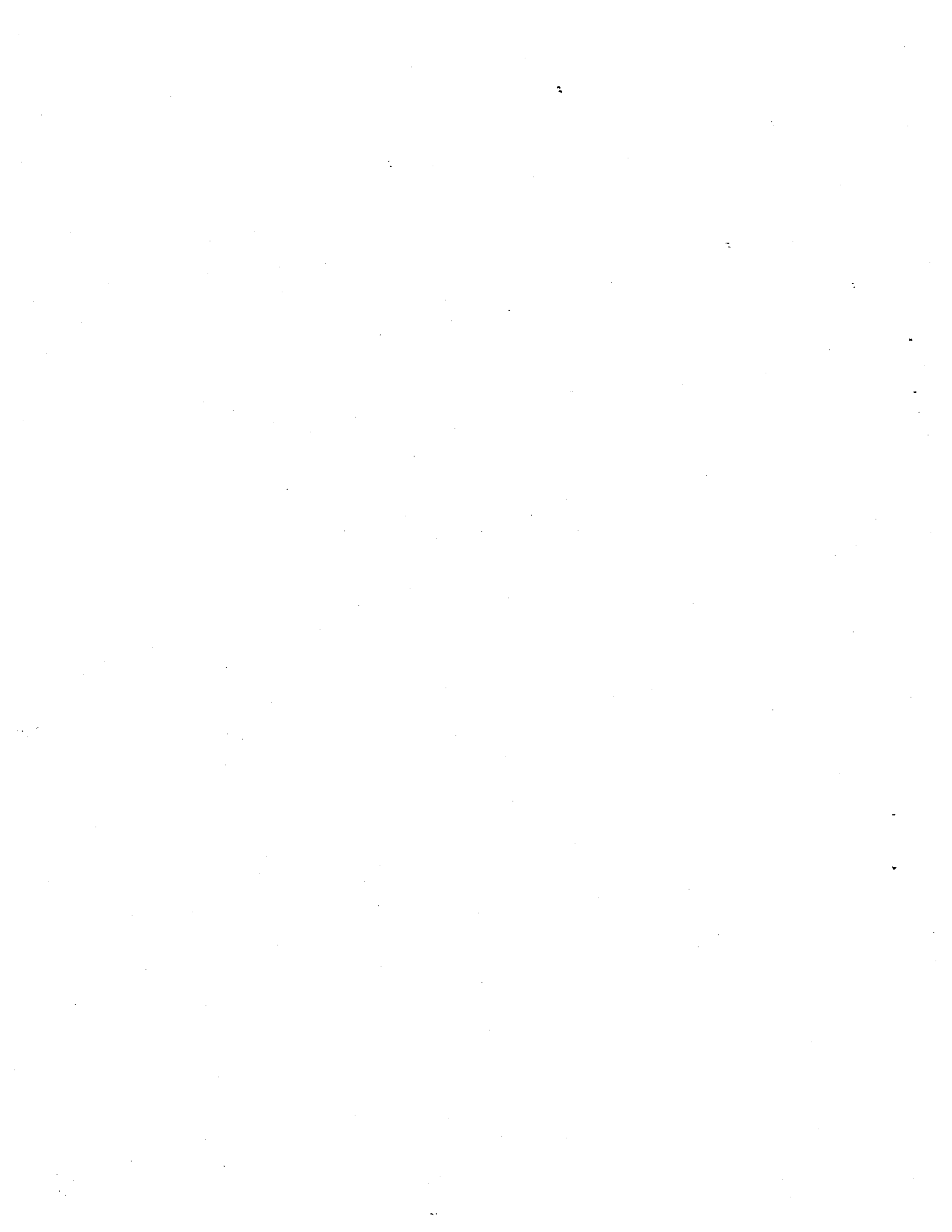
CDB should enforce their standards so that schedules can be used more effectively to monitor building projects.

### CDB RESPONSE

The facts contradict this finding. Bid Package #2 was completed on time, indicating that CDB's scheduling controls were enforced. A detailed construction project schedule was prepared by the General Contractor for Bid Package #2 and posted in the Contractor's on-site office. Updating of the schedule took place weekly at all Job Progress Meetings.

3) Move-in dates were revised frequently by the General Contractor in bid package #4 due to insufficient manpower. The General Contractor attributed the lack of manpower to scheduling difficulties caused by drawing delays and CDB holds on work.

4) The General Contractors verbally authorized Change Order work without CDB approval in violation of CDB standards in order to avoid delays.



## CHAPTER IV

### MONITORING AND CONTROLLING THE PROJECT

The Capital Development Board (CDB) has the managerial procedures necessary to effectively monitor and control construction projects, but we found that they did not uniformly and consistently follow these procedures in managing the construction of SOIC. We also found that CDB has an adequate internal audit function and acceptable standards for project construction, but we would note that the internal auditors restricted their attention principally to accounting and financial matters, and not to the management issues that are the focus of this audit report.

In accordance with the Internal Auditing Act (Ill.Rev. Stat.1983, ch. 127, par. 36.1 et seq.) CDB regularly performs project reviews. The CDB Internal Auditing staff conducts an ongoing compliance audit of SOIC. The compliance audit covers all project activity as shown in the Agency's accounting records. The purpose of the audits is to determine whether the agency has complied with applicable State statutes, CDB rules and procedures and Board resolutions.

During the SOIC construction project, the internal auditing staff reviewed professional service agreements, design selection and land acquisition, and developed financial summaries for each audit period. Audits were performed at least on an annual basis from June 1979 to June 1984. There were no major findings or recommendations in the audits performed.

Although CDB has well-defined procedures to control the construction of its building projects, we found that they did not always enforce these controls on the SOIC project.

CDB entered into three professional and 21 major construction contracts for the design and construction of SOIC. We identified deficiencies which related to the professional contracts. They concerned: professional standards; clear role definition; communication and coordination; and compliance with certain statutes. Deficiencies which related to construction contracts included liquidated damages and contract extensions not implemented. We found that delays to the project related to both professional and construction contracts as well as to outside influences.

#### LACK OF STANDARDS

Although CDB used a Construction Manager and Space Planner on this project, and a Construction Manager on another project, CDB standard procedures include only the responsibilities of an Architect/Engineer(A/E). Using the standards for an A/E, CDB prepared contracts for the Construction Manager and the Interior Design/Space Planner as well as the Architect/Engineer.

## Recommendation Number 7

CDB should develop standard procedures for a Construction Manager and a Space Planner if they intend to use them in future projects.

### CDB RESPONSE

*On the SOIC, contract standards for the services of the Construction Manager (CM) and Space Planner were not lacking. Such standards were specifically designed for the project and incorporated into the contracts for the CM and Space Planner. Based on past experience, CDB has found that services such as those provided by CMs and Space Planners cannot be standardized. The services of these professionals must be based on the requirements of each specific project.*

### LACK OF DEFINED ROLES

Throughout the management process in the construction of the State of Illinois Center, various roles of management and their interactions were not clearly defined by CDB. According to the former Project Executive, CDB prepared a chart of management responsibilities. However, both Murphy/Knight and Morse/Diesel stated that they were not aware of this chart. Murphy/Knight further stated they did not have a clear understanding of either CDB's or Morse/Diesel's responsibilities throughout the project. Murphy/Knight stated that CDB failed to inform them of the modification to Morse/Diesel's contract which reduced the responsibilities of the Construction Manager.

No clear cut project leadership was discernible. A Construction Manager does not have supervisory or enforcement power over the A/E, only the owner (CDB) does. The professionals have equal but different authority. We found little evidence that CDB intervened in problematic situations to provide effective supervisory control over the A/E.

Another confusion in roles dealt with the General Contractor's and Construction Manager's responsibilities. Neither Newberg/Paschen nor Walsh Construction had a clear understanding of Morse/Diesel's responsibilities. The General Contractors were awarded the responsibilities that were originally assigned to the Construction Manager. After the modification, the General Contractors were responsible for coordinating the work of contractors assigned to them, with Morse/Diesel responsible for coordinating the work of the General Contractors. While CDB attempted to ensure that all management activities were covered, this type of overlap in responsibilities caused confusion. Walsh reported the assigned contractors were confused because they received instructions from both a General Contractor and the Construction Manager and were not sure to whom they were reporting.

## COMMUNICATION AND COORDINATION

CDB did not facilitate good coordination between its professional contractors. This was a crucial matter because the fulfillment of each of the professionals' responsibilities was contingent upon the others' performance.

For example, the Construction Manager complained that late A/E drawings interfered with the preparation of budget estimates and delayed construction. However, the schedule for drawings which Morse/Diesel was following was never received by the A/E. It was a revised schedule prepared by Morse/Diesel at the request of CDB.

CDB did not ensure that the revised dates were communicated to the A/E and did not effectively enforce the schedule revisions to ensure that the professionals coordinated and fulfilled their responsibilities.

### Recommendation No. 8

In situations in which professional contractors have no authority, one over the other, CDB should provide the leadership to ensure that responsibilities are fulfilled through better communication and coordination.

### CDB RESPONSE

*CDB maintains that it provided leadership and facilitated coordination and communication between the professional contractors on the project. Samples of such leadership are documented throughout CDB's files. ...CDB believes that the criteria upon which the auditors base their recommendation are unsubstantiated.*

### WORK PERFORMED BEFORE CONTRACTS WERE SIGNED

All three of the SOIC contracts for professional services, Murphy/Knight, Morse/Diesel and Vickrey/Ovresat/Awsumb (VOA) were signed after the fact. The three firms submitted vouchers for payment of services performed before the contracts were accepted. These firms were paid for services that were performed during May, June and July of 1979. However their contracts were not signed until August 6, 1979.

According to Ill.Rev.Stat.1979, ch.15, par. 211., the law in effect at the time, "No voucher for payment for professional or artistic skills which is in excess of \$2500, may be approved by the Comptroller unless the contract for such services has been reduced to writing before such services are performed."

The Architect/Engineer was paid \$171,861 for the months of May, June and July of 1979. This amount was for design service fees at \$42,287 each month and project administration fees at \$15,000

each month. The first payment voucher for the Murphy/Knight Joint Venture was submitted August 20, 1979. The payment was for the period May 1, 1979 to August 1, 1979. The Professional Services Agreement Summary and Preparation Routing Form indicates this sequence of events:

A/E, selected	April 19, 1979
Contract drafted	July 16, 1979
Contract signed by Murphy/Knight	July 27, 1979
Contract signed by CDB Executive Director	August 6, 1979

Additionally, the Joint Venture agreement between C. F. Murphy and Lester B. Knight Associates was not made until May 21, 1979. Therefore, CDB paid Murphy/Knight for a 21-day period when the joint venture did not exist, and for a 98-day period before the SOIC contract was signed by all of the parties.

During the period when Murphy/Knight had no contract, with the approval of CDB, they subcontracted the services of a soil testing firm.

VOA, the Space Planner for the SOIC project, was paid \$99,996 for services rendered before a contract was signed. The first payment voucher for VOA was submitted on August 3, 1979. Their Professional Services Agreement and Preparation Routing Form indicates:

Space Planner Selected	April 19, 1979
Contract drafted	July 19, 1979
Contract signed by VOA	July 31, 1979
Contract signed by CDB Executive Director	August 6, 1979

VOA was paid for three months work performed prior to contracting. VOA had various responsibilities when they had no contract with CDB. In June of 1979, VOA circulated two surveys to all of the State agencies that were earmarked to move into SOIC.

Morse/Diesel, Construction Manager for the SOIC project, was paid \$45,000 for services rendered before a contract had been signed. Morse/Diesel submitted their first payment voucher in August of 1979.

The payment was for the period May 1, 1979 to July 31, 1979. The voucher requested \$45,000 for project administration fees at \$15,000 for each month. The "Professional Services Agreement Summary and Preparation Routing Form" indicates:

Construction Manager Selected	April 19, 1979
Contract drafted	July 19, 1979
Contract signed by Morse/Diesel	August 4, 1979
Contract signed by CDB Executive Director	August 6, 1979

Morse/Diesel was paid for three months work performed prior to contracting.

## Recommendation Number 9

CDB should complete the contracting process before work is begun on contracts in the future.

### CDB RESPONSE

The professional contractors began work on their contracts after they had been selected by the Board, but before their contracts had been formally executed. However, it should be stressed that the services performed were agreed to prior to the commencement of the contractors' work and these services were specified in the contracts of the professional firms. Furthermore, no payments were authorized by CDB until after the contracts were fully executed. The statute cited by the auditors in their finding was revised in 1982 to allow payment for such services if an affidavit is filed with the Comptroller and Auditor General. This revision was made because the original statute was found to be too stringent and not in agreement with common practice.

### CONSTRUCTION CONTRACTS

Construction contracts for the SOIC were awarded to the lowest responsible bidder, in compliance with the Purchasing Act. Work after site preparation was divided into Bid Packages. Phase construction was used for the SOIC project. This means that final plans or drawings are not fully developed for successive phases of work before current phases are complete. Although construction phases and bid packages do not necessarily stand in a one-to-one relationship, on this project phases and bid packages usually coincided.

The Bid Packages (BP) were:

Site Preparation	Barricade, demolition, and temporary electric work.
BP #1	Caissons, Excavation, and Earth Retention
BP #2	Superstructure: general construction, electrical, ventilation, heating, refrigeration and temperature control, plumbing and fire protection.
BP #3	General sitework and storefront.
BP #4	General, sprinklers/plumbing, heating, ventilation, electrical and carpet.
BP #5	Tunnel.
BP #6	General paving.

BP #7            Building security.  
BP #8            Building graphics.  
BP #9            Clark Street Sewer & Paving Repair.

### Liquidated Damages in Contracts

CDB entered into many contracts during the construction of the SOIC, only two of which contained liquidated damages clauses. Contracts with liquidated damages contain an amount agreed upon by the parties as a reasonable estimation of the damages owed to one in the event of a breach by the other. CDB utilized the liquidated damages clause to ensure promptness in the delivery of work.

National Wrecking Company, the demolition contractor in the site preparation bid package, had a contract that contained a liquidated damages clause that would pay CDB \$25,000 for each calendar day that their work was not substantially complete after the expiration of their contract time of 240 calendar days. National Wrecking Company received a Certificate of Substantial Completion within their contract time. Consequently, the liquidated damages clause in their contract was not applicable.

Newberg/Paschen, the General Contractor for Bid Package #2, had a contract that contained the following liquidated damages clause in Section 00300 of their contract:

LIQUIDATED DAMAGES: If the Contractor fails to substantially complete the work within the contract time he shall pay CDB \$5,000.00 for each calendar day completion is delayed beyond the contract time, including such extensions as CDB may grant in accordance with the General Conditions.

According to the contract, Newberg/Paschen was to complete their work within 960 consecutive calendar days from the date of their Authorization to Proceed notice of July 13, 1981. In May of 1982, they requested and received a 15-day extension to their original contract making their total contract time 975 days. In order for Newberg/Paschen to be considered finished within the contract time, CDB would have had to accept a certificate from the Architect/Engineer verifying that they were substantially complete with all of their work, and a "Punch List" of items not yet complete, before March 13, 1984.

The Contractor's Affidavit and Sworn Statement form (CASS) is used to determine the progress of the contractor and their subcontractors, it is also used as a basis for payment. On this form, the contractor states what percentage of work has been completed in accordance with the contract documents. In order for the CASS form to be valid, it must be signed by the Architect/Engineer. The CASS form for Newberg/Paschen dated the month of March 1984 indicates that they were almost finished with their



work. However, they were not issued a Certificate of Substantial Completion.

On May 29, 1984, the SOIC Project Executive evaluated Newberg/Paschen's performance and recommended that Newberg/Paschen's retainage be reduced from five percent to two and one-half percent, noting they had "performed admirably" on the SOIC project. The incomplete portions of their work were related to other bid packages and complete testing of the elevators. CDB records as of November 21, 1985, indicate that Newberg/Paschen had not received a Certificate of Substantial Completion.

If Newberg/Paschen had been granted a Certificate of Substantial Completion in March of 1984, liquidated damages would not be applicable. If Newberg/Paschen had been granted a Certificate of Substantial Completion on May 29, 1984, when the Project Executive evaluated them and the liquidated damages clause enforced at that time, they would have paid CDB \$385,000.

Had CDB issued Newberg/Paschen a Certificate of Substantial Completion at an earlier date, any damages could have more reasonably been assessed. If the contract work was not substantially complete, the liquidated damages clause in the CDB-Newberg/Paschen contract should have been enforced. CDB has yet to issue them a Certificate.

#### Contract Extensions

CDB did not effectively use their power to grant extensions to contractors whose work was not complete within the time frame specified in their contract. According to Section 4.12 of CDB's Documents for Construction for SOIC, "Extensions of the contract time may be made by CDB either during the performance of the work or at the end of the contract time." Contract time extensions "may be made for the delays which affect critical items on the construction schedule arising from unforeseeable causes beyond the control and without the fault or negligence of the contractor or of his subcontractors or suppliers." Although many of the contractors that worked on SOIC did not receive a Certificate of Substantial Completion before their contract time had expired, as of November 21, 1985, only two were granted contract time extensions by CDB. Furthermore, the two contractors that did receive the time extensions never received a certificate that stated that they were substantially complete with all of their work.

One of the most effective construction management tools is the timetable for completion, or the project schedule. When construction projects are awarded, a date of completion is specified. The date is the target for substantial completion and as such becomes a parameter on the project schedule. Any variations should be indicated by changing this date by granting a contract extension.

The lack of Contract Extensions or Certificates of Substantial Completion indicates an ineffective system of monitoring and evaluating contractor performance.

#### Recommendation Number 10

CDB should use Certificates of Substantial Completion and Contract Extensions to control the project schedule thus affording more stringent monitoring of contractor performance.

#### CDB RESPONSE

*CDB concurs with the auditors that the project schedule is an effective management tool. However, actual performance, and not the date written on a form, should be used as a measure of effectiveness. As previously discussed, the existence of substantial completion forms had no effect on the project's actual schedule. It also should be noted that the lack of Contract Extensions does not indicate an ineffective system of monitoring and evaluating contractor performance because such extensions are not issued unless required by the contractors and approved by CDB. The auditors disregard their own citation of "Section 4.12 of CDB's Documents for Construction for SOIC."*

#### AUDITORS' COMMENT

The lack of requests for extensions by contractors, even when they had exceeded their contract time, suggests there was no sense of urgency instilled to meet deadlines.

#### PROJECT DELAYS

The State of Illinois Center (SOIC) was not constructed in a timely manner. The project is at least two and one-half years overdue. This delay cost the State approximately \$6.3 million in rental cost due to the need of State agencies to extend leases for office space. According to the Construction Manager's contract, all work was scheduled for completion by December 1982, two and one half years prior to the official opening ceremony of the building. Work was not completed at the close of our fieldwork on September 30, 1985.

CDB identified the following as causes of delay:

- rebidding of Bid Package #1
- change in the earth retention system
- land acquisition delays
- user agency changes
- CTA delays

We also identified delays in the project. Our list includes some additional causes. The delays we identified can be divided into

two categories: those which affected the whole project and those which did not. Six delays fall into the former category. They include: land acquisition, late drawings from the Architect, rebidding of Bid Package #1, user agency demands, changes in the earth retention system, delay in procuring structural steel with a concurrent labor strike and a personnel hoist accident in which workers were killed.

The land acquisition process resulted in a four and one-half months delay to the project.

Drawings by the Architect/Engineer were late throughout the first four bid packages. Table 8 compares the dates drawings were due and the dates they were received for the various stages.

Table 8

LATE A/E DRAWINGS

<u>Design Phase</u>	<u>Drawings Due</u>	<u>Drawings Received</u>
Conceptual Design	8-01-79	8-28-79
Schematic Design	11-16-79	12-04-79
Design Development	1-01-80	3-31-80
Bid Package #1	3-01-80	7-08-80
60% Completion	5-01-80	8-29-80
Bid Package #2	8-15-80	12-09-80
Bid Package #3	7-15-82	10-01-82
Bid Package #4	4-15-81	4-13-83

SOURCE: Morse/Diesel Monthly Status Report

A nine month discrepancy exists between the date the drawings for bid packages one through four were due, and the date they were received. This delay is particularly detrimental because bid packages could not be released without architectural specifications to work from. Furthermore, the drawing delays also had a monetary effect on the project. The Construction Manager benefitted from any delays during the design phase of the project because their contract provided \$15,000 per month for any extensions.

As of April 8, 1985 three modifications had extended the contract, providing an increase of \$465,000.

Table 9

CONTRACT EXTENSIONS

	<u>Months Extended</u>	<u>Amount</u>
Modification #3	18	\$270,000
Modification #4	9	135,000
Modification #5	<u>4</u>	<u>60,000</u>
Total	31	\$465,000

Source: OAG Staff, Compiled from Construction Manager's Contract Modifications

Another delay affecting the completion date was the rebidding of Bid Package #1. Originally, the package was grouped together as one contract with bid solicitations sent to general contractors. However, the bids received far exceeded cost estimates. In order to realize estimated costs, the package was split into three contracts. The reorganization of bid package #1 resulted in a one-month delay in the project.

Changes in user agency demands resulted in an eight month delay. Space plans were to be developed by Vickrey/Ovresat/Awsumb (VOA) and presented to Murphy/Knight to prepare bid documents for presentation to Morse/Diesel on March 15, 1981. As of that date, VOA had received space plans from less than half of the agencies. Final acceptance by all agencies was not received until January of 1982. These changes rendered VOA's plan less useful. Examples of user changes leading to delay include:

- reinforcement of the library for Attorney General
- Legislative Leadership expansion on the 16th floor
- CDB hold on 3rd floor work due to replacing Public Aid with the Department of Commerce and Community Affairs

A five and one-half month delay occurred when the City of Chicago mandated an alternative earth retention system to protect surrounding streets. Originally, Schnabel Foundation Co. developed a system without interior bracing as a cost-saving measure. However, a city inspector reviewed the design and required internal bracing along one of the support lines.

The delivery of structural steel and a concurrent operating engineer strike delayed the project by two months.

A personnel hoist accident in December of 1981 killed five workers. A subsequent investigation prevented iron work on the project. A failure analysis firm was contracted by CDB to examine the causes of the accident. The delay to the project was approximately two months.

Other delays affected particular areas of construction, but may or may not have affected the whole project. Table 10 lists them by area and cause.

Table 10

DELAYS AFFECTING ISOLATED AREAS OF SOIC

<u>Area Delay</u>	<u>Cause of Delay</u>	<u>Length of Delay (in months)</u>
CTA Station	CTA Station	12
Skycap	Redesign of Steel	1.3
Subgrade	Slow to Dry	2
Pink Structural Steel	A/E Rejection	1.75
Escalator	Location Change	1.5
VAV Box	Procurement	3
F3 Fixture	Procurement	1
12th Floor	User Change	4-6
2nd and 3rd Floor	CDB Hold Due to User Change	1
Rose Colored Glass	A/E Rejection	2
Barricades	Permit Problems or Inadequate Work Force	1

Recommendation Number 11

CDB should review the problems that caused delays on the SOIC project with a view to revising or more strictly enforcing control procedures on future projects.

CDB RESPONSE

Schedule controls were implemented on the SOIC project. CDB concurs with the auditors that there were five separate factors resulting in a project delay of 21 months (land acquisition-4½ months; city mandated changes in earth retention system-5½ months; the strike-2 months; hoist accident-2 months; and user changes-8 months). It should be noted, however, that as described by the auditors in their narrative, these delays resulted from factors beyond CDB's control and we concur that they could not have been avoided using CDB's scheduling controls.

Though CDB concurs with the auditors that the rebidding of Bid Package #1 delayed the project by one month, this action saved the State approximately \$4 million.



## CHAPTER V

### COSTS OF THE SOIC PROJECT

The Capital Development Board (CDB) disclosed cost estimates for the State of Illinois Center (SOIC) in official press releases that did not reflect the total cost of the project. The cost estimates released were costs associated with the building's superstructure. Early CDB press releases indicated that the cost of SOIC would be approximately \$89 million. However, these figures excluded the cost of planning, land acquisition, demolition, equipment, design and construction management, tenant costs and furniture. With the addition of the nonconstruction costs, the estimated cost figure would have increased by approximately \$50,000,000.

#### COST ESTIMATES

In early press releases, cost estimates for the SOIC fluctuated widely. On August 2, 1978, in "News from the Governor's Office", SOIC was projected to cost approximately \$100 million. At that time there were no budget cost estimates. In April of 1979, in a CDB press release, the total construction cost for the building project was estimated at \$75 million. On September 21, 1979, in a CDB press release, the cost of SOIC was again estimated at \$100 million. In November 1980, a CDB press release reported that construction had begun on the "\$89.8 million State office building."

Morse/Diesel prepared the first target cost budget for SOIC in September of 1979. This budget indicated that the total cost of the office building would be \$108,737,000. Other target cost budgets were prepared in December of 1979. These budgets totaled \$87,610,000 and \$103,713,000. None of the target cost budgets included all costs to be associated with building the SOIC. The major costs excluded from Morse/Diesel's target cost budgets were for planning and land acquisition. These costs would be estimated in December by CDB at \$418,000 and \$20,000,000 respectively.

Also in December of 1979, CDB prepared a proposed project cost budget for the SOIC. It included the costs of land acquisition, planning, demolition, equipment, design and construction management, and tenant costs. The budget was for the amount of \$149,422,564 and indicates that a complete cost estimate had been calculated early in the project. The proposed project cost budget revealed the following cost estimates:

Planning	\$ 418,600
Land Acquisition	20,000,000
Demolition	4,500,000
Equipment	12,000,000
Constr. Mgr.	6,042,000
Arch./Eng.	4,409,804
Interior Design	1,658,160
Base Building	89,194,000*
Tenant Costs	<u>11,200,000</u>
<b>TOTAL:</b>	<b><u>\$ 149,422,564</u></b>

\* This figure shows that the base building cost for the SOIC was reported in estimates released to the public instead of the cost of the total project, thereby excluding a large amount of the total cost of SOIC from the estimates.

In 1980, Morse/Diesel calculated several construction target cost budgets for the State of Illinois Center. All were \$103,713,000 except one which totaled \$103,533,000. CDB prepared an all inclusive cost budget in 1981. This budget totaled \$176,709,845 and included the total estimated cost of the SOIC project.

The published and unpublished cost estimates for the State of Illinois Center are illustrated in the graph in Exhibit VI.

As shown in the graph, the published cost estimates for SOIC were not the same as the unpublished estimates calculated by CDB and its representatives.

In sum, a total project cost estimate for SOIC was prepared as early as 1979 by CDB. However, the cost of the building was reported at \$100 million or less in official press releases until 1982. Therefore, CDB did not accurately report the total cost of the SOIC project.

#### Recommendation Number 12

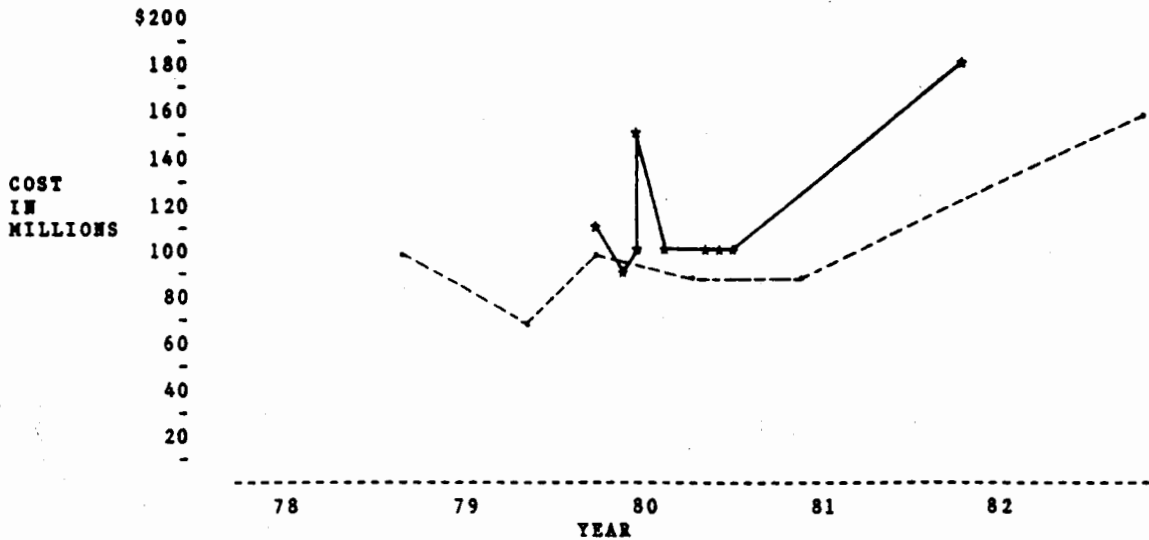
CDB should release accurate and total cost estimates to the public and the Legislature. The cost estimates released should reflect the total estimated cost of the project in detail.

#### CDB RESPONSE

In 1982, CDB reported the estimated cost of the SOIC as \$172 million. This estimate was all inclusive and has proven to be not only accurate, but \$4 million less than the 1981 cited by the auditors. CDB reiterates that the \$89 million figure released in February of 1980 concerned the base building, as is indicated in the cost breakdown exhibited by the auditors. It is a common construction industry practice to release the cost of the "base



**EXHIBIT VI  
COST ESTIMATES OF THE STATE OF ILLINOIS CENTER**



PRESS RELEASES -----  
 BUDGETS \_\_\_\_\_  
 SOURCE: PRESS RELEASES, TARGET COST BUDGETS, PROPOSED PROJECT BUDGETS

**PRESS RELEASES**

SOURCE	DATE	AMOUNT
News from the Governor's Office	08/02/78	\$100.0 million
CDB Press Release	04/19/79	\$ 75.0 million
CDB Press Release	09/21/79	\$100.0 million
CDB Press Release	03/11/80	\$ 89.8 million
CDB Press Release	11/05/80	\$ 89.8 million
News from the Governor's Office	09/01/82	\$172.0 million

**BUDGETS**

SOURCE	DATE	AMOUNT
Morse/Diesel Target Cost Budget	09/20/79	\$108,737,000
Morse/Diesel Target Cost Budget	11/14/79	\$ 87,610,000
Morse/Diesel Target Cost Budget	12/12/79	\$103,713,000
CDB Proposed Project Cost Budget	12/17/79	\$149,422,564
Morse/Diesel Target Cost Budget	01/09/80	\$103,713,000
Morse/Diesel Target Cost Budget	04/29/80	\$103,533,000
Morse/Diesel Target Cost Budget	05/08/80	\$103,713,000
Morse/Diesel Target Cost Budget	06/10/80	\$103,713,000
CDB Project Development Section	10/22/81	\$176,709,845

building" when announcing a major construction project. An estimate for the SOIC at this time, though accurate for the building's core and shell, could not have been all inclusive as the final costs of land acquisition were not known, and final design drawings had not yet been prepared.

There has been an inordinate amount of confusion over the release of the \$89 million dollar base building figure, but the auditors continually ignore throughout the audit the appropriations for the SOIC in the FY'81 Budget Book. The Budget Book is the single most authoritative listing of appropriations for capital projects. The book is a public document released not only to the General Assembly, but to the media. In the copy released in March 1980, one month after the \$89 million dollar base estimate figure, there is an appropriation request for "\$96.3 million to begin construction of the new State of Illinois Center in Chicago." The passage of this request during the Spring 1980 legislative session increased total appropriations for the SOIC to \$127.2 million. Therefore it is evident that the General Assembly was not misled to believe that the building's total cost would be \$89 million.

CDB also would like to point out that the figures presented in Exhibit VI are misleading. Exhibit VI compares estimates which clearly were for a portion of the project with estimates which were for the entire project. Furthermore, Exhibit VI does not include the figures contained in the Budget Books and appropriations.

#### AUDITORS' COMMENT

CDB states that Exhibit VI "compares estimates for a portion of the project" with budgets for the entire project. That is our point: the estimates were not for the entire project, but that was not made clear in press releases. Our attention was specifically directed to estimates by the Resolution.

#### ACTUAL COST

As of June 30, 1985, expenditures for the SOIC were \$168,628,560. The amount obligated for the project was \$171,323,433.

The obligated costs associated with the SOIC are broken down into several categories and include the following:

Pre-planning	\$	451,750
Planning		13,531,984
Land		20,942,839
Site Improv.		10,370,250
Construction		118,315,790
Utilities		298,247
Moveable Equipt.		6,647,896
Art		<u>764,677</u>
Total		<u>\$171,323,433</u>

### Pre-Planning

During the initial stages of the SOIC project several studies were undertaken to substantiate the need, identify locations, and estimate the costs and benefits of a new office building. The cost of these planning studies amounted to \$451,750 and included the following:

#### PRE-PLANNING COSTS

Alexander Grant & Co.	\$	78,000
Property Consultants		3,150
Hanscomb Assoc.		155,300
Ehrenkrantz Group		207,300
Larry Smith & Co.		<u>8,000</u>
TOTAL		<u>\$ 451,750</u>

### Site Acquisition

The Governor announced selection of the Sherman House Block as the site for the new building August 2, 1978. Acquisition of the land was a joint project between CDB and the City of Chicago, with the assistance of the City Corporation Counsel. A formal agreement between CDB and the Commercial District Development Commission (CDDC) of the City of Chicago provided for division of responsibilities and reimbursement by the State. CDB was responsible for appraisals of the entire site. The City would make initial offers for individual parcels, acquire and transfer title to CDB. CDB would make payment for acquisition of each parcel, and pay City attorney fees and relocation costs based on estimates by the Chicago Department of Planning. Acquisition was to be completed by January 1, 1980. The last parcel was acquired April 15, 1980. The Sherman House Block consisted of 12 parcels of land. The price expended for each parcel is depicted in the following table:

Table 11  
Sherman House Block

<u>Parcel 34(1-12)</u>	<u>Price</u>	<u>Property</u>
34-6	\$ 3,000,051	LaSalle Parking
34-9	398,534	Astor Hotel
34-1	850,017	Ada McKinley Fnd.
34-2,10,11	1,124,017	Parking Lot
34-5,7,8	13,200,014	Sherman House
34-4	546,637	Clark & Barlow
34-3	371,017	Glenview St. Bank
34-12	<u>154,017</u>	YMCA Parking Lot
<b>TOTAL</b>	<b>\$ <u>19,644,304</u></b>	

As Table 11 shows, the total cost for the 12 parcels on the Sherman House Block was \$19,644,304. Additional charges associated with acquiring the site, such as reimbursements to the City, title charges, and appraisals, brought the total purchase price to \$20,942,839.

#### Changes to Preliminary Design

After the Architect/Engineer firm of Murphy/Knight was selected for the SOIC project, they were required by CDB to develop at least two building design concepts for the new office facility.

Murphy/Knight developed eight schematic designs to be presented to CDB. Of the eight, three were chosen. These designs were further developed and presented to the Executive Director of CDB and the Governor for final design selection.

Several modifications were made to the original design in order to refine the design and cost of the building. The monetary effect of these changes were estimated by the Construction Manager. The design changes and monetary effects are shown in Table 12.

Table 12

## MONETARY EFFECTS OF CHANGES TO PRELIMINARY DESIGN

<u>Design Change</u>	<u>Addition</u>	<u>Reduction</u>
1. Sub-basement parking area added.	\$2,420,000	
2. Glass block walkways deleted.		(\$610,000)
3. Finish floor allowance reduced.		(37,000)
4. Water storage capacity reduced from 360,000 to 120,000 gallons.		(766,000)
5. Sheet metal deleted from return air risers.		(100,000)
6. Ice storage concept added to project.	400,000	
7. Area of floating floor for chiller reduced.		(63,000)
8. Caissons and excavation added for bid package #1.	74,000	
9. Round metal lath and plaster column cladding on interior column added.	258,000	
10. Caissons and reinforcing steel per bid package #1 added.	61,000	
11. Electrified deck revised from 5' cells on center to 10' on center.		(350,000)
12. Project design contingency reduced from \$2,785,000 to \$2,128,000		(657,000)
Total Additions	\$3,213,000	
Total Reductions		(\$2,583,000)
Total Net Effect of Changes to Preliminary Design	\$630,000	

SOURCE: Morse/Diesel, SOIC Master Log for Revisions, 8-15-80 and 9-9-80

Other preliminary design modifications verified by the A/E but not estimated by the Construction Manager in the Master Log for Project Revisions were:

1. Truck elevators reduced in size.
2. Emergency generator eliminated (emergency power provided by Commonwealth Edison was another line).
3. Thickness of foundation wall reduced in feasible areas.
4. Thickness of galvanizing reduced.
5. Granite piers reduced in size and amount.
6. Backpanels of spandrel glass changed from metal or concrete to drywall.
7. Round rather than rectangular ducts used.
8. Furniture & carpet quality downgraded.
9. Reductions in kitchens and doors.

#### Art In Architecture Costs

According to the Capital Development Board Act (Ill.Rev. Stat.1983, ch. 127, par. 783.01):

....The Capital Development Board shall set aside 1/2 of 1 percent of the amount authorized and appropriated for construction or reconstruction of each public building financed in whole or in part by State funds and generally accessible to and used by the public for purchase and placement of suitable works of art in such public buildings....

As of October 8, 1985, the SOIC Art in Architecture Budget was \$856,512.

**Table 13**  
**SOIC Art-in-Architecture Budget**

Total appropriations	\$172,207,600
Lapse	<u>          905,187</u>
	\$171,302,413
1/2 of 1% for Art	<u>                  x.005</u>
Art Budget	\$      856,512

Of the \$856,512 earmarked for the Art in Architecture Program, \$634,337 is being used to purchase a variety of artworks from

artists. (See Appendix F) The remaining \$222,175 was used to pay for the shipping and installation of the Dubuffet sculpture.

**Table 14  
Dubuffet Funding Breakdown**

Dubuffet Donations

Horwich Family	\$ 250,000
Graham Foundation	100,000
Anonymous Donor	<u>248,506</u>
Total	\$ 598,506

Dubuffet Expenses

Pace Art Gallery	\$ 585,000
Shipping	85,143
Installation	<u>150,538</u>
Total	\$ 820,681

Paid from Donations                    \$(598,506)

Paid from Art Program                 \$ 222,175

The process used to select artwork for the SOIC involved an art jury and a Fine Arts Review Committee. The art jury was responsible for making initial selections. These selections were later reviewed, then accepted or rejected by the Fine Arts Review Committee.

**Professional Services**

Selections for the professional services contracts made by the Board were announced April 19, 1979, by the Executive Director of CDB. The joint venture of Murphy/Knight was chosen as the Architect/Engineer. The approximate fee would be \$3.2 million, with design to start immediately. The Construction Manager designated was Morse/Diesel. Finally, the Chicago Firm of Vickrey/Ovresat/Awsumb Associates, Inc. (VOA) was chosen as Space Planner/Interior Designer for the SOIC. Estimated fee for their services was announced as \$330,000. All three contracts were signed August 6, 1979.

Morse/Diesel's original contract for \$5,823,900 was modified July 27, 1981 by a reduction of \$2,700,000. This followed the engagement of a General Contractor to assume some of Morse/Diesel's responsibilities.

Although VOA's estimated fee was announced as \$330,000, their actual contract was signed for \$1,658,160.

During the SOIC project, several modifications were made to professional service contracts. The contractor, service provided, original contract amount, number of modifications, dollar amount of modifications and contract amount to date are illustrated in Table 15.

**Table 15**  
**MODIFICATIONS TO PROFESSIONAL SERVICE CONTRACTS**

<u>Contractor</u>	<u>Service</u>	<u>Original Contract</u>	<u>No. of Modifications</u>	<u>Net Modifications</u>	<u>Contract Amount As Of 9-30-85</u>
Murphy/ Knight	Architect Engineer	\$3,983,979	12	\$2,364,530	\$ 6,348,509
Morse/ Diesel	Construc- tion Mgr.	5,823,900	7	(221,150)	5,602,750
VOA	Space Planner/ Interior Design	1,658,160	6	780	<u>1,658,940</u>
Total amount of Modified Contracts as of 10/31/85					<u>\$13,610,199</u>

Source: OAG Summary, Compiled from CDB Contract Status Reports  
FY75-FY85

### Contract Modifications

Contract Modifications are changes to the Professional Services Agreements in scope, dollar amount, or both.

#### Architect/Engineer

As of 10/31/85 there have been 12 Modifications to the A/E agreement. The net total amount is \$2,364,530. The first modification in the amount of \$453,233, was an increase to the design fee for adding commercial space. This change is dated 10/8/80 and approved 1/13/81.

The contract originally allowed for 20,750 square feet of commercial space, with the provision that the A/E would be compensated for any increased commercial space by 4.07% of the construction cost of the increase. The modest square foot allowance would provide space for food service and a concession stand. In contrast, their planning documents refer repeatedly to restaurants, shops, boutiques, a post office and other commercial space.



The design services fee in the A/E contract of \$1,734,859 is for the entire building's 928,209 net square feet. This amounts to \$1.87 per square foot. The additional design fee of \$453,233 for 118,513 square feet of commercial space amounts to \$3.82 per square foot. Since no additional square footage was created, in effect the \$3.82 is in addition to the \$1.87, for a total of \$5.64 per square foot to design the commercial space. We find this fee to be questionable and out of line with the cost of the rest of the building. Furthermore, the developer for the commercial space hired their own Architect. According to Murphy/Knight's Project Manager, Murphy/Knight's responsibilities were to review the designs for the commercial space to assure they blended with the decor.

### **Construction Manager**

As of 10/31/85, the Construction Manager contract had been modified 7 times. The negative changes total \$2,700,900; the positive changes \$2,479,750; for a negative modification total of \$221,150.

Modification #2 deleted \$2,700,900 from the contract. This amount included \$293,000 from the contract administration fee since a decision was made to use General Contractors who would be responsible for the Prime Contractors assigned to them. The greater part of the reduction was applied towards hoisting and other reimbursables. Morse/Diesel still retained the responsibilities of monitoring the General Contractors and maintaining a master construction schedule.

### **Interior Design/Space Planner**

There were six modifications to this contract, one negative (\$373,368) and five increases amounting to \$374,148 for a net total of \$780. The decrease in October 1982 eliminated all installation administration since Central Management Services would be responsible for this phase. However, in May 1984, VOA submitted a proposal to Central Management Services as requested to provide: "Contract Administration Services required for the delivery and installation of furniture for the new State of Illinois Center at Chicago". This proposal totaled \$193,950. In August 1984, with CMS agreeing to partially reimburse CDB, a modification to the contract for \$193,950 was posted.

### **Change Orders**

A Change Order is defined in Article 1.04 of the General Conditions as: "a written order to the Contractor authorized by the Capital Development Board issued after the execution of the Contract authorizing a change in the Work which causes an adjustment in the Contract." The General Conditions, a section of the Documents for Construction prepared for the SOIC project,

and incorporated into each SOIC contract by reference, specify authority, duties and responsibilities for the project.

CDB records as of 10-31-85, indicate 746 Change Orders had been issued over the life of the project, for a net total amount of \$5,283,192.

### Change Order Approval Process

According to CDB standards, Change Orders may be issued as:

1. Clarifications
2. Request for Proposal and Change Order (RFP/CO)
3. Proceed Orders
4. Emergencies

The first of these, Clarifications, are issued by the Architect/Engineer to the Construction Manager to render definition to the Contract Documents and are not intended to change the Contract sum or time.

The Request for Proposal and Change Order (RFP/CO) provides the most control because the RFP/CO must be prepared and approved prior to work being done. After it is decided that the extra work is needed the Construction Manager transmits design revisions to the Contractor in the form of a Request for Proposal and Change Order which is issued by the A/E after the approval of CDB. While this method is cumbersome, it affords excellent managerial control.

A faster method, which still maintains some control, utilizes Proceed Orders. These are issued to the Contractor by the Construction Manager, when authorized by CDB, to implement changes which are needed before design drawings or the RFP/CO can be initiated.

An emergency procedure is also provided wherein the contractor may act only to correct or restrict an emergency condition.

Article 9.02 of the General Conditions expressly forbids the performance of any proposed Change Order work by the Contractor unless he has an approved Change Order or a written Proceed Order from the Construction Manager, approved by CDB.

According to Morse/Diesel and Walsh Construction the RFP/CO method was only used for 5% of the Change Orders. The majority (80%) of the changes were processed as Proceed Orders which are permitted by CDB procedures.

Interviews with the SOIC Project Executive, the Construction Manager, and the General Contractors indicated that some changes were implemented without CDB approval. The Construction Manager estimated that 15% of the Change Orders were improperly

authorized. Some were authorized verbally by the Construction Manager, some by the General Contractor and some were performed at the Contractor's risk. Approval authority does not exist exclusive of CDB.

#### Recommendation Number 13

CDB should either enforce its Change Order procedures or reevaluate them to determine why they are being circumvented.

#### CDB RESPONSE

Change orders on the SOIC were properly approved. CDB's contract documents clearly stipulate that contractors shall not proceed with any change until a change order is properly authorized. Therefore, any and all changes performed by contractors without proper prior approval by CDB are performed at the contractors' risk. The auditors' statement that 15% of the change orders were improperly authorized has not been substantiated, even though CDB requested such substantiation.

#### AUDITORS' COMMENT

We repeat, 15% was an estimate given by the Construction Manager. The CDB Project Executive, the Construction Manager, and both General Contractors all agreed that some changes were verbally authorized without CDB approval.

#### Sample of Change Orders

We examined a sample of 509 Change orders. CDB classifies each Change Order according to reason for change and by the requestor. The Change Orders in our sample are grouped in Table 16 according to CDB's classification, together with the dollar amounts.

Table 16  
Change Order Sample

<u>Number</u>	<u>Reason</u>	<u>Amount</u>
71	A/E Errors/Omissions	\$ 396,450
170	User Request	2,107,932
121	Phase Construction	810,421
27	Undiscovered Conditions	339,792
5	User Funded	513,568
1	Time Extension	-0-
3	Substitution	73,664
22	Reimbursable	122,150
15	Soil Conditions	153,955
<u>435</u>		<u>\$4,517,932</u>
<u>74</u>	Credit from Contractor	<u>(1,086,142)</u>
509		\$3,431,790

Source: OAG Analysis from CDB's Central File as of July 1985

We question the classification of 70 of the Change Orders in our sample, coded under various reasons, which we believe should have been coded as A/E Errors or Omissions. They represent a total of \$539,930. Adding this amount to the \$396,450 that CDB had attributed to A/E errors results in a combined total of \$936,380.

An example of a Change Order classification we questioned involves granite pavers which were drawn as equal sized but had to be cut to match the lines of the paving pattern. This was classified as a User Request; however, it would be more logically categorized as an Architect/Engineer Error as the drawings had to be corrected.

The A/E is responsible for the cost of corrective work and repairs required as a result of errors, ambiguities or omissions arising from failure to exercise reasonable care and skill. The A/E's responsibility is the cost exceeding what CDB would have incurred had there been no errors, ambiguities or omissions.

In order to mitigate or diminish the damages, as contractually required, a Change Order Review Committee examines these Change Orders and assigns a valuation to each one. As a rule of thumb, omissions are charged at 10% of the Change Order and errors may range from 10% to 100% of the Change Order. These charges are accumulated until the end of the contract. CDB officials stated that if the total is reasonable, it is forgiven, negotiated or charged off against potential billings. This was affirmed by one of the architects who referred to the process of negotiation as a "gentlemen's agreement." However, once damages are mitigated, they become accounts receivable owed to the State and therefore are not negotiable.

While it may be common in business to forgive these charges, the standard for frugality with the taxpayers' money is higher than with one's own money. CDB has no express or necessarily implied statutory authority to forgive such debts. CDB has a duty to collect amounts owing to the State.

#### Recommendation Number 14

CDB should make every effort to collect amounts owed the State for A/E errors and omissions after the Change Order Review Committee has determined how much is owed on this and all future projects.

#### CDB RESPONSE

CDB's method for monitoring errors and omissions conforms to accepted industry practice. Charges for errors and omissions on the SOIC project will be assessed prior to closing out the A/E's contract.

CDB, though concurring with the auditors that A/E errors and omissions should be monitored and mitigated, disagrees with the auditors' recommendation. This recommendation runs counter to standard construction practice used by government and private industry and is based on a misunderstanding of CDB's change order review process. Contrary to the auditors' description, potential damages stemming from error and omission change orders are not mitigated, and do not become accounts receivable until after the appropriate CDB manager has reviewed the individual decisions of the Change Order Review Committee and given the A/E opportunity to respond. This action takes place prior to the final close out of the A/E's contract so that the cumulative effect of such change orders may be evaluated. If at this time it is determined that the level of errors and omissions is unreasonable, a charge is assessed the A/E. It is at this time that an account receivable is created and collected by CDB. Once charges are assessed, they are not forgiven.

The classification of Phased Construction should be used for minor adjustments to enable smooth interlocking of the

construction phases. Among the 70 Change Orders we contend were misclassified, 36 were coded by CDB as Phased Construction. The 36 changes total \$199,121. We believe the proper coding to be A/E Errors or Omissions.

Change Orders coded as User Request are usually generated by the end user. A portion of the Change Orders in this category resulted from changes in allotted space and needs that occurred after the Space Planner had finished work. Closer coordination of planning, design, needs and final allocation would have obviated some of these orders.

As an example, the Architect designed the building under the impression that a sole source would be used for communications. The communication contract was awarded by CMS to a different company, which caused changes totaling several hundred thousands of dollars. The original source would have operated the system on their premises. However, the awardee required special space and wiring in the building, thus increasing the cost substantially.

All Change Orders in the sample examined included proper signatures on the RFP form. In some cases the reasons given for change would indicate work was done prior to form preparation. The RFP form does not show whether a Proceed Order was issued, and signatures are not dated.

#### Recommendation Number 15

CDB should design the Change Order approval forms so as to indicate the date of the work performed and the signatory dates.

#### CDB RESPONSE

*The SOIC contracts stipulate that contractors shall not proceed with any change until a change order is properly approved. The date on which the work will be performed is not known when a change order is approved. The approval date of a change order is given on the bottom of the RFP/CO form.*

#### AUDITORS' COMMENT

Files indicate some work done prior to approval dates. When the date of work cannot be entered at the time of approval, provision should be made to enter it after the work is completed.

#### TOTAL COST OF FINANCING SOIC

The State of Illinois sells bonds according to expenditure needs during the fiscal year. SOIC financing required a number of bond sales at different interest rates spread over several years. According to the Capital Development Bond Act (Ill. Rev. Stat. 1983, ch. 127, par. 753 et seq.):

The State of Illinois is authorized to issue, sell and provide for the retirement of general obligation bonds of the State of Illinois...for the specific purpose of providing funds for the acquisition, development, construction, reconstruction, improvement, financing,...of capital facilities consisting of buildings, structures, and durable equipment...

SOIC was financed in accordance with the Capital Development Bond Act. General obligation bonds are not project specific, therefore they do not identify the project for which a particular bond is used. Bond information by date, term, rate and series is available but there is no project specific information. CDB correspondence indicated that:

Unless separate bond issues are sold for an individual project...there is no means by which the state can verify the principal and interest payment attributable to that project or portion of a project.

According to the Director of Administration of CDB, in order to attempt to verify the actual principal and interest associated with a specific bond issue, the amount in the Capital Development Bond Fund when a particular voucher was processed would have to be determined. Then, all succeeding bond issues would have to be identified, including those issues that were marketed at different rates of interest. Averages of principal and interest amounts would have to be identified, including those issues that were marketed at different rates of interest. Finally, averages of principal and interest amounts would have to be used to compute an estimated cost of the bond issue. This process would be possible but it is viewed as unreasonable and unreliable.

Consequently, there is no reliable method practiced to identify the total costs attributable to financing SOIC. Generally, the cost of money has increased during the project. The one exception to this was a 10-year issuance in February 1982 which, due to the short term, pays less interest if held open until maturity.

In September 1980, the Governor released \$96,282,600 for SOIC. During the same month 25 year serial bonds were sold at an average interest rate of 8.23%. If these bonds are not refinanced and are repaid as due, it will cost the State \$2070 for each \$1000 financed. Thus, the total cost for this release would approximate \$199,304,982. The cost of later bond issues depends on the interest rates available then.

In summary, the actual expenditures for the SOIC project as of November 28, 1985 had increased from the June 30, 1985 amount of \$168,628,560 to \$170,970,644, and obligations from \$171,323,433 to \$172,976,214. The CDB appropriation for SOIC has not increased but remains at \$172,207,600. The difference between the obligated and appropriated amounts was offset by additional sources of funding.

There were three additional sources of funding associated with SOIC. The additional funds used in conjunction with SOIC have increased slightly.

<u>Appropriated Funds*</u>	<u>June 1985</u>	<u>November 1985</u>
1. 001 Gen. Rev.	\$ 193,632	\$ 563,206
2. 834 INR	250,000	248,505
3. 617 CDB Trust Fund	1,120,204	1,181,001
617 CDB Trust Fund	<u>139,270</u>	<u>164,173</u>
	\$1,703,106	\$2,156,885

\*Note: Although identified on the report as appropriated funds, this includes some non-appropriated funds as well.

SOURCE: CDB Project Status Reports

The General Revenue Fund, 001, represents money from the Department of Central Management Services used for interior finishing and equipment. The second fund, 834, is the Institute of Natural Resources Special Projects Fund. This is donated money for Art in Architecture. Fund 617 is CDB's Contributory Trust Fund. Monies in the fund related to SOIC consist of Federal reimbursements for the CTA Station and insurance proceeds.

There were no cost overruns with regard to appropriations on the SOIC project, since appropriations have not been exceeded to date and never could be in any case. Contract amounts, however, through modifications and Change Orders, have increased by approximately \$7.4 million as of October 31, 1985.

#### FINAL ESTIMATE TO COMPLETE

On September 12 and again on October 19, 1985 we requested by letter to the Executive Director of CDB, their estimate of costs to complete the SOIC. We requested a breakdown to include but not be limited to:

- Pending Change Orders
- Pending Modifications
- Anticipated Change Orders
- Anticipated Modifications
- Any Other Contingencies

Their response did not include the breakdown of anticipated expenses that we requested. Nor was any available upon further inquiries. CDB claims they have no records with which to break down an estimate to complete the project.

They did state on September 18, 1985, that the total cost to complete, including all contingencies, was estimated to be an



amount that equalled the unexpended and obligated balances of funds appropriated for the project. Their November 20th letter states, "the unobligated balance will be utilized in completing this project." The unobligated balance on their accounting report, dated October 30, 1985, was \$357,444. This amount, plus the obligation shown of \$172,813,338 totals \$173,170,782.

Should the \$173,170,782 be sufficient to complete SOIC, it would exceed their original estimates. Allowing \$1,429,506 for Art and CTA costs not in the estimates, it would exceed their original budget estimate of \$149,422,564 by \$22,318,712 or approximately 15%. It would exceed their official press release to the public of \$75,000,000 in April of 1979 by \$96,741,276 or 129%.

Because there was no estimate included as to the effects of future contract modifications or Change Orders, it is difficult to evaluate the validity of the estimate CDB has provided. However, the Construction Manager's monthly report in November indicated \$2,363,532 in Anticipated Modifications for all construction contracts.

Therefore we cannot state with certainty that the unobligated amount of \$357,444 will be sufficient to close out the project.



## CHAPTER VI

### SUMMARY ANALYSIS OF BUILDING SATISFACTION AND MANAGEMENT RELATIONS

In this chapter we will assess the degree of satisfaction with the building as it reaches completion. This will include an analysis of building occupancy, summary results of our survey of State agencies in the building, a discussion of mechanical system problems, a report on the building's accessibility to the handicapped, and comparable costs of other downtown Chicago buildings. Finally, we will briefly summarize the overall management of the project.

#### BUILDING SATISFACTION

The State of Illinois Center (SOIC) was dedicated on May 6, 1985 with the Governor releasing a ten story red taffeta banner, proclaiming "A Building for the Year 2000". How well has the building met the expectations it engendered? We will attempt to address that question in this section.

Building occupancy was originally targeted for January 1983. The Governor moved into a building still under construction in November 1984. Other Agencies soon followed despite the fact that the building was not finished. We conducted a survey of the building's occupants to assess their satisfaction with the new quarters. A major problem proved to be the excessive heat in the building due to the malfunctioning air-cooling system.

Some of the changes to the original design altered the appearance of the building: specifically the substitution of blue and coral opaque glass for the lighter blue glass. Although most of SOIC is open to the public, certain areas in the Concourse are not accessible to the handicapped. As the cost of the building rose, certain amenities were reduced.

#### Designation For Occupancy

State agencies began to move into SOIC in early 1985, soon after the Governor and CDB. The designation of certain offices in SOIC as ready for occupancy was made by CDB. CDB projected a date when an area would be ready for occupancy. They advised the Department of Central Management Services (CMS) of the dates for specific areas, so CMS could use them when scheduling the relocation of State agencies.

Most Agencies were moved into areas of SOIC before those areas were issued a Certificate of Substantial Completion. According to Section 1.27 of CDB's Documents for the Construction of SOIC:

Substantial completion is a condition which occurs when CDB accepts the certification of the Architect/Engineer that construction is sufficiently complete in accordance with the Contract Documents so that the project or a designated portion thereof may be occupied or utilized for the use for which it is intended.

Using CDB's definition, no offices were substantially complete when Agencies were moved in. Furthermore, although approximately 2900 State employees were occupying SOIC during August 1985, CDB had still not granted Certificates of Substantial Completion for most contracts or mechanical systems.

On July 24, 1985, we requested from CDB copies of all Certificates of Substantial Completion granted to date. We received 82, none of which were for complete contracts. The A/E had signed 58. However, only five of the 82 Certificates of "partial" Substantial Completion, that CDB supplied to us on August 27, 1985, were signed by both the A/E and the CDB Project Executive. These signatures are necessary to validate the Certificate. The five certificates CDB signed are shown in Table 17.

Table 17  
CERTIFICATES OF SUBSTANTIAL COMPLETION SIGNED BY CDB

<u>Initiation Date</u>	<u>Contractor</u>	<u>Type of Work</u>
1-18-84	Newberg/Paschen (General)	Elevators No. 1 and 10- Gearless Machines Only
1-18-84	Newberg/Paschen	Elevator No. 13 (Service Elevator) Elevator Car, Hoistway Geared Machines, Controls
5-09-84	A.J. Lowe & Sons (Plmb./Fire Prot.)	Drain Piping at the SW areas of the 2nd and Concourse Floor
5-31-84	Pullman Sheet Metal (Ventilation)	17th Floor Mechanical Room, Sub- Basement Mechanical Room, Concourse and Ground Floor Air Handlers and Fan/Coil Units, All Duct and Grills
11-21-83	Pullman Sheet Metal	Air Handling Systems and 17th Floor Housing, Fans and Damper Sections

It is clear that Certificates of Substantial Completion were used for designated portions of contracts rather than full contracts. Therefore, it is questionable whether the 82 Certificates, even if accepted by CDB, would have been sufficient to justify designating the building as ready for occupancy.

Certain essential systems were not complete when State employees began occupying SOIC. Construction still in progress created an environment of dust and noise. The fire safety system was not complete. The heating, ventilation and air conditioning system was not fully installed. During the summer, indoor temperatures ranged in the mid to upper eighties, and in some areas frequently reached into the nineties.

If CDB had followed the standard procedure in section 1.27 of CDB's Standard Documents for the Construction of SOIC, State agencies would not have occupied SOIC before the building was substantially complete. CDB would not have recommended move-in dates to CMS before they accepted the A/E Certificate of Substantial Completion for designated areas in the building.

Furthermore, the General Requirements for SOIC contracts state that the contractors must obtain a Certificate of Occupancy as part of the substantial completion procedure. These Certificates are obtained from the City of Chicago. Because there is no State body to enforce codes, cities are obligated to incorporate standards that meet or exceed State law. The Certificates verify that the standards were met. CDB project officials were generally unaware of this requirement and did not believe that it had been applied on the project.

A further complication, related to occupancy, occurred on March 29, 1985. With the building 50% occupied, the City of Chicago filed suit in the Circuit Court to force closure of SOIC, alleging fire code violations were an immediate threat to the building occupants. In question were fire retardant walls to isolate construction from public areas and fire detection and sprinkler systems. It was charged that the fire detection and sprinkler systems were not completely installed, or were turned off.

Although the Attorney General claimed that sovereign immunity made CDB exempt from City codes, they worked over the weekend to eliminate the fire code violations. The matter was settled amicably with no restraining order issued and no ruling on the question of sovereign immunity.

#### Recommendation Number 16

CDB should follow their standards and guidelines for completion and occupancy.

#### *CDB RESPONSE*

*CDB does not concur with the auditors' conclusion that the SOIC was occupied prematurely. It is standard industry practice to occupy buildings in phases, and the phased completion and occupancy of the SOIC were indicated in early project schedules.*

Although all substantial completion forms may not have been officially executed, all areas occupied by user agencies were, in fact, substantially complete at time of occupancy. User agencies, like any tenant in a newly opened office building, were inconvenienced by contractors finishing their punch list items. CDB admits that problems with the air conditioning system as installed created uncomfortable temperatures in the building. The inconveniences suffered, however, are greatly diminished when the savings to the state realized by the phased move-in are considered.

**MATTER FOR CONSIDERATION BY THE GENERAL ASSEMBLY**

The Legislature may wish to consider providing for oversight of newly constructed State buildings where city laws are not applicable.

**Agency User Survey**

We conducted a survey of all State agencies located in SOIC to determine their degree of satisfaction and opinion of the efficiency of the new office space. Of the 39 agencies that responded, most (62%) felt the space met their specifications. Ten percent said their specifications were met partially or after adjustments were made. Eleven agencies (28%) felt that their offices did not meet their specifications.

Table 18

<u>OFFICES MEETING THE SPECIFICATIONS</u>			n=39
<u>Met</u>	<u>Partially Met</u>	<u>Did Not Meet</u>	
62%	10%	28%	

Source: OAG Survey

The survey inquired about the degree of readiness of offices for normal operations. Thirty-seven agencies responded as follows:

Table 19

<u>OFFICES' DEGREE OF READINESS FOR OPERATIONS</u>					n=37
	<u>0-49%</u>	<u>50-69%</u>	<u>70-99%</u>	<u>100%</u>	
Agencies Reporting	2	3	28	4	

Source: OAG Survey

Agencies reported a lack of readiness and unmet needs for the following reasons:

<u>Reasons Specified</u>	<u>Percentage Reporting</u>
temperature	58.9%
location of electrical outlets	48.7%
inadequate work space	35.9%
lack of water	28.2%
lack of doors	25.6%
inadequate lighting	23.1%
inadequate telephone system*	17.9%

\* Not under CDB control.

Four agencies reported the added expense of buying fans and water coolers to turn their offices into more workable environments for employees.

An equal number of agencies reported that efficiency was improved, and that efficiency was hampered by the move into SOIC. In each case they gave multiple reasons.

#### FACTORS THAT IMPROVED/HAMPERED EFFICIENCY

##### Improved

adequate space  
increased access to public  
and other State agencies  
atmosphere  
adequate filing/storage  
morale  
downtown location  
quiet environment  
layout

##### Hampered

temperature  
noise  
lack of security  
lack of doors  
lack of privacy  
telephone service  
uninvited visitors  
elevator failures  
layout  
equipment failures  
glare  
traffic  
morale  
inadequate lighting  
temperature/lighting system  
not on in off hours  
crowding

Source: OAG Survey

In summary, despite their reservations, approximately two-thirds of the agencies responding to our survey said their new offices met their specifications and contained adequate space.

#### **Mechanical System Problems**

The air conditioning and heating system designed and developed by the A/E has presented some major problems which are yet

to be solved and deserve some explanation. During the summer of 1985, the air conditioning system at SOIC was not fully operational. Office temperatures in some areas ranged from the mid to upper eighties and frequently reached the nineties. The Executive Directors of CDB and CMS addressed the subject of uncomfortable working conditions in a July 9, 1985, memorandum to the heads of all agencies housed in SOIC. The memorandum stated that when office temperatures exceeded ninety degrees, "Agency Directors may consider dismissing some employees from work for the remainder of the work day." The memo further stated that the air conditioning system is different from conventional systems which "further complicates the debugging process."

The basic design of the heating, ventilation and air conditioning system was developed by Lester B. Knight and Associates Inc., and installed by Economy Mechanical Industries. It consists of a compressor heat pump with ice bank thermal storage to provide cooling and most of the required heating. Additional heating is provided by lighting, people, and equipment in the SOIC interior. High voltage electrode boilers serve as a back-up to the heat pump if additional heating is necessary. The major system components are three refrigerant compressors, four condensers, eight 100,000 lb. ice banks, and pumping equipment.

The ice storage capability of the heating, ventilation and air conditioning system takes advantage of lower night electric rates to reduce the cost of operating the system. The ability to cool far below freezing allows the heat pump to make ice. Heat removed from the water to make ice is then available for heating SOIC during the winter. In summer this heat is ejected to the outdoors, and the ice water is used to cool the building. The ice storage system provides the capability of circulating throughout the building ice water made the previous night. This is designed to be more energy efficient than running high-horsepowered refrigeration compressors during the day when electric rates are higher and in greater demand.

The air conditioning system was not fully operational and could not keep SOIC cool during the hot summer months of 1985. The malfunctions of the system are expected to be remedied before the next cooling season. Repairing the system will require additional costs that were not anticipated by CDB.

#### Recommendation Number 17

CDB should not bear any of the additional costs required to make the system perform in a "serviceable, fully and properly functioning" manner as called for in the contract bid specifications.



## CDB RESPONSE

CDB's Executive Director has publicly stated since early last summer that CDB will not pay for any additional costs required to make the heating and air conditioning system function as was called for in contract plans and specifications. CDB maintains that the contractors are responsible for the effective operation of the system. CDB appreciates the auditors' recommendation concurring with the position CDB has always held.

### Accessibility To The Handicapped

Two areas of SOIC were not built in compliance with the Illinois Administrative Code and CDB's "Accessibility Standards Illustrated." According to the Facilities for the Handicapped Act (Ill.Rev.Stat.1983, ch. 111 1/2, par. 3704).

The Capital Development Board shall publish tentative standards of minimum requirements for facilities for the handicapped persons in public buildings.

CDB has published such requirements in "Accessibility Standards Illustrated" and the Illinois Administrative Code.

There are three violations of the Code and Standards that prevent access to handicapped persons in the following areas of SOIC:

- 1- seating in the auditorium
- 2- auditorium stage
- 3- public washrooms on the Concourse level

Handicapped persons with orthotics or prosthetics are not provided with adequate seating in the Auditorium on the Concourse level of SOIC because the seats are too narrow to accommodate them. The Code and Standards require a minimum of six seats at least two feet wide be available for people with orthotics or prosthetics. These seats shall be located on the aisle.

People in wheelchairs are not able to enter the stage and backstage areas of the Auditorium in SOIC on the Concourse level because there are no ramps leading to these areas. The Illinois Administrative Code ch. I, sec. 400.1870 and CDB's "Accessibility Standard Illustrated" ch. 16.7.1 states, "In places of assembly with fixed type seating, provisions shall be made for those people who are in wheelchairs....This includes ...stage, backstage areas,..."

People in wheelchairs are unable to enter public restrooms on the Concourse level of SOIC because the door opening is only 30" wide, rather than the required 32". The Illinois Administrative Code ch. I, sec. 400.232 and the CDB's "Accessibility

Standards Illustrated" ch. 2.32 state "A minimum clear opening width of 2'8" is required" for washroom entrance doors.

The lack of access to these areas for the handicapped is an unfortunate oversight.

According to the Facilities for the Handicapped Act (Ill.Rev.Stat.1983, ch. 111 $\frac{1}{2}$ , par. 3703):

Public buildings which lack facilities for the handicapped persons (a) create a substantial risk of death or injury with respect to handicapped persons and others both in normal conditions and in the event of fire, panic or other emergency and (b) impair the full enjoyment of public buildings by handicapped persons.

CDB has become aware of and is addressing these violations. As of February 10, 1986, none of these areas have satisfied the standards specified in the statutes.

#### Recommendation Number 18

CDB should arrange to correct the deficiencies so that at least six aisle seats should be provided in the Auditorium that are two feet wide. A ramp should be built in the Auditorium to facilitate clear access to the stage and backstage areas. Doors to public washrooms in the Concourse should be replaced with doors that permit a thirty-two inch wide opening.

#### CDB RESPONSE

The SOIC is one of the most accessible office buildings ever constructed in Illinois. This is demonstrated by literally thousands of items that were constructed in compliance with the accessibility standards. The combined square footage of the non-accessible areas identified by the auditors comprises approximately one-tenth of one percent of the building's total area. Thus, the SOIC is 99.9% accessible. Although this percentage is high, CDB will not be satisfied until the building is 100% accessible. It should be pointed out that CDB was aware of the three items cited prior to the issuance of this audit, and had already initiated corrective action. CDB began working with the architect to correct the items in the auditorium in August of 1985. The two washroom doors identified by the auditors were not constructed by CDB, but by the developer of the commercial space. On August 26, 1985, CDB informed the developer that the two doors did not meet accessibility standards and would need to be corrected. CDB is monitoring these three items to ensure that the proper corrective action is taken.

## Comparable Building Costs

We conducted a survey of local building costs in the Chicago downtown area. Exhibit VII compares the costs per gross square foot (GSF) and net square foot (NSF) with SOIC.

### EXHIBIT VII CONSTRUCTION COSTS FOR RECENTLY CONSTRUCTED BUILDINGS IN AND NEAR CHICAGO'S CENTRAL BUSINESS DISTRICT

Year Built/ <u>Building</u>	<u>Building Cost*</u>	<u>Approx. Gross Sq. Ft. Area</u>	<u>Net Useable</u>	<u>Est. Cost Per GSF</u>	<u>NSF</u>
1983					
The Associates Center	\$ 72,800,000	700,000	528,000	104	138
30 S. Wacker	135,000,000**	1,200,000	820,000	112	164
333 W. Wacker	100,000,000	900,000	742,406	111	135
525 W. Monroe	85,260,000	1,000,000	718,250	85	119
1984					
200 N. LaSalle One Financial Plaza	81,250,000	680,000	559,800	119	145
211 E. Ontario	118,400,000	1,000,000	877,500	118	135
	22,230,000	190,000	151,749	117	146
1985 (under con- struction)					
Boulevard Towers South	116,100,000**	900,000	775,190	129	150
200 W. Adams	60,751,000	763,000	605,200	79	100
State of Illinois Center	129,700,000***	1,193,613	906,669	109	143

\* Excludes cost of land, FF & E (moveable equipment) and utilities.

\*\* Costs computed from a price range.

\*\*\* Also excludes cost of Planning, Site and Art.

Because this audit was conducted before construction was complete, there are questions, such as actual energy efficiency, about which we could reach no conclusion.

#### OVERALL PROJECT MANAGEMENT

At this point in the report we would like to summarize the major findings and conclusions, and note some problems with the transition of the building to the user agency, CMS. Our conclu-

sions, based on extensive analysis, are organized under three headings: Planning Decisions, Financial Management, and Project Management.

### Planning Decisions

The early planning for the SOIC project was adequately done. Most key decisions were made by the Board. Choice of the Architect/Engineer and other professional contractors was made by the Board after staff committees did the groundwork. The only exception we noted was premature use of the Space Planner's services. The result of this was that much of the work had to be redone at additional cost. Choice of the design, considered by many to be the most controversial aspect of the building, was made by the Governor.

### Financial Management

Throughout the course of this complex project, CDB had internal budget figures that were reasonably accurate and stayed close to budget. However, CDB presented incomplete and misleading information to the public about the total cost of SOIC.

CDB managed to keep overall costs very close to their budgetary estimates. They used a twofold strategy that enabled them to do this: 1) by not committing firmly to most design aspects and specifications until each phase was bid, CDB was able to select from several design alternatives those items that were within or close to budget; and 2) by eliminating certain features, they would spend only what the budget allowed. For example, various furnishings in the building were downgraded because of cost considerations.

CDB did not establish the timeliness of substantial completion so that it could be determined if liquidated damages were applicable to those contracts which contained the clause.

CDB has failed to collect the charges associated with A/E Errors and Omissions, and has a longstanding practice of forgiving these charges. As stated in the CDB Internal Audit Program, the Agency should routinely identify Change Orders which were caused by an A/E error or omission. Once identified, they should determine if the Change Order was submitted to the Change Order Review Committee; and then place a lien on the A/E contract and file it with the CDB Accounting Unit.

### Project Management

Our conclusion is that CDB's management approach to the SOIC project was a passive, rather than an active one. This is evidenced by the fact that only two people were assigned to a project of this scope. We identified specific examples of CDB's passive approach.

1. CDB did not take the necessary actions to keep the project on or close to schedule. A case in point, delays in producing architectural drawings led to project completion delays, which in turn led to increased costs for State agencies for extending leases of \$6.3 million. Another example is the waste of much of the work of Vickrey/Ovresat/Awsumb. The long delays in completion required that the original space planning be redone one or more times. The long delays in completion also resulted in substantial increases in payments to the Architect/Engineer and the Construction Manager that would not have been incurred had the project remained closer to its original schedule.

2. CDB did not see that the Architect/Engineer conducted necessary inspections in a timely manner. This created a gap in the quality controls and also led to delays or failures to issue Certificates of Substantial Completion before the building was occupied.

3. CDB did not require that the Construction Manager update construction schedules as required.

4. CDB did not see that its procedures for processing Change Orders were followed, and in fact, may have been unaware that violations of their procedures were occurring.

5. The restructuring of roles and duties that occurred when the Construction Manager's duties were changed led to confusion among the contractors and a lack of clarity about lines of reporting. CDB did little to reduce the confusion and clarify responsibilities.

6. With CDB's approval, many tenants were moved in before the construction was completed. Furthermore, CDB has not worked out a smooth and effective transition with CMS.

#### Management Relations with the User Agency

As administrator of all State buildings, CMS is designated the User Agency of SOIC. CDB and CMS did not work out a method for transferring responsibility for SOIC and for the building's specific operating systems and components that was acceptable to both parties.

There is considerable disagreement over who is responsible for the building systems. A CMS spokesman maintained in August 1985 and again in September that they had not accepted responsibility for the elevator, electrical system, telephone room, sprinklers and fire safety system, or the carpeting. He further stated that there "is no procedure to accept floor space," and that, "Acceptance and occupancy are not necessarily related."

This is in sharp contrast to CDB's position that once space is used, it becomes CMS's responsibility. Furthermore, CDB claims it can unilaterally sign acceptance of mechanical systems as an

agent for CMS on Certificates of Substantial Completion, thus transferring responsibility to CMS. There is a Guarantee/Warranty Bond attached to the Certificate. These warranties begin on the Certificate date and the user (CMS) becomes responsible for the warranty and maintenance contracts. CMS does not want to accept responsibility for systems that are incomplete or not functioning properly.

This has led to problems for State Agencies when they experience any system malfunctions. CDB maintenance will refer them to CMS for maintenance. But they will be referred back to CDB because CMS claims they have not accepted the system. If asked for help, the contractor answers that they do not maintain systems.

This situation can be attributed to the premature move into the building. It also leaves open the possibility for future contract disputes. When systems have been used prior to completion it will be hard to assess responsibility for malfunctioning equipment breakdowns.

In effect, CDB lost control of some aspects of the project. CDB has established a well-defined set of standard procedures that could effectively control the construction of a facility if the procedures are followed. CDB could have positively demonstrated their management and control of the SOIC project by strictly enforcing these standards and insisting that parties with management responsibilities meet their obligations and project goals. This did not happen consistently on the SOIC project.

Presented by Representative James F. Keane

WHEREAS, the Illinois General Assembly granted authorization to the Illinois Capital Development Board to build a new office facility in downtown Chicago; and

WHEREAS, pursuant to this authorization, the Capital Development Board contracted for the construction of the State of Illinois Center at 100 West Randolph Street in Chicago at an original estimated cost of approximately \$89 million; and

WHEREAS, published estimates of the cost of the new building have risen to \$172 million and may go higher; and

WHEREAS, the final cost to the taxpayers of retiring the Capital Development Bonds which were sold to fund the building may be as much as \$400 million;

THEREFORE BE IT RESOLVED that the Auditor General is directed to conduct a management audit of the activities of the Capital Development Board in managing and monitoring the construction of the State of Illinois Center. Specific emphasis should be on determining the reasons for the increases in final cost over the original estimates.

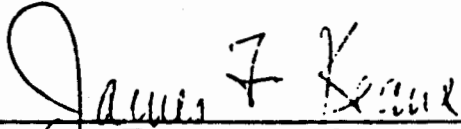
This audit shall include, but not be limited to, the following examinations and determinations:

1. Determine the total cost of the project, including planning, engineering and architectural work, land, site work, utilities, construction, equipment and art costs, and a summary of the most reliable estimates of additional expenditures needed to complete the project.
2. Determine the extent and purpose of changes in original designs and specifications which resulted in cost increases;
3. Determine the extent and adequacy of procedures and practices, including internal audit activity, employed by the Capital Development Board in monitoring and controlling the construction of the State of Illinois Center;
4. Determine and document the factors resulting in the delay of the building completion beyond the original estimated completion date; and
5. Determine whether the original published cost estimates were reasonably complete and whether current cost estimates are fairly presented in all material respects; and

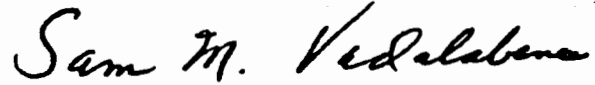
BE IT FURTHER RESOLVED that the Auditor General commence this

audit immediately and report any findings and recommendations as promptly as possible in accordance with the provisions of the Illinois State Auditing Act.

Adopted this 18th day of December, 1984.

  
\_\_\_\_\_

James F. Keane, Chairman



\_\_\_\_\_

Sam M. Vadalabene, Secretary



APPENDIX B

**Capital Development Board  
Resolution 75-38**

**Adopted December 11, 1975**

WHEREAS, the existing State of Illinois Building located at 160 North LaSalle Street in Chicago, Illinois meets less than 25% of the state's current office space needs within the downtown Chicago area;

WHEREAS, the existing State of Illinois Building located at 160 North LaSalle Street in Chicago, Illinois is an inefficient structure incapable of being substantially remodeled so as to meet the state's office space needs within the downtown Chicago area;

WHEREAS, the 107 offices of 67 agencies, boards, commissions, and elected officials of the State of Illinois are located at 53 different addresses within the downtown Chicago area.

WHEREAS, these inefficiencies and conditions create considerable difficulties for the people of Illinois having business with the State of Illinois in the downtown Chicago area;

WHEREAS, these inefficiencies and conditions reduce the work productivity and effectiveness of the over 6600 employees of the State of Illinois in the downtown Chicago area;

WHEREAS, the Legislature has appropriated monies for the planning of a new State of Illinois Office Building in the downtown Chicago area during the current fiscal year;

WHEREAS, the Capital Development Board is empowered by the Capital Development Board Act Sections 9.01 and 9.03 to provide for the acquisition, planning and construction of capital facilities, and for the acquisition and improvement of real property required in connection therewith, and further to direct disbursements from the Capital Development Bond Fund;

WHEREAS, the Capital Development Board recognizes that a project of this magnitude will have far reaching and profound impacts upon the economic, social, and environmental well being of those working for the state, doing business with it, and for those working, traveling and living within the general vicinity of the development;

AND WHEREAS, it is the policy of the Capital Development Board that any new public building constructed in downtown Chicago with state funds must not only serve the functions for which such buildings are designed, but also must serve to make the downtown a better place to live and work;

NOW THEREFORE BE IT RESOLVED, that the Capital Development Board does hereby direct and authorize the staff to publicly advertise the Proposals for alternate site location for a new State of Illinois Office Building in the downtown Chicago area;

BE IT FURTHER RESOLVED, that the Chicago downtown area be defined by Oak Street on the North, Canal Street on the West, Harrison Street on the South and Lake Michigan on the East.

BE IT FURTHER RESOLVED, that the new State of Illinois Office Building in the Chicago downtown area be known as the "State of Illinois Center at Chicago."

BE IT FURTHER RESOLVED, that the Capital Development Board recongizes the following goals as essential to the eventual site selection of the State of Illinois Center at Chicago:

- Provide modern, efficient office space for State agencies and employees
- Increase efficiency in the delivery of state services to Illinois citizens by consolidating the housing of State agencies in a rational pattern
- Maximize the accessibility of the State offices to citizens doing business with the State
- Provide an accessible and easily identifiable image for the State of Illinois in the most populous area of the State
- Provide a catalyst for private development in the surrounding area
- Create public spaces for cultural, recreational, and social experiences
- Improve the quality of the built environment
- Encourage multiple usage (i.e., a variety of on-site activities and therefore extended periods of use) to maximize the beneficial impacts of the center
- Meet each of the preceding goals within a framework of fiscal responsibility

BE IT FURTHER RESOLVED, that in order to evaluate the effectiveness of each proposal in meeting these goals, the Capital Development Board hereby adopts the following criteria:

#### **Accessibility**

The site must be easily accessible by mass transportation to State employees, to citizens doing business with the State, and the citizens who will be attracted by the public amenities and facilities of the Center.

Sites in close proximity to other existing government centers and activities will be given favorable consideration.

Only sites proposed in the downtown Chicago area (generally bounded by Oak on North, Canal on the West, Harrison on the South and Lake Michigan on the East) will be considered.

#### **Site Size**

The site must be of sufficient size to contain the new State offices, required parking and commercial and public space.

No minimum or maximum site size has been determined. While an optimal site size depends on a variety of factors (e.g. site configuration) it is estimated that 100,000 GSF or one full city block will be a desirable **minimum**. Site size and configuration must permit both operational efficiency and realization of programmatic goals.

### **Site Availability for Development**

The site must be available for purchase. Readiness for development and evidence that the owner is willing to sell will be a positive factor in site evaluation. Generally, a site with a few owners will be rated higher than a site with multiple owners and a site containing few or no structures will be rated higher than a site containing significant physical development.

### **Site Economy**

Acquisition and site preparation costs will be major considerations in evaluating site proposals. In evaluating the site, consideration will be given to the possibility that proposed sites may have fundamental differences resulting in either less or more expensive construction costs for essentially the same size building (i.e., site configuration the provision of utilities to the site, soil conditions, existing development and other such factors).

### **Economic Impact**

The site will be evaluated in terms of the positive and negative impacts its development may have on:

- a. neighboring existing commercial development
- b. possible future private sector investment
- c. local government tax revenues

### **Social and Environmental Impact**

Positive consideration will be given to sites on which the construction of the State of Illinois Center will serve as a catalyst for the social and environmental development of the surrounding area.

It should be possible to develop the site in a manner which lends itself to maximizing public benefits by allowing multiple uses, night use and a variety of public activities. Negative consideration will be given to sites whose development would result in the denigration or destruction of historically significant structures or landmarks.

Preferably the site should not be at a location experiencing higher noise levels than generally prevail in the downtown area.

The location of the site must be such that its development will not cause unmanageable vehicular and/or pedestrian congestion in the immediate vicinity, or otherwise disrupt existing healthy social and economic patterns.

**Identity**

The site must offer the opportunity to construct a facility which will have a strong and positive identity relative to its surroundings.

BE IT FURTHER RESOLVED, that in directing and authorizing the staff to prepare and publicly advertise and circulate a Request for Proposal for this project, and in adopting the previously stated goals and criteria, the Capital Development Board wishes to emphasize that it is presently concerned with the site selection and therefore, the general development potential of proposed sites. It is not concerned, at this time, with the development of specific architectural concepts.

## APPENDIX C

## SOIC Contracts

<u>Contractor</u>	<u>Type</u>	<u>Amount of Award</u>	<u>Adjusted Amount*</u>
Murphy/Knight	Architect/Engineer	\$ 3,983,979	6,348,509**
Morse/Diesel	Construction Manager	5,823,900	5,592,750**
Vickrey/Ovresat/Awsumb	Interior Designer	1,658,160	1,658,940**
Demolition Package			
Wil-Freds, Inc.	Barricade Carpentry	322,300	352,973***
Divane Bros.	Temporay electrical	191,000	191,000***
National Wrecking Co.	Demolition	3,597,000	3,586,621***
Bid Package #1			
Caisson Corp.	Caissons	746,00	872,170***
Schnabel Fndn. Co.	Earth Retention	4,298,400	3,973,676
Lindahl Bros.	Excavation	1,779,685	1,927,407***
Bid Package #2			
Newberg/Paschen JV	General Superstructure	63,977,000	64,856,182
Economy Mechanical Inds.	Heating, Refrig. & Temp. Control	6,829,000	6,885,434
Pullman Sheet Metal Works	Ventilation	3,750,600	3,926,911
A.J. Lowe & Son Inc.	Plumbing/Fire Protection	1,631,631	1,765,238
Commercial Light Co.	Electrical	3,480,646	3,627,666
Bid Package #3			
Walsh Construction Co.	General-Sitework/Storefront	16,998,000	17,499,410
Bid Package #4			
Walsh Construction Co.	General-Tenant	5,985,000	7,589,465
Economy Mechanical Inds.	Tenant-Htg., Refrig. & Temp. Cont.	1,827,000	1,894,715
F. E. Moran	Tenant-Ventilation	2,167,000	2,273,064
Global Wire Protection	Tenant-Plumbing & Fire Prot.	990,870	1,247,410
Maron Electric	Tenant Electrical	3,119,595	4,376,784
Curriculum Inc.	Tenant-Carpet	930,000	1,005,367

<u>Contractor</u>	<u>Type</u>	<u>Amount of Award</u>	<u>Adjusted Amount*</u>
Tunnel A. N. Ebony	General	\$ 769,270	783,931
Paving Reliable Contracting	General	233,593	238,011
Security Meade Electric Co.	Security	217,596	217,596
Clark Street Sewer Guerra Construction		247,000	247,000
	Total	<u>135,554,225</u>	<u>142,938,230</u>

\* SOURCE: Construction Manager Report 11-15-85  
 \*\* SOURCE: Professional Contracts and Modifications  
 \*\*\* Contract Closed Out

APPENDIX D

SOIC SELECTION COMMITTEES

Contracting Strategy Committee\*

Brian O'Connor, Chairman	Senior Project Manager
Randolph Thomas	Supervisor, Construction Mgt. Unit & NRO
Robert Pierce	Supervisor, Higher Education Unit & Construction Mgt. Section
Fred Garrott	Manager, Programming Section
Wayne Huckabee	Cost Engineer

Construction Manager Selection Committee\*

Joseph Simmons, Chairman	Supervisor, Technical Services Unit
Robert Pierce	Supervisor, Higher Education Unit & Construction Mgt. Section
Ray O'Brien	Manager NRO Section
Ralph Igo	Manager, Construction Mgt. Section
Wayne Huckabee	Cost Engineer

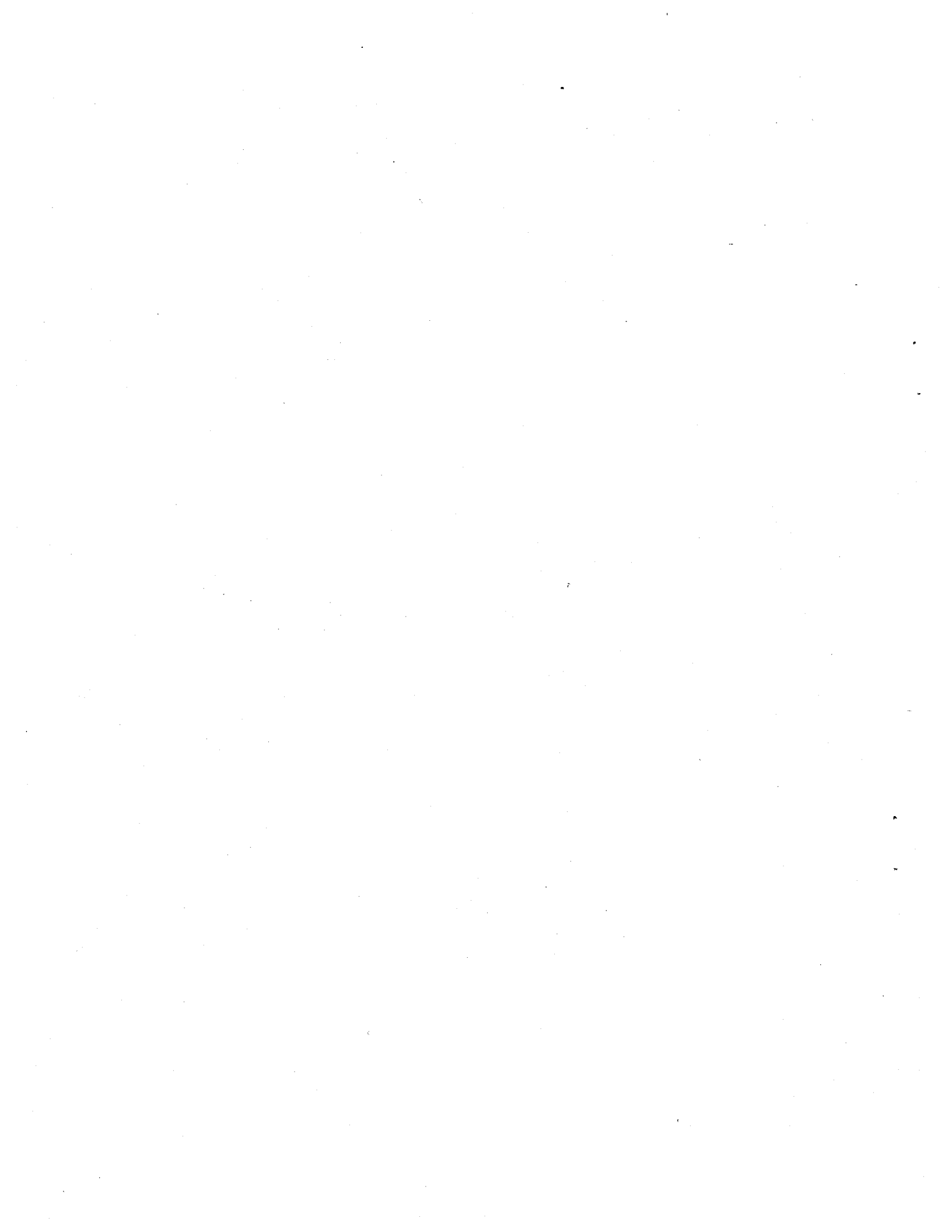
Architect/Engineer Selection Committee\*

Robert Pierce, Chairman	Supervisor, Higher Education Unit & Construction Mgt. Section
Ralph Igo	Manager, Construction Mgt. Section
Joseph Simmons	Supervisor, Technical Services Unit
Steve Nitekman	Senior Project Mnager
Ronald Spiegall	Project Manager II

Space Planner/Interior Designer Selection Committee\*

Fred Garrott, Chairman	Manager, Programming Section
Dan Buehler	Special Assistant to Executive Director
Maureen Tokar	Evaluating Architect II
Wayne Huckabee	Cost Engineer
Floyd Skloot	Supervisor, Programming Svc. Unit, Programming Section

\* Committees are CDB staff members. Titles are as of 7-1-78.





APPENDIX E

Members of the  
Fine Arts Review Committee

1. Edwin Bergman
2. Stanley Freehling
3. Esther Sparks
4. Bruce Sagan
5. Helmut Jahn
6. Bob Evans
7. Michael Dunbar

Art Jury Members

1. Evert Johnson
2. Bob Evans
3. Don Baum
4. Michael Dunbar



## APPENDIX F

ARTWORK PURCHASED FOR THE ILLINOIS COLLECTION  
FOR THE STATE OF ILLINOIS CENTERMAJOR WORKS

19 works Total \$382,000

ARTIST: Don Baum  
TITLE: "House of Earth Brain"  
MEDIA: Painted Sculpture  
PRICE: \$10,000

ARTIST: Roger Brown  
TITLE: "American Buffalo - An Imaginary View of Chicago From  
the Prairie"  
MEDIA: Painting, Oil on Canvas  
PRICE: \$22,000

ARTIST: Ruth Duckworth  
TITLE: "Clouds Over Illinois"  
MEDIA: Ceramic Wall Sculpture  
PRICE: \$30,000

ARTIST: Peter Fagan  
TITLE: Untitled to Date  
MEDIA: "Cast Bronze"  
PRICE: \$10,000

ARTIST: Roland Ginzel  
TITLE: Untitled to Date  
MEDIA: Painting on Plexiglas and Masonite  
PRICE: \$9,000

ARTIST: Harold Gregor  
TITLE: "Illinois Landscape No. 59"  
MEDIA: Painting  
PRICE: \$12,500

ARTIST: John Henry  
TITLE: Untitled to Date  
MEDIA: Painted Welded Steel Sculpture  
PRICE: \$90,000

ARTIST: Richard Hunt  
TITLE: "Illiois River Landscape"  
MEDIA: Welded Steel Sculpture  
PRICE: \$30,000

ARTIST: Miyoko Ito  
TITLE: "Tablized"  
MEDIA: Painting Oil on Canvas  
PRICE: \$4,000

ARTIST: Ellen Lanyon  
TITLE: Survival  
MEDIA: Painting, Oil on Canvas  
PRICE: \$11,500

APPENDIX F

ARTWORK PURCHASED FOR THE ILLINOIS COLLECTION  
FOR THE STATE OF ILLINOIS CENTER

ARTIST: Gladys Nilsson  
 TITLE: "Dayly Upsen Downs"  
 MEDIA: Painting, Water Color on Paper  
 PRICE: \$6,500

ARTIST: Jim Nutt  
 TITLE: "Not so Fast"  
 MEDIA: Painting - Acrylic on Wood/Acrylic on Masonite  
 PRICE: \$25,000

ARTIST: Ed Paschke  
 TITLE: "Chicaucus"  
 MEDIA: Painting, Oil on Canvas  
 PRICE: \$22,000

ARTIST: Jerry Peart  
 TITLE: "Jellyroll Man"  
 MEDIA: Welded Painted Aluminum Sculpture  
 PRICE: \$20,000

ARTIST: Daniel Smajo Ramirez  
 TITLE: "TCI: Variation #4 (Mi Hijo, Mi Hijo, ...)"  
 MEDIA: Painting, Acrylic on Canvas  
 PRICE: \$9,000

ARTIST: Barbara Rossi  
 TITLE: "Two Lights"  
 MEDIA: Acrylic on Masonite Painting  
 PRICE: \$6,000

ARTIST: Barry Tinsley  
 TITLE: Untitled to Date  
 MEDIA: Stainless Steel Sculpture  
 PRICE: \$20,000

ARTIST: Karl Wirsum  
 TITLE: "Public Squeaker No. 1"  
 MEDIA: Three Parts - Acrylic on Canvas Painting and Two Acrylic  
 on Wood Constructions  
 PRICE: \$14,500

ARTIST: Claire Zeisler  
 TITLE: Double Wall Triptych  
 MEDIA: Fiber  
 PRICE: \$30,000

APPENDIX F

ARTWORK PURCHASED FOR THE ILLINOIS COLLECTION  
FOR THE STATE OF ILLINOIS CENTER

WORKS PURCHASED THROUGH MEDIA COMPETITIONS

1.	Painting	31 Works Total \$ 67,780
2.	Photography	28 Works Total \$ 10,020
3.	Ceramics/Glass	6 Works Total \$ 10,025
4.	Fibers	8 Works Total \$ 8,750
5.	Printmaking	14 Works Total \$ 5,455
6.	Wrap Up	11 Works Total \$ 42,055
7.	Drawings	20 Works Total \$ 18,375
	TOTAL	118 Works Total \$162,460

MAJOR WORKS	19 Works Total \$382,000
WORKS PURCHASED THROUGH MEDIA COMPETITIONS	118 Works Total \$162,460
TOTAL WORKS PURCHASED	137 Works Total \$544,460



APPENDIX G

CHANGE ORDER REVIEW COMMITTEE (STANDING COMMITTEE)

Members

Wayne Huckabee, Chairman	Supervisor, Estimating Unit, Technical Services Section
Larry Spanberger	Supervisor, Evaluation Review Unit Section
Walter Claypool	Supervisor, Evaluation & Survey Unit A Section
Frank Bernstein	Supervisor, Unit A, Construction Management Section
Floyd Downs	Supervisor, Unit D, Construction Management Section





APPENDIX H  
Office of The Auditor General  
State of Illinois Center  
User Survey

Completed by: \_\_\_\_\_  
Title: \_\_\_\_\_  
Phone No: \_\_\_\_\_  
Date: \_\_\_\_\_  
Are you the original move coordinator?  
If not, who was: \_\_\_\_\_

1. Name of Agency \_\_\_\_\_ No. of Employees \_\_\_\_\_
2. Are there any divisions of your agency located at other offices in the Chicagoland area? Yes \_\_\_\_\_ No \_\_\_\_\_  
Division Names \_\_\_\_\_ Location \_\_\_\_\_  
Annual Rent \_\_\_\_\_ Sq. Ft. Occupied \_\_\_\_\_
3. Were they originally scheduled to be in the State of Illinois Center?  
Yes \_\_\_\_\_ No \_\_\_\_\_
4. When and how were you first contacted about a new State office building?  
\_\_\_\_\_
5. Did you request the space you would need? Yes \_\_\_\_\_ No \_\_\_\_\_ Specify:  

	Requested	Actual
(a) sq. ft.	_____	_____
(b) workstations	_____	_____
(c) type/use	_____	_____
(d) special needs	_____	_____
6. When were you first contacted by the space planner, Vickrey/Ovresat/  
Awsumb? \_\_\_\_\_/  
Mo. Yr.
7. What amount and kind of space were you first assigned in SOIC?  
\_\_\_\_\_
8. Were there subsequent changes? If so please list:  
\_\_\_\_\_  
\_\_\_\_\_
9. When were you first scheduled to move into the building? \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Mo. Day Yr.
10. When did you move into the building? \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Mo. Day Yr.
11. What factors determined your moving date? \_\_\_\_\_  
\_\_\_\_\_
12. To What degree was your space ready for normal operations? \_\_\_\_\_  
\_\_\_\_\_

13. To what extent were your agency needs met?

(a) space \_\_\_\_\_

(b) office layout \_\_\_\_\_

(c) furniture \_\_\_\_\_

14. What needs were not met and why?

\_\_\_\_\_  
\_\_\_\_\_

15. Is space convenient or inconvenient? Explain. \_\_\_\_\_

\_\_\_\_\_

16. Were your equipment needs met (i.e., placement and number of outlets, temperature controls, lighting, water supply)? Please explain and describe.

\_\_\_\_\_  
\_\_\_\_\_

17. Do offices meet your specifications? Yes \_\_\_ No \_\_\_

18. Is design and space suitable for your functions? Yes \_\_\_ No \_\_\_

19. How have the new offices improved your efficiency? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

20. How have the new offices hampered your efficiency? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

21. Is your environment conducive to productivity? Explain.

\_\_\_\_\_  
\_\_\_\_\_

22. Identify any cost savings realized in your present location.

\_\_\_\_\_

Please add any comments you may have.

APPENDIX I

OAG USER SURVEY RESULTS

Survey instrument was sent to 52 office locations in SOIC.

Thirty-nine (39) responses were received. Results were as follows.

1. Number of employees per agency ranged from 1 - 330

3. Agency Divisions scheduled for but not moved into SOIC: 5

5. & 17.

Offices met specifications	25	
Offices did not meet specifications	10	
Offices partially met specifications	4	(also #17)
	<u>39</u>	

8. Were there changes to the amount and kind of space assigned?

yes	22
no	7
didn't know	3
not answered	7
	<u>39</u>

11. Moving date determined by:

CMS	15
lease	1
completion	17
personal choice	1
didn't know	4
not answered	1
	<u>39</u>

12. Degree of readiness:

0 - 49%	2
50 - 69%	3
70 - 99%	28*
100%	4
not answered	2
	<u>39</u>

\*includes verbal responses such as "workable" and "minor problems"

13., 14. & 16.

Reasons specified for lack of readiness and unmet needs:

temperature	23
location of electrical outlets	19
inadequate work space	14
lack of water	11
lack of doors	10
inadequate lighting	9
inadequate telephone service	7

Note: Agencies gave multiple reasons

15. Space is convenient or inconvenient?		
	convenient	25
	inconvenient	6
	both	6
	not answered	2
		<u>39</u>
18. Is design and space suitable for functions?		
	yes	30
	no	8
	inconclusive	1
		<u>39</u>
19. Reasons given that improved efficiency:		
	adequate space	9
	increased access to public and other State agencies	6
	atmosphere	5
	adequate filing/storage	3
	morale	2
	layout	2
	downtown location	1
	quiet environment	1
20. Reasons given that hampered efficiency:		
	temperature	16
	noise	8
	lack of security	3
	lack of doors	3
	lack of privacy	3
	telephone service	2
	uninvited visitors	2
	elevator failures	2
	layout	2
	equipment failures	2
	glare	2
	traffic	1
	morale	1
	inadequate lighting	1
	temperature/light system not on in off hours	1
	crowding	1

Note: Agencies gave multiple reasons for improved and hampered efficiency

21. Is environment conducive to productivity?		
	yes	19
	no	9
	inconclusive	5
	not answered	6
		<u>39</u>
22. Cost savings		8
No cost savings		20
Increased cost		1
Not answered		10
		<u>39</u>

## APPENDIX J

### AGENCY RESPONSES AND COMMENTS

#### CDB COMMENT TO PAGE 1, paragraph 3

While CDB agrees that there has been a misunderstanding over the cost of the SOIC, it is clearly evident that CDB did not mislead the press or General Assembly regarding the fact that \$89 million was not the total estimated cost of the project. When the estimate of \$89 million was initially released in February 1980, CDB indicated that this estimate was for the construction of the project's base building, and at that time, it was reported in the press that \$89 million was not the project's total cost. The FY81 Illinois State Budget, released to the General Assembly and public in March 1980, included an appropriation request for "... \$96.3 million to begin construction of the new State of Illinois Center in Chicago." As shown by the auditors in Table I, the passage of this request during the Spring 1980 legislative session increased total appropriations for the SOIC to \$127.2 million. While the press release may have been misunderstood by some, the more authoritative and widely circulated information contained in the Budget Book was made public at the same time. CDB's use of core and shell estimates in early press releases was consistent with industry practice and the information released was accurate for that point in time and for that portion of the project.

#### CDB COMMENT TO PAGE 7

The April 1985 item in the auditors' chronology of the SOIC needs to be clarified. The Court refused to grant the City's petition for a temporary restraining order. This occurred in March 1985, not April 1985.

#### CDB COMMENT TO PAGE 9, paragraph 1

The Sherman House site was selected by the seven members of the Board. This site was chosen to foster the large scale, public and private North Loop redevelopment scheme. The SOIC has served as a catalyst for the subsequent rapid redevelopment of the North Loop.

#### CDB COMMENT TO PAGE 9, paragraph 2

CDB disagrees with the auditors' conclusions. All planning for the SOIC was done when required. There were no inconsistencies in the selection of professional contractors, as all three

contractors were selected by the Board in accordance with existing CDB Rules and procedures. Finally, while the auditors discuss the SOIC's goals, they never mention what these goals were. As specified in Board Resolution 75-38 (adopted December 1975), the goals of the SOIC were to:

- . Provide modern, efficient office space for State agencies and employees.
- . Increase efficiency in the delivery of State services to Illinois citizens by consolidating the housing of State agencies in a rational pattern.
- . Maximize the accessibility of the State offices to citizens doing business with the State.
- . Provide an accessible and easily identifiable image for the State of Illinois in Chicago.
- . Provide a catalyst for private development in the surrounding area.
- . Create public spaces for cultural, recreational and social experiences.
- . Improve the quality of the built environment.
- . Encourage multiple usage to maximize the beneficial impacts of the center.
- . Meet each of the preceding goals within a framework of fiscal responsibility.

All of these goals have been met.

#### CDB COMMENT TO PAGE 10

The auditors' assertion that CDB used inconsistent data when projecting the size of the SOIC and the building's occupancy levels is incorrect. In fact, Table 2 shows that the data used by CDB was quite consistent. The SOIC was originally designed for 54 agency office areas and the current configuration will accommodate more than the 2900 full-time employees currently housed in the building. Project occupancy levels for the building have not yet been reached because, as the auditors point out, agencies have changed and headcounts are lower than anticipated. Both of these factors are beyond the control of CDB.

It should also be noted that it was never planned that all departments of State government would be located in the SOIC.

CDB COMMENT TO PAGE 11, paragraph 3

The auditors discuss, but make no finding or recommendation pertaining to the site selection process. CDB concurs with the auditors that the selection was proper. In addition, it should be noted that the SOIC is a proven catalyst for the redevelopment of the surrounding downtown area. Since the selection of the Sherman House site, construction has begun on at least ten projects in the vicinity. The Transportation Building, 200 North LaSalle and the Builders Building are but a few of the numerous projects which have begun in the area.

AUDITORS' COMMENT

We did not find the process either proper or improper. We merely described the process.

CDB COMMENT TO PAGE 11, last paragraph

The final selection of an Architect was made by the Board at a public meeting, not by the Executive Director. A design competition for the SOIC was not held because such competitions are time consuming and expensive. To get worthwhile designs, architects must be paid for designs never used. The Board concurred with the staff's recommendation to rule out this option. In a design competition, the design selection is made by a jury consisting of a small number of members, the majority of whom must be design professionals. The use of a design competition would not have allowed general public input into the selection process.

CDB COMMENT TO PAGE 13, first paragraph

The auditors ignore that in a May 1978 comparative study of CDB's experience with construction managers, Morse/Diesel's overall performance on CDB projects was rated as good. In the course of CDB's staff review of construction management firms for the SOIC project, the relative strengths and weaknesses of each firm were evaluated. While the auditors discuss CDB's reservations with Morse/Diesel, they do not mention the recognized weaknesses of the other firms, nor do they mention Morse/Diesel's strengths. Such strengths included the firm's previous experience managing projects with CDB and its vast experience on private projects, including the Sears Tower. In addition, the firm had a Chicago office and knowledge of local market conditions.

AUDITORS' COMMENT

We did not ignore the Study. The Agency did not provide it to us until the Exit Conference after all fieldwork was completed.

CDB COMMENT TO PAGE 15, first paragraph

The method used to select the space planner was not different. The selection of the space planner, like the selections of other professionals on the project was made by the Board at a public meeting. The CDB staff committee which reviewed the qualifications of six finalists used the method involved to adjust for skewing in the spread of high and low scores of individual evaluators. This is a commonly used ranking procedure. The space planner selected for the SOIC is a well qualified, Chicago based firm.

CDB COMMENT TO PAGE 18

The auditors make no finding or recommendation pertaining to CDB's decision to award general contracts. Thus, the auditors conclude this decision was proper. CDB concurs with this conclusion. However, it should be noted that the decision to reduce the Construction Manager's duties primarily stemmed from changes in market conditions and CDB's belief that the change to general contractors would result in fewer prime contractors, thereby making the project easier to manager and reducing construction costs.

AUDITORS' COMMENT

The preceding information on selection of general contractors was merely descriptive: therefore no conclusion was drawn.

CDB COMMENT TO PAGE 20, paragraph 2

CDB's use of phased construction on the SOIC project was not a departure from ordinary practice for large projects. Phased construction has only been used on approximately 5% of CDB's projects because most CDB projects are not large enough to justify its use.

CDB COMMENT TO PAGE 21, last paragraph

The auditors' statement that CDB did not take an active role in managing the SOIC project is unfounded. The fact that CDB decided to reduce the Construction Manager's duties and reassign them to General Contractors clearly demonstrates that CDB was actively managing and controlling this project. When this change in contract strategy occurred, no change in CDB's operations was required because all responsibilities deleted from the Construction Manager's contract were transferred to the work bid on by the General Contractors. The two superintendents mentioned by the auditors constituted Morse/Diesel's field staff. These two positions were supported by Morse/Diesel's office personnel for



activities such as estimating. In addition to Morse/Diesel's two superintendents, the Architect's field personnel and the superintendents of the General Contractors were also assigned to the project site. When the Project Executive left CDB, a CDB project management unit supervisor, with 30 years of construction experience was named as a replacement. Throughout the project, the Project Executive and his full-time assistants were aided on an as needed basis by numerous members of CDB's staff. Additional full-time were assigned to the project as needed.

CDB COMMENT TO PAGE 24, paragraph 2

In any project, there is more design assistance in the early stages, and there are fewer architects and engineers once the structure is built and being occupied. The Architect assigned additional staff to the project as necessary. The Architect's staffing did not have a detrimental impact on the project.

CDB agrees with the auditors' assessment that the number of change orders on the project was not unusual. The number of change orders was anticipated by CDB.

CDB COMMENT TO PAGE 24, paragraph 3

The auditors' conclusion that CDB lapsed the Architect's site observer due to inadequate performance is incorrect. The time allotted in the Architect's contract for the site observer's services expired. CDB decided not to renew this service and pay additional fees, because an architect from Murphy/Knight's office was on the site daily and duplicated the observer's services. At the time this decision was made, the excavation, caisson and steel erection work had been completed, and thus, the need for the site observer's services was drastically reduced. No gap in communications occurred as a result of this decision because the architect remained at the job site. Therefore, Walsh Construction could have communicated directly with the architect whenever such communication was necessary. It also should be pointed out that there appears to be some confusion on the part of the auditors as to the responsibilities of the site observer. According to the standards of CDB and the American Institute of Architects, an architect, not the site observer, must clarify drawings and specifications.

AUDITORS' COMMENT

CDB misinterprets Walsh's statement. Clarifications had be channelled through the construction manager rather than the A/E site observer.

CDB RESPONSE TO RECOMMENDATION NUMBER 1, page 24

As stated in our previous responses, CDB does require that professionals under contract perform adequately and supply sufficient staff to meet project requirements.

CDB RESPONSE TO RECOMMENDATION NUMBER 2, page 26

CDB agrees that the process of perfecting substantial completion forms was delayed. However, contrary to the auditors' conclusion, no gap in the documented record of quality control procedures exists. Inspections for substantial completion forms are not a quality control function. Furthermore, the perfection of substantial completion forms did not affect CDB's monitoring of contract completion or its managerial control. Actual performance of contractors was monitored and documented, not by the issuance of a single form, but by the monthly status reported of the Construction Manager; the Contractor's Affidavit and Sworn Statements (CASS forms), which were reviewed and verified by both the Construction Manager and Architect; and the direct observation of CDB's staff. The substantial completion form is primarily for the benefit of the contractor for it defines the contractor's continuing responsibilities for insurance, utilities, operation of mechanical, electrical and other systems, maintenance, cleaning and security. In an average project, the issuance and perfection of the substantial completion form is a self-policing process, because the contractor actively pursues the completion of the forms to relieve himself of the costs associated with these responsibilities. On the SOIC project, where by contract the owner was responsible for insurance and utilities from the beginning and the other responsibilities mentioned as the building was occupied, the importance of the substantial completion form was greatly diminished.

In regard to the auditors' comment that the mechanical work has not been inspected, it is obvious that the mechanical systems have had a substantial amount of inspection and analysis as a result of the corrective work to the air conditioning system. The auditors certainly would agree that substantial completion forms should not be signed on the heating, ventilating and air conditioning until these systems function properly.

CDB COMMENT TO PAGE 28, (exception No. 1)

CDB did not pay for a service which was not received. Morse/Diesel monitored the project's schedule on a monthly basis and reported on the status of the schedule in its monthly reports. After Morse/Diesel's duties were reduced by modification in 1981, the firm was only required to prepare master project schedules, which incorporated the schedules obtained from the separate general contractors as well as from unassigned prime contracts

previously awarded. The master schedule was updated through April 23, 1984, not April 1983 as stated by the auditors. After April 1984, Morse/Diesel's contractual responsibility for preparing a master schedule was fulfilled because Newberg/Paschen and the unassigned prime contractors had substantially completed their work and Walsh became the only general contractor on the job. At this time, Walsh's schedule became the master construction schedule for the project.

#### AUDITORS' COMMENT

We requested all Master Construction schedules from CDB during our fieldwork. CDB showed us 10, with dates ranging from 3-12-80 to 4-12-83. Three weeks after the Exit Conference CDB offered two additional schedules with a final update of 4-23-84, and a total of 12 schedules over the life of the construction.

#### CDB COMMENT TO PAGE 28, (exception No. 2)

All change orders on the SOIC were approved by CDB. CDB's contract documents clearly stipulate that contractors shall not proceed with any change until a change order is properly authorized. Therefore, all change orders performed by a contractor without proper approval are performed at the contractor's risk. The auditors' never substantiated their claim that change orders were improperly processed 15% of the time, even though CDB requested a list of such change orders.

#### CDB COMMENT TO PAGE 29, (exception No. 3)

Monthly Pay Request Meetings were suspended with CDB's approval in November 1984 because at that time, the building was being occupied, over 91% of the project was completed and contractors were no longer submitting pay requests on a monthly basis. For these reasons, separate Monthly Pay Request meetings, in addition to Monthly Job Coordination Meetings, were not required and would have been a waste of time and resources. Control was not reduced over contractors' payments as all pay requests still had to be approved by Morse/Diesel, Murphy/Knight and CDB. The General Contractor never complained to the Project Executive about this change, nor did the General Contractor indicate that this change was affecting his control over contractor payments.

CDB emphatically denies the auditors' suggestion that payments were made for incomplete work. All payments were for work in place and were properly processed and certified by a licensed architect from Murphy/Knight's office. The auditors' suggestion is based solely on an unsubstantiated statement of one General Contractor.

CDB COMMENT TO PAGE 29, (exception No. 4)

Morse/Diesel's Job Progress Meetings did not cease, but were merged with those held for Bid Package #4 by Walsh Construction. As of July 1984, Walsh was the only General Contractor with a full staff working on the project. Bid Package #1 was complete; Bid package #2 was over 98% complete; and Walsh was the General Contractor for Bid Package #3. The Job Progress Meetings for the project were therefore merged to improve coordination and communication among the contractors remaining on the job.

CDB RESPONSE TO RECOMMENDATION NUMBER 3, page 29

CDB does enforce all contract provisions. As stated in our response to the preceding pages, CDB disputes the findings used as the basis for this recommendation.

CDB RESPONSE TO RECOMMENDATION NUMBER 4, page 30

The timing of CDB's hiring of VOA as space planner and the preparation of the space plans was appropriate and in conformance with accepted industry practice. Bid documents for the tenant work were issued to potential bidders in February 1983, and this work was bid in April 1983. To meet this bidding schedule, office layouts of tenant agencies were required when they were prepared. If the space plans had been developed at a later date as suggested by the auditors, the bid date of the tenant work would have been needlessly delayed at a time when the bidding environment was extremely favorable. In addition, final completion of the tenant areas also would have been delayed. Since changes in the needs of tenant agencies have continued to occur up to the present, it is doubtful that delaying the development of space plans would have resulted in fewer changes. As previously pointed out by the auditors, and agreed to by CDB, the number of change orders on the SOIC project was not unusual. In anticipation of changing user needs, CDB bid the tenant work with unit prices, the contracting strategy being to add individual tenant needs by change order. The bidding of unit prices ensured that change orders for tenant changes would be competitively priced.

CDB RESPONSE TO RECOMMENDATION NUMBER 5, page 32

CDB does not concur with Recommendation #5. Input to and control over the payment process by General Contractors is more than adequate and the assignment of contractors is consistent with the requirements of the Purchasing Act. Through 91% of the SOIC project, General Contractors had an opportunity each month to review and comment on the CASS forms of assigned contractors. If a General Contractor believed a CASS form of an assigned contractor was incorrect, the General Contractor was to inform CDB so

that the proper corrective action could be taken. There is no evidence that the General Contractor identified in this finding ever informed CDB of a possible problem with an assigned contractor's CASS form. The fact that only one of the project's General Contractors experienced difficulties coordinating its assigned contractors' work indicates that such difficulties were caused by factors other than CDB's payment process.

#### AUDITORS' COMMENT

It is also true that 50% (1 of 2) of the general contractors with assigned primes encountered difficulties.

#### CDB RESPONSE TO RECOMMENDATION NUMBER 6, page 33

The facts contradict this finding. Bid Package #2 was completed on time, indicating that CDB's scheduling controls were enforced. A detailed construction project schedule was prepared by the General Contractor for Bid Package #2 and posted in the Contractor's on-site office. Updating of the schedule took place weekly at all Job Progress Meetings.

#### CDB COMMENT TO PAGE 33, last paragraph

As previously stated, CDB's contract documents clearly stipulate that contractors shall not proceed with any change until a change order is properly authorized. Therefore, if a contractor performed a change based on the General Contractor's verbal authorization, such work was performed strictly at the contractor's risk.

#### CDB RESPONSE TO RECOMMENDATION NUMBER 7, page 36

On the SOIC, contract standards for the services of the Construction Manager (CM) and Space Planner were not lacking. Such standards were specifically designed for the project and incorporated into the contracts for the CM and Space Planner. Based on past experience, CDB has found that services such as those provided by CMS and Space Planners cannot be standardized. The services of these professionals must be based on the requirements of each specific project.

#### CDB COMMENT TO PAGE 36, paragraph 3

As confirmed by the auditors in Chapter III, the roles and responsibilities of the professional contractors in the management of the SOIC project were clearly defined in the contract

documents specifically prepared for the project. The chart mentioned by the auditors is irrelevant since it was used by CDB to formulate contracts, and all information on this chart was incorporated into the contracts. The auditors' assertion that CDB failed to inform the Architect of the changes in the Construction Manager's contract is grossly in error, as the Architect distributed the bid specifications which incorporated the Construction Manager's former duties into the contracts of the general contractors. Furthermore, the Architect has informed CDB that the firm had a clear understanding of its responsibilities and was aware of the modification to Morse/Diesel's contract.

#### AUDITORS' COMMENT

In two different interviews, both the Executive Vice President and the Project Manager, in the presence of five witnesses made the statement that they did not know that the modification to Morse/Diesel's contract had been made.

#### CDB COMMENT TO PAGE 36, paragraph 4

CDB provided project leadership and intervened in problematic situations throughout the course of this project. This fact is amply demonstrated by the numerous meetings CDB held with its professional contractors and by numerous memos and minutes of meetings in CDB's files.

#### CDB COMMENT TO PAGE 36, last paragraph

The roles of the General Contractors and their assigned prime contractors were clearly defined in their contract documents. Furthermore, the duties of the Construction Manager also were specified in each contractor's contract. If any contractor was confused about his responsibilities, all he needed to do was refer to his contract. During the course of the project, CDB's Project Manager informed Walsh Construction of this fact in a letter, a copy of which was given to the auditors. The auditors base their finding on unsubstantiated contractor complaints.

#### CDB COMMENT TO PAGE 37, paragraph 3

CDB did facilitate coordination and communication between its professional contractors. The initial schedule for drawings was specified in the contracts of both professional contractors and when this schedule was revised, both contractors were informed. In addition, the drawing schedule was discussed in the monthly status reports prepared by Morse/Diesel. These reports were

distributed to Murphy/Knight. The auditors have chosen to base their finding on a contractor's unsubstantiated complaint.

CDB RESPONSE TO RECOMMENDATION NUMBER 8, page 37

CDB maintains that it provided leadership and facilitated coordination and communication between the professional contractors on the project. Samples of such leadership are documented throughout CDB's files. As demonstrated by our responses on the preceding pages, CDB believes that the criteria upon which the auditors base their recommendation are unsubstantiated.

CDB COMMENT TO PAGE 38, paragraph 2

The auditors' statement that CDB paid Murphy/Knight for a 21 day period when the joint venture did not exist is incorrect. An agreement to joint venture existed in February 1979 when Murphy/Knight was prequalified by CDB. The joint venture was then selected by the Board to be the SOIC's design firm in April 1979. The joint venture agreement mentioned by the auditors specified the responsibilities and payments of the two firms in regards to the SOIC project and the auditors' date relates to the formal execution of this document.

AUDITORS' COMMENT

The agreement to joint venture for SOIC was signed May 21, 1979.

CDB RESPONSE TO RECOMMENDATION NUMBER 9, page 39

The professional contractors began work on their contracts after they had been selected by the Board, but before their contracts had been formally executed. However, it should be stressed that the services that the services performed were agreed to prior to the commencement of the contractors' work and these services were specified in the contracts of the professional firms. Furthermore, no payments were authorized by CDB until after the contracts were fully executed. The statute cited by the auditors in their finding was revised in 1982 to allow payment for such services if an affidavit is filed with the Comptroller and Auditor General. This revision was made because the original statute was found to be too stringent and not in agreement with common practice.

CDB COMMENT TO PAGE 41, paragraph 3

The implication the auditors attempt to make is that money is owed to CDB. This implication is clearly false. The purpose of liquidated damages is to ensure that work is done on time. No liquidated damages were collected from Newberg/Paschen because the contractor substantially completed all work under its direct control on schedule. Attempting to collect damages in this instance would be unfair and legally indefensible. As demonstrated by the monthly status reports of the Construction Manager, the closing out of all Bid Package #2 contracts began in March 1984. In addition, according to its CASS form which was verified by the architect, Newberg/Paschen had completed over 98% of its contract as of March 1984. Although its contract was substantially complete, a substantial completion form was not executed in March 1984 because of the size of the punch list and the interrelations among the work of contractors on the project. The performance evaluation prepared on May 29, 1984, for a reduction in Newberg/Paschen's retention was unrelated to liquidated damages.

AUDITORS' COMMENT

Our point is not that money is owed for liquidated damages, but rather that it is difficult to tell whether it is owed when substantial completion certificates are not issued.

CDB RESPONSE TO RECOMMENDATION NUMBER 10, page 42

CDB concurs with the auditors that the project schedule is an effective management tool. However, actual performance, and not the date written on a form, should be used as a measure of effectiveness. As previously discussed, the existence of substantial completion forms had no effect on the project's actual schedule. It also should be noted that the lack of Contract Extensions does not indicate an ineffective system of monitoring and evaluating contractor performance because such extensions are not issued unless requested by the contractors and approved by CDB. The auditors disregard their own citation of "Section 4.12 of CDB's Documents for Construction for SOIC."

AUDITORS' COMMENT

The lack of requests for extensions by contractors, even when they had exceeded their contract time, suggests there was no sense of urgency instilled to meet deadlines.



CDB COMMENT TO PAGE 42, last paragraph

Although the auditors discuss the cost of project delays, they fail to mention that one delay, the rebidding of Bid Package #1, saved the State approximately \$4 million.

CDB COMMENT TO PAGE 43, Table 8

The presentation in Table 8 and the auditors' narrative is distorted because the auditors omit the important fact that with the exception of Bid Package #3 the "Drawings Due" dates were taken from Morse/Diesel's contract which was prepared in 1979. The original schedule for Bid Package #4 is presented as a drawing delay when in fact it was not, because there were non-anticipated delays such as the strike, the accident and City mandated changes of the earth retention system. Furthermore, design drawings for Bid Package #4 were issued to potential bidders in February 1983, not April 1983 as shown.

AUDITORS' COMMENT

All of the dates in Table 8 are from Morse Diesel's Monthly Status Report #72, dated 11-15-85. We fail to see how the fact that some dates are also in their contract distorts anything.

CDB COMMENT TO PAGE 43, last paragraph

By the auditors' own enumeration, delays were beyond CDB's control and the implication that drawing delays independently caused the increase in the Construction Manager's payment is incorrect.

CDB RESPONSE TO RECOMMENDATION NUMBER 11, page 45

Schedule controls were implemented on the SOIC project. CDB concurs with the auditors that there were five separate factors resulting in a project delay of 21 months (land acquisition-4½ months; city mandated changes in earth retention system-5½ months; the strike-2 months; hoist accident-2 months; and user changes-8 months). It should be noted, however, that as described by the auditors in their narrative, these delays resulted from factors beyond CDB's control and we concur that they could not have been avoided using CDB's scheduling controls.

Though CDB concurs with the auditors that the rebidding of Bid Package #1 delayed the project by one month, this action saved the State approximately \$4 million.

CDB COMMENT TO PAGE 48, paragraph 2

All cost information presented by CDB was accurate for the point in time and the portion of the project discussed. The actual design of the SOIC was not selected until late in 1979 and final land costs were not known until 1980. As a result, all estimates released by CDB prior to February 1980 were design and site nonspecific, and conceptual in nature. The estimates in all early press releases were for the project's base building. The use of such estimates conforms to common industry practice. The November 1980 figure cited by the auditors was released after the March 1980 Budget Book clearly indicated that appropriations to begin construction of the SOIC totalled \$127.2 million. Obviously, the budget presented by the Governor is the most authoritative and widely disseminated document on the project.

CDB RESPONSE TO RECOMMENDATION NUMBER 12, page 48

In 1982, CDB reported the estimated cost of the SOIC as \$172 million. This estimate was all inclusive and has proven to be not only accurate, but \$4 million less than the 1981 estimate cited by the auditors. CDB reiterates that the \$89 million figure released in February of 1980 concerned the base building, as is indicated in the cost breakdown exhibited by the auditors. It is a common construction industry practice to release the cost of the "base building" when announcing a major construction project. An estimate for the SOIC at this time, though accurate for the building's core and shell, could not have been all inclusive as the final costs of land acquisition were not known, and final design drawings had not yet been prepared.

There has been an inordinate amount of confusion over the release of the \$89 million dollar base building figure, but the auditors continually ignore throughout the audit the appropriations for the SOIC in the FY'81 Budget Book. The Budget Book is the single most authoritative listing of appropriations for capital projects. The book is a public document released not only to the General Assembly, but to the media. In the copy released in March 1980, one month after the \$89 million dollar base estimate figure, there is an appropriation request for "\$96.3 million to begin construction of the new State of Illinois Center in Chicago." The passage of this request during the Spring 1980 legislative session increased total appropriations for the SOIC to \$127.2 million. Therefore it is evident that the General Assembly was not misled to believe that the building's total cost would be \$89 million.

CDB also would like to point out that the figures presented in Exhibit VI are misleading. Exhibit VI compares estimates which clearly were for a portion of the project with estimates which were for the entire project. Furthermore, Exhibit VI does not include the figures contained in the Budget Books and appropriations.

#### AUDITORS' COMMENT

CDB states that Exhibit VI "compares estimates for a portion of the project" with budgets for the entire project. That is our point: the estimates were not for the entire project, but that was not made clear in press releases. Our attention was specifically directed to estimates by the Resolution. Appropriations are listed in our Table I.

#### CDB COMMENT TO PAGE 55, Table 14

The auditors discuss, but make no finding or recommendation pertaining to expenditures for the Art-in-Architecture program. CDB concurs with the auditors that such expenditures were proper.

#### AUDITORS' COMMENT

Art expenditures do comply with the Art in Architecture Program set aside requirements. The expenditure of \$222,175 for Dubuffet expenses, however, is contrary to public announcements that the sculpture was provided at no cost to the public.

#### CDB COMMENT TO PAGE 56, first paragraph

When VOA's estimated fee was initially announced, the actual amount of VOA's contract had not been determined. The figure which was announced was CDB's preliminary estimate for VOA's basic design fee. Subsequent to the announcement, the scope of VOA's services was completely determined and the original estimate for the basic fee proved to be low.

#### CDB COMMENT TO PAGE 57, first paragraph

CDB strongly disagrees with the auditors' conclusion. The additional money paid to the A/E was not questionable. When the size of the commercial space was enlarged from 20,750 to over 139,000 square feet, the overall size of the building was most definitely increased. This change affected the design of the entire building, not just the added commercial area, for the configuration of the base building and the mechanical and electrical systems had to be designed to accommodate the increased commercial space. The additional fee paid to the A/E for this change compensated the firm for all phases of its work relating to the added commercial space. The auditors' comparison of square footage costs is inappropriate and misleading because it ignores changes to the design parameters of the total building which were necessitated by the increase in commercial space. The fee percentage of 4.07%, which was specified in the A/E's contract and used in computing the amount of Modification #2, was identical to

the fee percentage used in computing the A/E's original fee. The original design criteria for the A/E's contract called for only 20,750 square feet of commercial area, because at the time the A/E, contract was prepared, legal issues pertaining to the development of a large commercial area in the SOIC had not been resolved. Thus, it was not known if the commercial space would in fact be larger than the 20,750 square feet called for in the early planning studies.

#### CDB RESPONSE TO RECOMMENDATION NUMBER 13, page 59

Change orders on the SOIC were properly approved. CDB's contract documents clearly stipulate that contractors shall not proceed with any change until a change order is properly authorized. Therefore, any and all changes performed by contractors without proper prior approval by CDB are performed at the contractors' risk. The auditors' statement that 15% of the change orders were improperly authorized has not been substantiated, even though CDB requested such substantiation.

#### AUDITORS' COMMENT

We repeat, 15% was an estimate given by the Construction Manager. The CDB Project Executive, the Construction Manager, and both General Contractors all agreed that some changes were verbally authorized without CDB approval.

#### CDB COMMENT TO PAGE 60, paragraph 2

CDB's Change Order Review Committee has conducted a preliminary review of the 70 change orders whose classifications were questioned by the auditors. The Committee's review indicated that two of the 70 change orders were correctly coded as errors or omissions by CDB in 1984 and sent to the Committee for examination at that time. Of the remaining 68 changes, the Committee tentatively determined that 26 should have been classified as errors or omissions. The Committee has estimated that the architect's maximum potential liability for these 26 change orders is \$61,763. It must be stressed that the Committee's determinations at this time are preliminary, pending the receipt of responses from the A/E and the final review by the appropriate manager. As required by CDB procedures, this step will take place before the A/E's contract is closed out. It should be noted that due to the size of this project, CDB had planned to review all change orders on the SOIC prior to the completion of the project. The auditors' work in this area will facilitate our review.

CDB RESPONSE TO RECOMMENDATION NUMBER 14, page 61

CDB's method for monitoring errors and omissions conforms to accepted industry practice. Charges for errors and omissions on the SOIC project will be assessed prior to closing out the A/E's contract.

CDB, though concurring with the auditors that A/E errors and omissions should be monitored and mitigated, disagrees with the auditors' recommendation. This recommendation runs counter to standard construction practice used by government and private industry and is based on a misunderstanding of CDB's change order review process. Contrary to the auditors' description, potential damages stemming from error and omission change orders are not mitigated, and do not become accounts receivable until after the appropriate CDB manager has reviewed the individual decisions of the Change Order Review Committee and given the A/E opportunity to respond. This action takes place prior to the final close out of the A/E's contract so that the cumulative effect of such change orders may be evaluated. If at this time it is determined that the level of errors and omissions is unreasonable, a charge is assessed the A/E. It is at this time that an account receivable is created and collected by CDB. Once charges are assessed, they are not forgiven.

CDB COMMENT TO PAGE 61, last paragraph

As stated previously, CDB has reviewed the 70 change orders questioned by the auditors. CDB agrees that 26 of these change orders should have been coded as errors and omissions. CDB has initiated action to recode and monitor these 26 change orders.

CDB COMMENT TO PAGE 62, 2nd full paragraph

CDB anticipated changing user needs. As a result, the tenant work was bid with unit prices, the contracting strategy being to add individual tenant needs by change order. The inclusion of unit prices with the bids for the tenant work ensured that the change orders would be competitively priced. In addition, as noted previously by the auditors, the number of change orders on the project was not unusual.

Closer coordination by CDB on the items noted by the auditors would have had little impact on the number of user requested changes. The example cited by the auditors provides a good illustration of this fact. In 1980 when the facilities for the building's utilities were being designed, CDB and the Architect were informed by the using agency that a sole source would be used for telecommunications. Based on this information, the Architect designed the building to accommodate the equipment of

the sole source. After construction had begun, the using agency determined that the telecommunications work should be bid because of the changes in the telecommunications industry. The using agency then bid this work and in April 1983, awarded a contract to the low bidder who was different than the originally proposed sole source. To accommodate the low bidder's equipment, certain design changes had to be made, and this resulted in user requested change orders. No action by CDB could have prevented these changes.

#### CDB RESPONSE TO RECOMMENDATION NUMBER 15, page 62

The SOIC contracts stipulate that contractors shall not proceed with any change until a change order is properly approved. The date on which the work will be performed is not known when a change order is approved. The approval date of a change order is given on the bottom of the RFP/CO form.

#### AUDITORS' COMMENT

Files indicate some work done prior to approval dates. When date of work cannot be entered at the time of approval, provision should be made to enter it after work is completed.

#### CDB COMMENT TO PAGE 64, paragraph 3

CDB concurs with the auditors that there have been no cost overruns on this project. All increases in contract amounts have been within the project's budget.

#### CDB COMMENT TO PAGE 65, last paragraph

The SOIC will be completed with available funds. The Construction Manager's report mentioned by the auditors includes all claims made by contractors. Since many of these claims have been determined by Morse/Diesel and CDB to be without merit, the report total does not accurately reflect the value of anticipated change orders.

CDB wishes to note that according to the book Managing Capital Budget Projects, by Felix Pomeranz of the "Big 8" accounting firm, Coopers and Lybrand, the final cost of a construction project generally falls within a range of plus or minus 20% of the estimate prepared when at least 40% of the design work is complete. Though less than 40% of the design drawings were complete in December of 1979 when the estimated cost of the SOIC was \$149.4 million, the final cost of the SOIC will fall within this standard of performance. The \$75 million figure mentioned by the auditors was clearly only for the project's base building.

Furthermore, this estimate was design and site nonspecific, and thus, highly conceptual in nature. Comparing this conceptual estimate for the base building with the complete cost of the total project results in a meaningless comparison.

CDB COMMENT TO PAGE 68, last paragraph

It is standard industry practice to complete and move into large buildings such as the SOIC in phases. Tenant spaces were, in fact, substantially complete when occupied.

CDB COMMENT TO PAGE 69, first paragraph

Although the fire safety system was not fully automated, the system was operational and provided adequate protection when the building was occupied. The heating and air conditioning was installed, but it malfunctioned. CDB has taken action to correct this problem.

CDB COMMENT TO PAGE 69, paragraph 3

According to an opinion of the Attorney General, CDB is not legally required to comply with local codes. Thus, CDB was not required to follow the occupancy requirements of the City of Chicago. However, in the spirit of cooperation, CDB added the Certification of Occupancy issued by the City to the requirements for the SOIC. CDB management was aware of the certification requirement.

CDB RESPONSE TO RECOMMENDATION NUMBER 16, page 69

CDB does not concur with the auditors' conclusion that the SOIC was occupied prematurely. It is standard industry practice to occupy buildings in phases, and the phased completion and occupancy of the SOIC were indicated in early project schedules. Although all substantial completion forms may not have been officially executed, all areas occupied by user agencies were, in fact, substantially complete at time of occupancy. User agencies, like any tenant in a newly opened office building, were inconvenienced by contractors finishing their punch list items. CDB admits that problems with the air conditioning system as installed created uncomfortable temperatures in the building. The inconveniences suffered, however, are greatly diminished when the savings to the state realized by the phased move-in are considered. CDB questions the auditors' repeated statements about user dissatisfaction with the building. The auditors' survey, taken early in the building's occupancy, indicates that 2/3 of the user agencies in the building are satisfied with their office space, which is quite high given the impression created by the auditors.

It should be noted that significant portions of incomplete work in the building did not fall under the auspices of CDB. The unfinished CTA station, for example, was the responsibility of the City of Chicago. In addition, it should also be noted that in March 1985, the Court did not accept the City's allegations that there were fire code violations which warranted the closure of the building.

CDB COMMENT TO PAGE 71, last full paragraph

Considering that the auditors' survey was conducted during the initial months of the buildings occupancy when the air conditioning system malfunctioned, CDB believes that the fact that two-thirds of the respondents were satisfied with their space is a positive finding. CDB firmly believes that tenant satisfaction will increase when the problems with the air conditioning system are corrected.

CDB RESPONSE TO RECOMMENDATION NUMBER 17, page 72

CDB's Executive Director has publicly stated since early last summer that CDB will not pay for any additional costs required to make the heating and air conditioning system function as was called for in contract plans and specifications. CDB maintains that the contractors are responsible for the effective operation of the system. CDB appreciates the auditors' recommendation concurring with the position CDB has always held.

CDB RESPONSE TO RECOMMENDATION NUMBER 18, page 74

The SOIC is one of the most accessible office buildings ever constructed in Illinois. This is demonstrated by literally thousands of items that were constructed in compliance with the accessibility standards. The combined square footage of the non-accessible areas identified by the auditors comprises approximately one-tenth of one percent of the building's total area. Thus, the SOIC is 99.9% accessible. Although this percentage is high, CDB will not be satisfied until the building is 100% accessible. It should be pointed out that CDB was aware of the three items cited prior to the issuance of this audit, and had already initiated corrective action. CDB began working with the architect to correct the items in the auditorium in August of 1985. The two washroom doors identified by the auditors were not constructed by CDB, but by the developer of the commercial space. On August 26, 1985, CDB informed the developer that the two doors did not meet accessibility standards and would need to be corrected. CDB is monitoring these three items to ensure that the proper corrective action is taken.



CDB COMMENT TO PAGE 75, Exhibit VII

This survey of the costs of recently constructed Chicago office buildings clearly exhibits that the total cost per net and gross square foot of the SOIC is in line with the cost of nine other major office buildings recently constructed in Chicago. Upon examination of the table the SOIC comes in at a lower cost per gross square foot than six of the other nine buildings, and lower than four of the nine buildings in regard to net square footage. This is a very significant finding given the general public's perception about the SOIC's cost.

CDB finds it unfortunate that the auditors fail to comment on the resulting facts of their own survey.

CDB COMMENT TO PAGE 76, paragraph 1

The services of the Space Planner were performed when needed. The postponement of these services would have resulted in needless project delays. The design of the SOIC has won numerous awards and received international acclaim.

CDB COMMENT TO PAGE 76, paragraph 2

As previously stated, all cost information presented by CDB was complete and accurate for the point of time and portion of the project discussed. The use of core and shell estimates was consistent with industry practice. Furthermore, the budget book which was the single most important document regarding the project's costs was issued at the same time as the initial \$89 million estimate for the building's core and shell. The budget book clearly demonstrates that the cost to begin construction of the SOIC was \$127.2 million. Thus, the auditors' speculation that the public was misled is incorrect.

CDB COMMENT TO PAGE 76, paragraph 4

The purpose of liquidated damages is to ensure that work is completed on schedule. Liquidated damages were not assessed on the two contracts which contained such clauses because both contractors completed their work on time. This fact is clearly documented by the reports of the Construction Manager and the contractor's CASS forms which were approved by the Architect. Given that the contractors completed their work on time, attempting to collect for damages would be unfair and legally indefensible.

CDB COMMENT TO PAGE 76, paragraph 5

CDB has not failed to collect charges associated with A/E errors and omissions. This will be done before the A/E's

contract is closed, as required by CDB procedures. CDB's procedures for monitoring and controlling A/E errors and omissions are consistent with standard construction practice used by government and private industry.

CDB COMMENT TO PAGE 76, last paragraph

CDB vehemently disagrees with the auditors' conclusion, because, as discussed in the following responses, the criteria upon which this conclusion is based are flawed. Since the inception of the project, CDB has taken an active role in the management of the SOIC project. For example, throughout the course of the project, at least two, and often three, full-time employees were assigned solely to the SOIC. These employees were at the site daily. This staffing level compares to the fact that on the average, CDB's project managers are assigned to more than 20 different projects at any one time. Furthermore, additional full-time staffing was assigned to the SOIC as needed and substantial amounts of time were devoted to the project by CDB's top management and other personnel.

CDB COMMENT TO PAGE 77, first paragraph

As previously concluded by the auditors, most delays in the SOIC's completion were caused by factors beyond CDB's control such as the accident, the strike and changes in the earth retention requirements of the City of Chicago. CDB intervened frequently to expedite the preparation of design drawings and, in fact, required the Architect to notify its liability carrier of CDB's concerns. The auditors' implication, however, that drawing delays independently resulted in additional rent costs of \$6.3 million is demonstrably false and, therefore, extremely misleading.

AUDITORS' COMMENT

There is a letter in CDB files requesting the Architect to notify its liability carrier. Files also include the Architect's reply stating: "Regarding your request for proof that we have notified our insurance company of a potential claim, our policy carries a specific exclusion for the cost of delays, please see attachment. Because of this exclusion, we see no reason to bring this to the attention of our insurance carrier."

CDB COMMENT TO PAGE 77, paragraph 2

Inspections prepared for the perfection of substantial completion forms are not a quality control function. All areas of the building were, in fact, substantially complete when they were occupied.

CDB COMMENT TO PAGE 77, paragraph 3

The Construction Manager monitored and reported on the status of the project's schedule at monthly meetings and in its monthly reports. Complete revisions to the Construction Manager's master schedule were made when needed as specified in its contract.

CDB COMMENT TO PAGE 77, paragraph 4

All Change Orders were approved in accordance with CDB's procedures. As clearly specified in the contract documents for the SOIC, any change performed without CDB's approval is performed at the risk of the contractor. The auditors have not substantiated that change orders were improperly approved.

CDB COMMENT TO PAGE 77, paragraph 5

The roles and responsibilities of the Construction Manager and contractors working on the project were clearly defined in their respective contracts. CDB clarified these responsibilities when asked.

CDB COMMENT TO PAGE 77, paragraph 6

The decision to occupy the SOIC in phases is consistent with accepted industry practice and saved the State money. Tenant spaces were substantially complete when occupied. It is CDB's position that the staffs of CDB and CMS have worked well together. One example of this fact is that CDB and CMS conducted joint surveys to review areas of the building before these areas were occupied. Checklists were prepared during these surveys.

CDB COMMENT TO PAGE 77, last full paragraph

A procedure to accept floor space did exist. CDB's Project Executive and the Building Manager reviewed each specific area before an agency moved into the SOIC. In addition, certain aspects of the building, such as the carpeting, electrical system and elevators, were acceptable and had to be accepted by CDB before CMS became involved as the using agency to allow work to continue.

CDB COMMENT TO PAGE 77, last paragraph

Systems that were incomplete or not functioning properly have not been accepted.

CDB COMMENT TO PAGE 78, 2nd full paragraph

CDB and CMS have worked well together, and have cooperated to resolve any existing problems. Prior to the building's occupancy, a procedure was established to accept floor space. Under this procedure, CDB's Project Executive and the Building Manager reviewed each specific area before an agency moved into the SOIC. Many of the building's components had to be accepted by CDB prior to CMS's involvement in the management of the building. A large portion of the mechanical system has yet to be accepted due to the malfunction of the air conditioning, a problem which no one could have anticipated. The auditors have not presented evidence that the building was prematurely occupied.

CDB COMMENT TO PAGE 78, last paragraph

The Capital Development Board disagrees with the auditors that CDB ever improperly managed or lost control of the SOIC project. While due to the size and complexity of the SOIC some paperwork requirements may not have always been met, CDB does not feel that indicates a lack of management on the project. If one considers all of the complex aspects involved, from the contracting strategy to the coordination, through the design stage and construction, CDB did in fact demonstrate its ability to effectively and efficiently manage this project.

Even though faced with the many delays that can arise on projects of this size and complexity, CDB would like to point out that:

\*\*\*All goals established by the Capital Development Board in 1975 were met.

\*\*\*As the auditors point out, there were no cost overruns.

\*\*\*The procedures and practices of CDB, as noted by the auditors, are adequate.

\*\*\*As indicated by the auditors' building survey, the SOIC's cost is favorably competitive with the private sector.



