Session Law 83-160

Florida Senate & House of Representatives
### COMMITTEE RECORDS

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<td>1966</td>
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<td>Gen. Graham, Construction Industry Study Comm. 1962-63</td>
<td>5,882, Box 51</td>
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**NOTES**

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January 17, 1983

The Honorable Bob Graham,
Governor of Florida
The Capitol
Tallahassee, Florida 32304

Dear Governor Graham:

The City of Fruitland Park is opposed to the recommendations of the Governors Committee for the study of the construction industry (Vogt Committee).

We are of the opinion that these restrictive measures are being promulgated because of recent unfortunate incidents in the industry.

Further, the building inspectors were not responsible for those failures, why then mandate exclusion where they are already excluded?

We also oppose the mandating of permit fees to the exclusive use of the building department.

We support the Florida League of Cities in opposing these recommendations.

Sincerely,

CITY OF FRUITLAND PARK

R.A. Yoder, Jr.
City Manager

RAY:ne
Senator John W. Vogt
3500 North Atlantic Avenue
Cocoa Beach, Florida 32931

Dear Senator Vogt:

After carefully reading the recommendations of the committee for the study of the construction industry dated December 20, 1982, we have made several observations.

The committee sights duplicity of services in that both building and fire inspections are performed during construction. This is called checks and balances - it insures that measures designed to insure life safety are not overlooked or omitted. Beyond that there is protection for the firefighter; that brave and selfless person who enters the building when everyone else is trying to get out.

The very same measures designed into a building to protect the occupants also insure the integrity of the structure under fire conditions for a given period of time. Without these safeguards the fire service would soon learn to fight fires from the street and let the insurance companies pick up the ashes.

From an economical approach we are sure that general contractors would rather be told of a fire protection requirement they have omitted prior to completion of the project. Surely it would be far more costly to retrofit than to do it right the first time. After many combined years in the fire service we feel we can honestly say that builders are occasionally susceptible to oversight and most building inspectors lack the same expertise of fire service personnel. Hence, to say that fire inspections are not needed, surely is not in the full interest of the general public.

The expressed desire to eliminate the fire marshal from the inspection and plans review process surely was not accorded prudent reason. To return to a period when the only thing which concerned the fire marshal was alarm systems and fire hydrants would be to set the entire fire service back 100 years. We find it difficult to believe that a state progressive enough to legislate certification of fire inspectors would take such an obvious backward giant step.

If the state legislated certification of building inspectors and mandated education equal to that required of fire inspectors then perhaps the state could consider intergrating some inspection responsibilities. However, under the
present conditions the concept of placing total responsibility for plans review and construction inspections on the building department is, not only ill advised, totally unfair to the building officials of Florida.

This proposal is totally unacceptable to us and we would do whatever is in our power to oppose adoption of any legislation which advocates the recommendations put forth in it. Any assistance you can offer in dissuading this committee would be greatly appreciated by the general public as well as by us.

Yours in fire safety,

ALTAMONTE SPRINGS-FIRE DEPARTMENT

T. L. Siegfried
Fire Chief

Walter A. Malo
Fire Marshal

cc: Honorable Bob Graham, Governor
    Bill Gunter, State Fire Marshal
January 11, 1983

Honorable Bob Graham
Governor State of Florida
The Capitol
Tallahassee, FL 32301

SUBJECT: 1) Your Construction Study Committee
2) Page 4 of CS/HB 681; Chapter 82.179 (copy attached)

Dear Governor Graham:

First of all, thank you for the time taken to read this letter.

It has become increasingly obvious to my office that recent legislation passed as an amendment to the above referenced Bill, is seriously affecting my business. I am a registered Professional Engineer with an office in Ocala, Florida. There are six people in my employ who are dependent on this business for their income. We may have effectively been put out of business, only time will tell.

The above referenced amendment allows contractors to design systems for buildings where the air conditioning system is valued at $100,000 or less. They must install the system themselves, thus eliminating the competitive bidding process. The owner is placed in a position of "no competition" on his building systems which is well known to be a much higher cost situation. It can be shown in many jobs that the variation in bid price on an identical building system can exceed the engineering design fee by quite a lot. In other words, the owner's interests are best served by a set of engineering drawings and specifications where competitive bidding occurs to provide the best price to install that system. The engineer is held responsible for the design performance of the system and the contractor is held responsible for workmanship and integrity of his installation.

It is a well known fact that most plans produced by a contractor are very loose in exact specification of what will actually be installed. They generally leave the door wide open for very wide variation in both materials and methods. The owner never knows exactly what he will have upon completion and relies completely upon the integrity of the contractor not to take advantage of the situation.

Dedicated To Energy Conservation In Building Systems
Building codes are in place to hold the public safe and not to provide anything more than that. I feel that this will place a much larger burden on the building departments than they have now. Most of the building departments in this state are overburdened in work load due to the growth we are experiencing. They will not have an engineering seal on the drawings to depend upon, and will have to spend much more time in plans examination, if in fact complete plans are submitted with complete specifications. If this amendment is allowed to continue in force it should be required that all commercial and residential buildings have a complete set of plans and specifications on exactly what will be installed as building systems. This would, at least, give the building department a complete picture on which to make code judgments prior to the construction phase where compromises may have to be made, not in the best interest of anyone.

Finally in the introduction of this amendment to HB-681, Mr. Daniel Webster has created all the appearances of having a "conflict of interest" since he is in the mechanical contracting business and stands to benefit greatly from this legislation, in his personal business.

I believe that this legislation passed during special session and did not receive the attention and examination normally given prior to passage. It is requested that your Construction Study Committee be asked to review this particular amendment for possible revision. As it now stands a building construction value must exceed one million before a registered engineer is required for HVAC design. (HVAC system represents approximately 10 percent of construction cost).

Again, Governor, I thank you for your time and any consideration shown this request.

Sincerely,

James M. Fitzpatrick, P.E.

JMF/mgs

Enclosure

cc: File
and the manner in which such course of treatment is carried out by the
licensee.

(c) The patient records of a dentist.

(c) Policies and decisions relating to pricing, credit, refunds,
    warranties, and advertising; and

(d) Decisions relating to office personnel and hours of practice.

(3) Any person who violates this section is guilty of a felony of the
    third degree, punishable as provided in s. 775.082, 775.083, or s.
    775.084.

Section 5. Paragraph (1) of subsection (2) of section 471.003,
Florida Statutes, is amended to read:

471.003 Qualifications for practice, exemptions --

(2) The following persons are not required to register under the
    provisions of ss. 471.001-471.039 as a registered engineer:

(1) Any electrical, plumbing, air-conditioning, or mechanical
    contractor whose practice includes the design and fabrication of
    electrical, plumbing, air-conditioning, or mechanical systems,
    respectively, which he installs by virtue of a license issued having
    qualified under chapter 489, under part I of chapter 553, or under
    (Contracts) or any special act or ordinance, when working on any
    construction project which:

    1. Requires:

    a. An electric service of less than 600 amperes in residential
       construction and less than 800 amperes three-phase in commercial or
       industrial construction;

    b. A plumbing system of less than 125 fixture units, or

    c. Air-conditioning and refrigeration equipment to serve an occupant
       content of fewer than 100 persons that has a value of $100,000 or less;

    2. Has a value of $10,000 or less. Applies to sec 1a and b.

Section 6. Subsection (13) of section 177.031, Florida Statutes, is
amended to read:

177.031 Definitions.--As used in this chapter:

(13) "P.C.P." means permanent control point, which shall be a
    secondary horizontal control monument and shall be a metal marker with
    the point of reference marked thereon or a 4-inch by 4-inch concrete
    monument a minimum of 24 inches long with the point of reference marked
    thereon. "P.C.P.'s" shall bear the registration number of the surveyor
    filing the plat of record; however, when the surveyor of record is no
    longer in practice or is not available due to relocation of his practice,
    or when the contractual relationship between the subdivider and surveyor
    has been terminated, any registered land surveyor in good standing shall
    be allowed to place Permanent Control Points within the time allotted in
    s. 177.091(8).

Section 7. Section 177.141, Florida Statutes, is amended to read:

177.141 Affidavit confirming error on a recorded plat.--In the event
an appreciable error or omission in the data shown on any plat duly

CODING: Words in struck through type are deletions from existing law;
words in underscored type are additions.
Memorandum

To    Ms. Nancy Smith, Office of the Governor
From  Ms. Pat Guilford, Staff Assistant, Division of Professions
Subject Attached Correspondence from Mr. James M. Fitzpatrick
Date   January 25, 1983

In following up our telephone conversation of Monday, January 24, 1983, I have attached the correspondence referenced above.

Again, in view of the fact that the Committee for the Study of the Construction Industry held its final meeting on the 24th of this month, I would suggest that you forward a copy of Mr. Fitzpatrick's correspondence to Senator John Vogt and a copy to Mr. James Linnan, Executive Director of the Construction Industry Licensing Board at 111 East Coastline Drive, Jacksonville, Florida 32202 for their review and consideration.

As I mentioned to you yesterday, the legislative recommendations will be put into bill format at a later date by the legislative representatives that served on this Committee.

If we can provide any further assistance regarding this matter, please feel free to give us a call.

Please accept our apologies for the delay in responding to this request.

Thank you.

/pbg

cc: Secretary Fred Roche
    Mr. Charles Barner, Assistant Secretary
    Mr. Michael Schwartz, General Counsel
BE IT RESOLVED BY THE HERNANDO COUNTY BOARD OF COUNTY
COMMISSIONERS AS FOLLOWS:

SECTION 1: The HERNANDO COUNTY BOARD OF COUNTY COMMISSIONERS
on behalf of the people of Hernando County, as the representative
body of said people, hereby strongly expresses its opposition to
certain proposals of the Governor's Study Committee for revisions in
the State of Florida laws pertaining to building construction and
the construction industry.

SECTION 2: The specific proposals of the Governor's Study
Committee which the HERNANDO COUNTY BOARD OF COUNTY COMMISSIONERS
expressly opposes are hereinafter identified as follows, to-wit:

a. The proposal that a Registered Professional
Engineer be mandated to conduct inspections
during construction of certain designated threshold
building.

b. The proposal that all permit fees generated
within the local building departments be
restricted to utilization solely within the
local building department.

SECTION 3: The Hernando County Legislative Delegations is
hereby respectfully requested to vigorously oppose any legislation
promoting the herein identified proposals.

SECTION 4: The Clerk of the Circuit Court is hereby directed
to send a copy of this resolution to the Governor and all the members
of the Cabinet, all members of the Hernando County Legislative
Delegation, the Speaker of the Florida House of Representatives, and
the President of the Florida Senate.

ADOPTED in Regular Session of the HERNANDO COUNTY BOARD OF
COUNTY COMMISSIONS on the 4th day of January, 1983.

[Signature] [Signature]
MEMORANDUM

To: Jim Eaton, Legislative Affairs
From: Laurey Stryker
Subject: Governor's Meeting with Senator Vogt on the Construction Industry Committee Recommendations - April 7, 1:00-2:00 p.m. In the Governor's Small Conference Room
Date: March 30, 1983

I have attached a copy of the recommendations resulting from the Governor's March 24 review with Secretary Fred Roche.

The attendees for the April 7 meeting are:

- Senator John Vogt - Chairman
- Representative Bud Gardner - Vice Chairman
- Representative James Ward
- Fred Roche - DPR
- John Burke/Jack Haslam - DCA
- Laurey Stryker - OPB
- Bill Kynoch - OPB

Please let me know if you need additional information on any of the recommendations.

LS/ssc
Attachment

cc: Bill Kynoch
Dick Burroughs
Charlie Reed
Linda McMullen
Scheduling

Jim: you are right! # to handle
MEMORANDUM

TO: Governor Graham
FROM: Laurey Stryker
SUBJECT: Meeting with Senator Vogt on April 7 - Recommendations of the Construction Industry Study

The following are the recommendations of the Committee for the Study of the Construction Industry with your position from the March 24 meeting with Secretary Roche.

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<td>Support</td>
<td>Limits Building Department review of plans and specifications to applicable minimum codes to restrict local liability to items affecting health and safety. Defines a threshold building and requires on-site inspection by a special inspector designated by the Building Department and compensated by the owner of the threshold building.</td>
</tr>
<tr>
<td>2</td>
<td>Support</td>
<td>Requires certification of building officials and construction inspectors through the DCA and establishes deadline qualification without exam of July 1, 1986 for persons certified or registered by the: 1) Building Officials' Association of Florida; 2) Broward County; 3) Southern Building Code Congress, Int.; 4) Chapter 471, F. S., Engineer Licensure; 5) Chapter 481, F. S., Architecture Licensure; and 6) Council of American Building Officials. Department of Professional Regulation is structured to administer professional licensing programs and can provide contract</td>
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<td>ITEM</td>
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<td>3</td>
<td>Support</td>
<td>Services in the following areas: 1) Exam development and testing; 2) Investigations; and 3) Automated license processing and record maintenance system.</td>
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<td>Oppose</td>
<td>Development of State exam should entail thorough review of exams currently offered by the various approved registration and certification programs.</td>
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<td>Recommends further study of construction practices for the Board of Education, State and federal projects.</td>
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<td>5</td>
<td>Further Review</td>
<td>Establishes Engineer, Structural category requiring three years additional experience and a 16-hour structural exam.</td>
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<td>Imposes an undue restriction on local government financing. Local governments have the responsibility to establish their needs and to allocate appropriate resources. They should have the flexibility to utilize all available resources in planning and implementing programs.</td>
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<td>Limits engineers that sign off on construction plans to the more experienced and knowledgeable.</td>
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<td>Additional category may have a negative impact on reciprocity.</td>
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<td>6</td>
<td>Support</td>
<td>Revision of State Building Code to require professional review by the architect and/or engineer retained by the owner. This would require written certification to the Building Official that the construction complies with applicable codes.</td>
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<td>7</td>
<td>Further Review</td>
<td>Recommends that DPR provide to the Building Officials a roster of registered engineers by status and discipline.</td>
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<td>COMMENTS</td>
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<td>8</td>
<td>Support</td>
<td>Recommends that critical electrical and mechanical building systems be sealed by the appropriate professional.</td>
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<td>9</td>
<td>Defer</td>
<td>Recommends deletion of the FLEET Program in DGS as being obsolete and adoption of the State Energy Code requirements.</td>
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- A STAR grant through the Energy Office and University of Florida is reviewing the effectiveness of FLEET and will have final recommendations available in late May. Preliminary findings show that FLEET is sound but needs improvements.

- DOE currently contracts for FLEET services but is contemplating performing an in-house life cycle analysis on educational facilities. DOE advises that FLEET was not originally designed for educational facilities and no modifications to the program have been made. In addition, follow-up on completed structures is not adequate.

10    Support | Recommend continuation of Consultants' Competitive Negotiations Act to ensure selection of most qualified professionals. |

- Due to the recent court decision which held that CCNA does not prohibit the use of fee quotations, OPB is monitoring agency rule filings.

11    Support | Recommends that business entity be held equally responsible with the contractor in disciplinary matters. |

12    Support | Recommends that the contractor may qualify only one business entity without appearing before the CILB. |

13    Support | Recommends issuing primary building permits for threshold buildings to licensed general contractors only. |

14    Oppose | Recommends $25,000 license bond for general and building contractors for first 5 years of licensure to apply in instances of abandonment, diversion of funds, and code violations. |

- Negative impact on minority contractors.
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| 15   | Support  | Recommends establishing a Recovery Fund to cover all contractors except general and building contractors.  
  • Recovery Fund should be restricted to residential contracting.  
  • Maximum amounts and funding sources need to be established. |
| 16   | Defer    | Recommends that review of fire safety codes should reside with the Building Department to eliminate duplicate reviews of Building Departments and State Fire Marshal.  
  • The State Board of Building Codes and Standards in DCA and the Fire Marshal's Office have agreed to discuss and resolve differences on code interpretations. |
Condo fall still stirs up argument

Forty-nine units were flooded, but no one was killed. The Trianon Park Condominium decision has been upheld by a district court of appeal and is about to be argued before the Florida Supreme Court. In one swift blow, the last vestiges of home rule for cities were wiped away with that decision, some municipal officials believe. They are praying that theSupreme Court will overturn that decision that could leave cities with huge liabilities in the event of building failures—regardless of who was at fault.

"If the Trianon Park decision stands, government will be liable for any and all defects in any and all buildings in the state of Florida," said Thomas Goldstein, an assistant Bexley County attorney. A crippling blow to Hialeah's case came when its building inspectors could not discuss their own building codes understandingly during pretrial depositions. "They did not know the fire protection requirement," Alan Tannenbaum, a Fort Lauderdale attorney who represented condo owners in the case, told the Vogt committee.

They did not know what the roof requirements were. They did not know what their duties were. "Interestingly, in trial all of a sudden they had become educated and they knew the code and they knew the section. And that was brought out in trial. "They were ill prepared to inspect just on the basis of the fact that they didn't know the law, the rule that they were, by statute, authorized to uphold."

Building officials say required certification could prevent such ill-prepared inspectors from keeping their jobs. But Knowles said certification will not guarantee building safety. He said that in the Hialeah collapse the city building inspector was an engineering graduate while the architect, engineer, and contractor were all certified. "So what's the magic of certification?" Knowles asked rhetorically.

"They had everything going for them and it still collapsed."

Condo fall still stirs up argument
Experience backs building inspectors

By Mark Andrews

A survey of building inspectors in Central Florida showed that the average municipal building inspector in Central Florida is in his 60s, has at least 20 years of experience in construction and is certified in his field by at least one of three trade groups.

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The Study
Of The
Construction Industry

Final Report
February 1, 1983
The Honorable Bob Graham  
Governor, The State of Florida  
The Capitol  
Tallahassee, Florida 32301

Dear Governor Graham:

CSHB 681 passed by the 1982 Legislature and signed into law by you on April 21, 1982 directed a committee be established for the Study of the Construction Industry.

I am pleased to forward to you today the results and recommendations of the Committee.

As you know, I chaired the Committee and was ably assisted by Representative James Ward and Representative Winston Gardner. The individuals of the construction industry you appointed to the Committee were outstanding in their knowledge and dedication to the assigned task.

The legislative members will meet immediately to determine how this product will be introduced into the legislative process, and we look forward to your recommendations and assistance on this very important subject.

Sincerely,

John Vogt

cc: President of the Senate  
Speaker of the House
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EXECUTIVE SUMMARY

On March 27, 1981 the Construction Industry in the State of Florida was shocked by the collapse of a condominium in Cocoa Beach resulting in the loss of eleven lives. In the aftermath of this disaster the regulatory agencies of our state have attempted to identify who, what and why regarding responsibility for this misfortune. Specifically, the Construction Industry Licensing Board has revoked one General Contractor's License. Within the Engineering Board, one license was surrendered voluntarily and the Board revoked another license with an administrative fine of $3,000. The Board of Architecture suspended one license for ten (10) years and upon reinstatement, the licensee will be on probation for a period of two (2) years. In addition, the Construction Industry Licensing Board suspended for two (2) years, the license of the contractor who qualified the responsible company.

The role of building departments has been questioned in assessing their potential responsibility in the event such an accident were to occur again.

In view of the above, it is apparent that we must review our present construction related statutes, rules and regulations to ensure they provide adequate protection for the citizens and consumers in our state and additionally, facilitate the pinpointing of responsibility for the public health, safety and welfare in the Construction Industry. This industry is a vital factor in the economy of our state. Its importance is growing yearly.

In 1979 construction contract value in the State of Florida amounted to 12,176 million dollars versus 168,446 million dollars overall for the total United States. In 1980, Florida increased its value to 12,926 million dollars while the total United States dropped to 147,164 million. During 1981 Florida led all other states in public and private residential building permit activity. To emphasize this point, Florida issued 149,241 permits as compared to a total of 991,529 for the total of the United States.

While this tremendous level of construction has been developing in Florida, it has brought with it construction
failures and construction problems that affect the health, safety and welfare of the people of our state.

Of paramount importance to this report are the construction failures throughout our building industry. Yet while we discuss structural failures, or material failures, etc., there is according to one expert witness, Mr. Dov Kaminetzky, basically only one type of failure -- human failure. This basic failure can be broken down into four causes, i.e., negligence, greed, ignorance and carelessness.

While this report makes specific recommendations to overcome failure problems and causes today, we also should strive to learn from the mistakes that others have made in the past so the same mistakes will not be repeated. Certainly builders of earlier generations had their share of failures. As early as 2200 B.C., the Hammurabi Code, cut into a five-sided abelisk, included five rules of punishment for defective construction. These rules were as follows: (Literal Translation.)

a) If a builder builds a house for a man and does not make its construction firm and the house which he has built collapse and cause the death of the owner of the house - that builder shall be put to death.

b) If it cause the death of the son of the owner of the house - they shall put to death the son of the builder.

c) If it cause the death of a slave of the owner of the house a slave of equal value.

d) If it destroy property, he shall restore whatever it destroyed, and because he did not make the house which he built firm and it collapsed, he shall rebuild the house which collapsed at his own expense.

e) If a builder build a house for a man and do not make its construction meet the requirements and a wall fall in, that builder shall strengthen the wall at his own expense.

Although the rules were quite drastic in certain cases, the last two rules are still quite the common law on the subject.

Of the four basic causes involved in human failure, a governmental unit can only concern itself with one, the ignorance cause, as this is the only one on which they can improve. Ignorance has to do with communication and ignorance can be controlled by some legislation.
Testimony before this committee and study by its subcommittees reveal a lack of systematic authority and responsibility from the owner, the architect, the design/structural engineer, the building departments, and the general contractor. Therefore, this report makes specific recommendations relative to each of the above.

A total of sixteen items have been addressed with specific recommendations made concerning these problem areas. Other items were considered by the Committee but are not covered by this report. These areas concerned the Certification of Construction Superintendents, Peer Review of Engineer Designs, Liability Insurance for Engineers and the Home Owners Warranty Program. While these items are acknowledged as a concern to the Construction Industry, this Committee gave priority to the recommendations hereby submitted.

Only when the Executive and Legislative branches of State Government are well informed as to the requirements for authority and responsibility of all elements of the Construction Industry, can the regulatory process function properly. To this end, it is strongly urged that the recommendations in this report be considered on a priority basis. The recommendations are listed in Attachment A.
PURPOSE AND SCOPE

This report was prepared as the initial product of the Committee for the Study of the Construction Industry. The Committee was created by CSHB 681 passed by the 1982 legislature and signed into law by Governor Graham on April 21, 1982. A copy of this legislation is attached - pertinent sections are as follows:

Section 40. (1) There is hereby created a Committee for the Study of the Construction Industry which shall encompass professionals and businesses integral to the Construction Industry. The purpose of the Committee shall be to research, review and analyze conditions, standards and practices in commercial and multi-unit residential construction in Florida, to identify those conditions, standards or practices which present a risk of personal injury of property damage, or are otherwise detrimental to the public health, safety and welfare, and to recommend measures to correct or alleviate such conditions, standards or practices.

(2) The Committee shall meet at the call of the chairman. The Committee shall direct it's primary attention to buildings with concrete work where the design is based on a compressive strength in excess of 3,000 pounds per square inch, buildings with an area greater than 5,000 square feet, buildings more than 20 feet in height, buildings and structures of unusual design or methods of construction, and buildings where complexity or special electrical, plumbing, mechanical, or other systems require continuing control during construction. The Committee's study shall include, but not be limited to: (1) conditions, standards and practices relating to the licensing and competency of building inspectors, construction subcontractors, general contractors and structural engineers, or other individuals having responsibility in the design, construction or inspection process; (2) conditions, standards, and practices relating to the design, permitting, construction, alteration and inspection of buildings; and (3) conditions, standards and practices relating to insurable risks, liability, and insurance coverage.
required to retake only the portion of the examination on
which he failed to achieve a passing grade, if he successfully
passes that portion within a reasonable time of his passing
the other portion. The board or, when there is no board, the
departament shall make available an examination review
procedure for applicants. Unless prohibited or limited by
rules implementing security or access guidelines of national
examinations, the applicant is entitled to review his
examination questions, answers, papers, grades, and grading
key. An applicant may waive in writing the confidentiality of
his examination grades.

Section 40. (1) There is hereby created a Committee
for the Study of the Construction Industry which shall
encapsulate professions and businesses integral to the
construction industry. The purpose of the committee shall be
to research, review, and analyze conditions, standards and
practices in commercial and multi-unit residential
construction in Florida, to identify those conditions,
standards or practices which present a risk of personal injury
or property damage, or are otherwise detrimental to the public
health, safety and welfare, and to recommend measures to
correct or alleviate such conditions, standards or practices.

(2) The committee shall consist of 20 members, 18 of
whom shall be appointed by the Governor, including the
secretary of DPR or his designee, a building official, and, at
least, one person from each of the following fields:
architecture, engineering, general contracting, home building,
building contracting, air-conditioning contracting, mechanical
contracting, plumbing contracting, electrical contracting, and
professional laboratory testing. The President of the Senate
shall appoint one member of the Senate or his designee, and
the Speaker of the House of Representatives shall appoint one
member of the House or his designee. The legislative members
shall serve only while in legislative office. The committee
shall select a chairman from among its legislative members and
a vice-chairman.

(3) The committee shall meet at the call of the
chairman. The committee shall direct its primary attention to
buildings with concrete work where the design is based on a
compressive strength in excess of 3,000 pounds per square
inch, buildings with an area greater than 5,000 square feet,
buildings more than 20 feet in height, buildings and
structures of unusual design or methods of construction, and
buildings where complexity or special electrical, plumbing,
mechanical, or other systems require continuing control during
construction. The committee's study shall include, but not be
limited to: (1) conditions, standards and practices relating
to the licensing and competency of building inspectors,
construction subcontractors, general contractors and
structural engineers, or other individuals having
responsibility in the design, construction or inspection
process; (2) conditions, standards and practices relating to
the design, permitting, construction, alteration and
inspection of buildings, and (3) conditions, standards and
practices relating to insurable risks, liability, and
insurance coverage.

(4) The committee shall continue in existence until
its duties are terminated, but not later than June 30, 1983.
The committee shall prepare and submit to the Governor and
Legislature, not later than February 1, 1983, a report
containing its findings, conclusions and recommendations.
(5) Members of the committee shall serve without compensation, but shall be entitled to reimbursement for actual travel expenses.

(6) For administrative purposes, the committee shall be attached to the Department of Professional Regulation.

(7) The sum of $20,000 is appropriated from the General Revenue Fund to the Department of Professional Regulation for the purpose of paying administrative costs and travel expenses necessary to carry out the provisions of this act.

Section 41. Each section within chapter 466, Florida Statutes, which is added or amended by this act, is repealed on October 1, 1985, and shall be reviewed by the Legislature pursuant to s. 11.61, Florida Statutes.

Section 42. Each section within part IV of chapter 468, Florida Statutes, which is added or amended by this act, is repealed on October 1, 1986, and shall be reviewed by the Legislature pursuant to s. 11.61, Florida Statutes.

Section 43. Each section within chapter 470, Florida Statutes, which is added or amended by this act, is repealed on October 1, 1990, and shall be reviewed by the Legislature pursuant to s. 11.61, Florida Statutes.

Section 44. Each section within chapter 472, Florida Statutes, which is added or amended by this act, is repealed on October 1, 1989, and shall be reviewed by the Legislature pursuant to s. 11.61, Florida Statutes.

Section 45. Each section within chapter 475, Florida Statutes, which is added or amended by this act, is repealed on October 1, 1988, and shall be reviewed by the Legislature pursuant to s. 11.61, Florida Statutes.

Section 46. Each section within chapter 477, Florida Statutes, which is added or amended by this act, is repealed on October 1, 1985, and shall be reviewed by the Legislature pursuant to s. 11.61, Florida Statutes.

Section 47. Each section within chapter 480, Florida Statutes, which is added or amended by this act, is repealed on October 1, 1985, and shall be reviewed by the Legislature pursuant to s. 11.61, Florida Statutes.

Section 48. Each section within chapter 481, Florida Statutes, which is added or amended by this act, is repealed on October 1, 1988, and shall be reviewed by the Legislature pursuant to s. 11.61, Florida Statutes.

Section 49. Each section within chapter 489, Florida Statutes, which is added or amended by this act, is repealed on October 1, 1986, and shall be reviewed by the Legislature pursuant to s. 11.61, Florida Statutes.

Section 50. This act shall take effect upon becoming a law, except section 35 which shall take effect July 1, 1982.
COMMITTEE MEMBERSHIP

Senator John Vogt
Chairman
Engineer

Representative James Ward
Vice Chairman
General Contractor

Representative Winston Gardner
Vice Chairman
Engineer

Mr. James K. Linnan
Executive Director
Construction Industry Licensing Board

Mr. George McElvy
Architect

Mr. Edwin F. Heyer
Engineer

Mr. Armand Mouw
General Contractor

Mr. Charles King
Air Conditioning Contractor

Mr. Glen Warren
Mechanical Contractor

Mr. William Bradley
Engineer
Member of Board of Professional Engineers

Mr. Dan Fulford
Professional Laboratory Testing

Mr. Charles O'Melia
Building Official Engineer

Mr. Michael Kaney
Florida Concrete and Products

Mr. John Henry Jones
General Contractor
Chairman, Construction Industry Licensing Board

Mr. Stanley Jensen
Building Contractor

Mr. Leonard Miller
Home Builder

Mr. Bill Fenwick
Plumbing Contractor

Mr. Robert Hazouri
Electrical Contractor

Mr. Charles Raymond
Roofing Contractor

Mr. Dolph Hanson
Florida Transportation Builders
COMMITTEE MEETINGS

The committee has met once or twice monthly from July, 1982 through January, 1983. Public testimony has been received at each of the meetings. In addition, four (4) specific public hearings to announce preliminary findings were conducted in January as follows: Pensacola - January 6; Jacksonville - January 7; Tampa - January 11; and, Fort Lauderdale - January 12. Testimony was received from Mayors, City Managers, County Commissioners, Building Officials and Building Inspectors, Fire Service Officials, Trade Associations, Engineering Associations, Architectural Associations, individuals within all categories of the construction field and other public individuals.

Thus, the Committee has received very valuable information in both oral and written form from these representative groups. The Committee is grateful for the advice and council of these individuals.

At the committee meetings we have received excellent presentations from a number of leaders in the field of investigating structural failures. They have included Dr. H. S. Lew, who is the leader of the Construction Safety Group of the National Bureau of Standards. This group investigated the Cocoa Beach condominium failure, the Hyatt Regency failure in Kansas City and the Cooling Tower collapse in West Virginia. See Attachment C for Dr. Lew's presentation.

A presentation was also made by Mr. Dov Kaminetzky who is the President of Feld, Kaminetzky and Cohen in New York. Mr. Kaminetzky is an outstanding authority in the causes and cures of construction failure. See Attachment D for Mr. Kaminetzky's presentation.

The committee also heard Alan E. Tannenbaum, Esquire, of the firm, Becker, Poliakoff and Streitfeld in Fort Lauderdale, Florida. Mr. Tannenbaum spoke on the Appellate Court decision in the Trianon Park Condominium Association vs. the City of Hialeah case. This case found the city building department responsible for the problems encountered at the Trianon Park Condominium and thus set case law in our state. See Attachment E for Mr. Tannenbaum's presentation.
The committee received an excellent presentation from Aaron Kizer, Esquire, who is the Registrar of Contractors for the State of Arizona. He spoke on bonding and recovery funds. See Attachment F for Mr. Kizer's presentation.

Mr. Bob Welch, Bond Underwriting Officer of the Kemper Group made a presentation to the committee on bonding. See Attachment G for Mr. Welch's presentation.

Ms. Nancy Grady, Vice President, Corporate Affairs, HOW Corporation and Mr. John Warren, Director of Underwriting, HOW Corporation, spoke to the committee on the procedure the Home Owners Warranty Corporation uses in its insurance program. For their presentation, see Attachment H.

Mr. Joe Martin, President of the Florida Building Trades, AFL-CIO, and Mr. John Griffen made a presentation to the committee. For their presentation, see Attachment I.

The committee is grateful for the time spent and knowledge shared by these thoroughly knowledgeable experts in the construction field.
RECOMMENDATIONS OF
THE
COMMITTEE FOR THE STUDY
OF THE
CONSTRUCTION INDUSTRY

Senator John Vogt, Chairman
February 1, 1983
ITEM 1 - BUILDING DEPARTMENT/BUILDING OFFICIALS'S RESPONSIBILITY

RECOMMENDATION

A. Recommend the review of plans and specifications as submitted for permitting for compliance with applicable minimum codes.

INTENT

To include in Florida Statute 553 exactly the fact that Building Departments are only required to review both plans and specifications for compliance with the minimum construction codes applicable. By doing this, hopefully, the Building Departments and their governing agencies will not be liable for items included in the plans and specifications that do not affect health, safety and welfare items and items that the construction codes do not affect.

RECOMMENDATION

B. Recommend the permitting of buildings, structures, and modifications to existing buildings for construction in accordance with the submitted plans and specifications which comply with applicable minimum codes. However, responsibility of the Building Department/Building Official for plan review, field inspection, and issue of certificate of occupancy shall be limited to items on the plans and specifications that affect only the health, safety, and welfare of the general public or building's occupants. (Specifically excluded from the Building Department/Building Official's responsibility shall be architectural features not related to the health, safety, and welfare of the general public and/or occupants.)

INTENT

A companion requirement to A. above with the same intent of restricting the Building Department liability as regards permitting buildings/structures and issuing certificates of occupancy for the same.
C. A threshold building is defined as follows with the exception of residential structures three (3) stories or less in height and buildings or structures as defined in Florida Statute 481.203(7) and Florida Statute 481.229:

1. All buildings or structures with a total floor area in excess of 25,000 square feet.

2. All buildings or structures more than two (2) stories in height or more than 25 feet in height.

3. All buildings or structures of assembly occupancy in excess of 5,000 square feet.

4. All buildings or structures of unusual design or construction methods, as determined by the Building Official.

INTENT

To define a building/structure to apply certain requirements and responsibilities for all involved in the permitting, inspection and certifying occupancy, designing and construction. ALL includes architects, engineers, construction contractors and building departments.

RECOMMENDATION

D. For all "threshold" buildings, the Building Official shall require a qualified special inspector or inspectors to inspect all of the on-site constructed structural components of the building related to the health, safety and welfare of the general public or occupants.

A qualified special inspector shall be present at such times as designated by the Building Official when on-site construction is in progress for which the special inspector is responsible.

The building owner shall defray the expense of the employment of the special inspector. The amount, method and procedures of the expense payment shall be determined by the Building Official.
The special inspector, whose qualifications are acceptable to the Building Official, may be:

(1) An employee of the Building Department;

(2) A Florida registered architect or engineer or any other person or firm recommended by the owner, who shall certify to the Building Official that, to the best of his knowledge, he has observed the on-site construction for which he is responsible for inspection and that the construction complies with the permitted plans and specifications.

**INTENT**

To require that the owner of a construction project of a "threshold building" provide funding for the employment of an inspector at all times that construction of the structural framework is going on. The inspector could be an employee of the Building Department or an architect or engineer, Florida Registered, acceptable to the Building Department. In this case, the inspector must certify his inspections to the Building Department.

**ITEM 2 - CERTIFICATION OF BUILDING OFFICIALS AND CONSTRUCTION INSPECTORS**

**RECOMMENDATION**

Based on the fact that many municipalities already require voluntary certification for their Building Officials and Construction Inspectors and in an effort to provide uniformity and assure satisfactory construction in accordance with applicable codes as they may affect the health, safety, and welfare of the general public or occupants of the structures, it is recommended that a mandatory statewide Building Official/Construction Inspector Certification Program be implemented by the State of Florida. The recommended program for mandatory certification of Building Officials and Construction Inspectors should conform to Senate Bill SB-38 as filed in the 1983 legislature with the following exception:

Amend Section 2.(3) to read:

(3) Those persons certified and/or registered by the following programs may apply prior to July 1, 1986 for exemption from taking the examination:
(a) The Building Official's Association of Florida
(b) Broward County, Florida
(c) Southern Building Code Congress, Int.
(d) Chapter 471, FSS, Engineer licensure
(e) Chapter 481, FSS, Architect licensure
(f) Council of American Building Officials.

INTENT
To require mandatory certification by the State of Construction inspection personnel. The recommended legislative bill is Senate Bill 38 introduced in the 1983 legislative session as corrected on the attached bill. An explanation of each intention of each paragraph of the referenced bill is as follows:

Section 1.
(3) The board referred to is the State Board of Building Codes and Standards.

Section 2.
(1) The board is to have one year after the effective date of the law to establish a certification program. The board shall certify persons meeting the requirements of the law and the rules that the board is empowered to establish.

Section 2.
(2) To establish broad guidelines for the board as to the mechanics of the testing process.

Amend Section 2.(3) to read:

(3) Those persons certified and/or registered by the following programs may apply prior to July 1, 1986 for exemption from taking the examination:

(a) The Building Official's Association of Florida
(b) Broward County, Florida
(c) Southern Building Code Congress, Int.
(d) Chapter 471, FSS, Engineer licensure
(e) Chapter 481, FSS, Architect licensure
(f) Council of American Building Officials.

NOTE

The intent of this section is that the board must certify persons who hold certification or registration currently in the organizations listed above without examination or who obtain certifications prior to the cut-off date referred to in Section 2, Paragraph (8) of the bill. After the cut-off date, the board shall not recognize the listed organizations certifications or registrations and shall require an examination from all applicants.

Section 2.

(4) The board shall have the duty to establish all the different categories of construction inspectors, experience requirements, etc. These rules shall be promulgated in accordance with Florida Statute 120.

Section 2.

(5) Establishes the fee schedule maximums for the board to use. The fees established should make the program self-sustaining financially with no burden on State revenues.

Section 2.

(6) Establishes the fund for deposit of all fees.

Section 2.

(7) Gives the board power to revoke or suspend for violations of its rules established by Florida Statute 120. Sets a two (2) year period for renewal/retention of the certification of an individual.
Section 2.

(8) Establish a date three (3) years from date of enactment of the law after which all construction inspection personnel employed by counties and municipalities must be certified by the State. Also sets penalty for non-compliance. This paragraph would give all currently employed personnel reasonable time to become certified in the positions that they currently hold.

Section 2.

(9) Standard paragraph stipulation Home Rule powers.

ITEM 3 - FURTHER STUDIES

RECOMMENDATION

It is recommended that additional committees be appointed to review the construction practices pertaining to minimum codes and inspection of construction for Board of Education projects as well as state and federal government projects.

INTENT

To indicate that there is a statewide problem regarding the permitting, inspection, code requirements and other construction controls on state buildings and federal building construction projects. Generally, these types of projects, by current laws, are not subject to local control even though local agencies are responsible, in most cases, for public safety maintenance after occupancy such as police and fire service.

The committee feels that these identified problems are beyond the purview of this committee but should be the concern of future legislative study committees.

ITEM 4 - PERMITTING FEES

RECOMMENDATION

It is recommended that each county and municipality in Florida deposit all building permit fees in a separate special trust fund to be used exclusively for funding the cost of operation of the county or municipal building department.
INTENT

To insure that building permit fees shall be used only for necessary funding of strictly building department functions required by local ordinances and not be diverted to other governmental agency activities. As an example, use SB 319 as introduced in the 1981 session by Senator Henderson except include City Commissioners in Section 1.2 and add the following to Section 1.2:

All building permit fees shall be held in a separate trust fund account to be used exclusively for funding the cost of operation of the building inspection department.

ITEM 5 - PROFESSIONAL ENGINEER, STRUCTURAL CATEGORY

RECOMMENDATION

It is recommended that a category "Professional Engineer, Structural" be added to Chapter 471 (the Professional Engineer's Law).

Three years after the enactment of this recommendation no engineer except those certified by the Board of Professional Engineers as "Professional Engineer, Structural" shall sign and seal structural documents for buildings or structures equal to or exceeding the threshold building.

To attain the title of "Professional Engineer, Structural" an applicant must pass an additional sixteen hour structural engineering examination. This examination shall have four, 4-hour sections covering relevant structural engineering analysis, design and detailing, safety, code compliance or established design criteria and liability.

An applicant for the structural examination must have a Florida Professional Engineer's license plus a minimum of three (3) years of certifiable structural design experience.
All existing professional engineers who wish to be certified as "Professional Engineer, Structural" shall qualify and pass the structural engineers examination within three (3) years after the Enactment. Registered engineers who have been practicing structural engineering fifteen (15) years or more may apply, within three years after the enactment for exemption from taking the exam. The State Board of Professional Engineers shall enact rules for applicants requesting exemption from the exam.

**INTENT**

To require additional structural engineering experience and the passing of an additional specifically structural examination by a registered professional engineer to certify more adequately to the engineering board the ability to supervise design and detailing of structural systems above that of a threshold building. The concept of a secondary advanced structural exam has been adopted successfully in several states for protection of the public from inadequately experienced engineers. In no other field of engineering is detailing experience and construction observation so important to the safe completion of significant structures for assembly occupancy. Current exams are marginal in structural content and the announced revised versions soon to be adopted are even less specialized in structural options. No other single action can be anticipated to achieve as great an impact on structural engineering adequacy as additional certifiable structural experience and a properly constituted specialized examination.

**ITEM 6 - PROFESSIONAL REVIEW OF WORK**

**RECOMMENDATION**

During the construction phase of any buildings or structures equal to or exceeding the threshold building it is recommended that the minimum state building code be revised to make it mandatory that the architects and/or engineers be retained by the owner to provide at the completion of the work, in writing to the Building Official, that, to the best of their knowledge, the construction complies with the applicable codes and the intent and design of the permitted documents.
A. All alternate product and/or systems applicable to building codes shall be submitted to the building official for review and compliance with codes and made part of the building department's record set of permit documents.

B. All shoring and reshoring procedures, plans and details shall be prepared by and sealed by a Florida registered engineer. A signed and sealed copy of all shoring documents shall be submitted to the architect and structural engineer and the building official. Each shoring and reshoring installation shall be supervised, inspected and certified, to be in compliance with the shoring documents by the general contractor.

C. All plans for buildings and structures required to be signed and sealed by an architect or engineer shall contain a statement that, to the best of their knowledge, the plans and specifications comply with the applicable minimum building codes.

INTENT

To mandate professional involvement during the construction phase at the owner's expense for all buildings or structures above the threshold. Many problem buildings evolve from construction without professional observation of the contractors efforts. These buildings generally are controlled by the speculative developer with little or no desire to achieve quality construction.

A. Current codes require that changes to the original permit drawings be submitted to the building official for review of code compliance and to be filed with the original permit drawings. Failure to report changes is a code violation. It is the intent of this recommendation to re-emphasize the need to comply.

B. To enforce stiffer requirements on construction phase shoring operations including system design, material and connections, and particularly to proper maintenance of shoring and of reshoring systems. More accidents detrimental to health and safety occur during the construction than during occupancy when contractors are permitted to utilize construction methods and procedures of their option.
ITEM 7 - ROSTER OF ALL REGISTERED ENGINEERS

RECOMMENDATION

It is recommended that the Department of Professional Regulation prepare a Roster of all Registered Engineers in the State of Florida. Such a roster shall indicate the engineer's examined discipline.

INTENT

To provide to building officials, on request, the status and the specific discipline of practicing consulting engineers.

ITEM 8 - ALTERATIONS TO STATE MINIMUM BUILDING CODE AND F.S. 471.003

RECOMMENDATION

It is recommended that the State Minimum Building Code and F.S. 471.003 be altered so that any reference in it or its adopted codes as to who signs and seals drawings and specifications of record be as follows:

(a) The Electrical documents for new buildings or additions requiring an aggregate service capacity of 400 amps or more on residential electrical systems or 800 amps (220 volt) or more on commercial or industrial electrical systems, costing over $50,000, or any structure of public assembly in excess of 5,000 square feet shall bear the impressed seal of a Professional Engineer.

(b) The plumbing documents for new buildings or additions requiring plumbing systems with more than 125 fixture count or costs over $50,000 or any structure for public assembly in excess of 5,000 square feet shall be prepared by and bear the impressed seal of a Professional Engineer.
(c) The Fire Sprinkler documents for new buildings or additions which include a fire sprinkler system which exceeds the cost of $1,000 shall be prepared by and bear the impressed seal of a Professional Engineer.

(d) The Heating, Ventilation and Air Conditioning documents for all new buildings or additions requiring a 15 ton per system capacity or where the occupant content of 100 or more persons or any place of public assembly in excess of 5,000 square feet that has a Heating, Ventilation, and Air Conditioning system with a cost of $50,000 or more shall be prepared by and bear the impressed seal of a Professional Engineer.

(1) Except for such systems that consist of replacement or repair of existing systems where the work does not involve the alteration of a structural part of the building or consists of work on residential structures of one, two, three or four family type.

(e) Any specialized mechanical, electrical or plumbing documents for new buildings or additions which include medical gas, oxygen, steam, vacuum, handling of toxic air systems, haylon, fire alarm, security and security alarm, etc. which has a system cost of $5,000 or more shall be prepared by and bear the impressed seal of a Professional Engineer.

**INTENT**

To mandate engineering design and professional certification on critical electrical and mechanical building systems above established minimum capacities.

**ITEM 9 - DELETION OF "FLEET" PROGRAM**

**RECOMMENDATION**

It is recommended that the Florida Statute Number 235.26(2)(e) be amended to delete the "FLEET" Program as mandated by the Department of General Services because it is obsolete and replace it with the requirements of the State of Florida Energy Code.
INTENT

To eliminate the expense to the state of performing mandatory inconsequential energy data accumulation exercises for use in the DGS computer program when other credible state of the art methods are available.

ITEM 10 - CONTINUATION OF CONSULTANTS COMPETITIVE NEGOTIATIONS ACT

RECOMMENDATION

It is recommended that the Florida Statute Number 287.055, the Consultants Competitive Negotiations Act be continued in its present form.

INTENT

To perpetuate selection of the most qualified professionals for governmental design projects by a proven legal selection process that ensures economical professional services of high quality which produce economical life cycle construction.

ITEM 11 - RESPONSIBILITY OF THE BUSINESS ENTITY

RECOMMENDATION

Recommend the Florida Construction Industry Licensing Board Practice Act be changed to hold the business entity equally responsible with the qualifying contractor in the event of disciplinary problems. These changes might be as follows:

Section 489.105(4), Florida Statutes

(4) "Qualifying agent" means a person who possesses the requisite skill, knowledge and experience to supervise, direct, manage, and control and who by definition in this act is responsible to supervise, direct, manage, and control the contracting activities of the business entity with which he is connected and for jobs for which he has pulled the permit and whose technical and personal qualifications have been determined by investigation and examination as provided in this act, as attested by the department.
Section 489.119(7), Florida Statutes

(7) All individual proprietorships, partners, officers or trustees of the business entity as well as the business entity itself, including but not limited to corporations, partnerships, construction managers and joint ventures, as stated on the application which shall be maintained current with the department, shall be subject to disciplinary action for violation of applicable laws and rules. The qualifier and the business entity performing the construction shall be directly responsible for the health, safety and general welfare in connection with the structure. After probable cause is found to exist and an opportunity to respond to the charges has been afforded pursuant to Chapter 120, the following penalties may be imposed by the board:

(a) Imposition of an administrative fine not to exceed $5,000 per count or separate offense;

(b) Conditional approval or refusal to approve future business entity applications containing the name of the subject.

INTENT

Presently the qualifying contractor is the only person that is held responsible in disciplinary matters. The Board cannot move against the business entity. This loophole allows unscrupulous persons to obtain new qualifiers or open new business entities with other qualifiers and evade the provisions of the statutes.

By this revision, the responsibility of the qualifier is specifically delineated relative to supervision of the project. In addition, officers of business entities will be held accountable in disciplinary matters equally with the qualifying contractor. Presently, the limit of an administrative fine is set at $1,000. This change will raise the limit of the fine to $5,000 per count or separate offense.
ITEM 12 - QUALIFYING MORE THAN ONE BUSINESS ENTITY

RECOMMENDATION

Recommend that the licensee can qualify one business entity within the scope of the license. Approval by the Florida Construction Industry Licensing Board must be obtained to qualify a second company.

INTENT

Presently a qualifying contractor can qualify two business entities and then must appear before the Board personally for the third or more entities. To tighten control over certain contractors that would utilize this method to "sell" his license, he would be required to appear before the Board to qualify more than one entity. This provision will have a direct bearing on the disciplinary problem of aiding and abetting.

ITEM 13 - CERTIFICATION OF CONSTRUCTION MANAGERS

RECOMMENDATION

Recommend that a primary building permit for threshold construction will only be issued to a licensed general contractor and he will be held responsible for the entire project.

INTENT

The utilization of construction managers on larger projects has been a growing trend in the construction industry. Presently there is not a licensing requirement for this type category of individuals. By requiring a construction manager to be a certified general contractor, he will be brought into the chain of responsibility and discipline.

ITEM 14 - BONDING REQUIREMENT

RECOMMENDATION

Recommend that a license bond in the amount of $25,000.00 be required for all general contractors and building contractors with active licenses. This bond would be required for the first five (5) years that a general or building contractor is licensed. This bond would apply only in the event
the contractor is found guilty by the Florida Construction Industry Licensing Board of any of three (3) specific disciplinary matters; abandonment, diversion of funds, and code violations. This bond would apply to both certified and registered contractors. All general and building contractors that have been continuously and actively licensed for a period of five (5) years will not be required to carry the bond. A general or building contractor disciplined by the board for any of the three specific aforementioned violations would be required to provide a bond for further activity.

INTENT

Presently there is no bonding requirement by the State of Florida for construction categories regulated by the Florida Construction Industry Licensing Board. The requirement of this bond of $25,000.00 for general and building contractors will provide minimum protection to the public. The bond would run only when one or more of three specific disciplinary matters are involved: abandonment, diversion of funds, and code violations as found by final action of the Florida Construction Industry Licensing Board.

Experience has shown that many contractors have financial problems at the end of three (3) years in business. Thus, the requirement to maintain the bond for five (5) years.

Many general and building contractors maintain an active license and use it to assist friends and business acquaintances. By requiring a bond, this would tend to force this type of contractor to obtain an inactive license.

All general and building contractors who have been continuously and actively licensed by the Florida Construction Industry Licensing Board for a period of five (5) years would not be required to carry the bond. However, such a contractor disciplined by the Board would be required to provide a bond for further activity.
ITEM 15 - RECOVERY FUND

RECOMMENDATION

Recommend that a recovery fund be established that would cover all contractors as defined in Chapter 489.105, Florida Statutes, with the exception of general and building contractors. The fund would be established utilizing the interest earned by the Florida Construction Industry Licensing Board trust fund and perhaps a very small payment to the fund by all contractors so covered. The recovery fund would be limited to $10,000.00 payment ($20,000.00 total for one (1) contractor).

INTENT

It is the opinion of the Committee that residential contractors would find a bonding requirement a burden. Therefore, as a measure of protection for the consumers in the State of Florida, a Recovery Fund would be established with a limit of $10,000.00 payment to an individual with a maximum of $20,000.00 payment for one (1) contractor.

The fund would be established utilizing the interest earned by the Florida Construction Industry Licensing Board trust fund. If experience shows that this amount of money will not be sufficient, then a very small payment into the Recovery Fund would be required by all contractors so covered at each renewal period.

Payment from this fund would be made only when one or more of three (3) specific disciplinary matters found in final action by the Florida Construction Industry Licensing Board: abandonment, diversion of funds, and code violations. Such a fund is currently functioning in Arizona and Hawaii at minimum cost to the contractors, yet providing protection to consumers.

ITEM 16 - INSPECTION OF FIRE SAFETY CODES

RECOMMENDATION

Recommend the responsibility at the stage of plan review and construction inspection concerning fire safety codes for new construction and additions to construction belongs in the Building Department.
Coordination with fire services is the responsibility of the Building Department. It has been reported to the Committee that dual plan review and dual inspections happen in certain counties and municipalities. It is felt the consumer is paying twice for the review and the inspections. The responsibility of plan review and construction inspections belongs in the Building Department.
A bill to be entitled

An act relating to building construction
standards, adding § 553.77(3) Florida
Statutes, creating a § 553.71 Florida
Statutes providing for establishment of a
program to certify certain building code
administration and building inspection
personnel, providing for examinations,
providing for fees, creating the Building
Inspector Certification Trust Fund establishing a
penalty, providing for repeal and amendment
and providing an effective date

WHEREAS, it is hereby declared to be in public policy of
the state that, in order to safeguard the life, health,
property, and public welfare of its citizens, the
certification of building inspector personnel is a matter
affecting the public interest, and that any person so employed
shall establish high competency and proficiency to be certified
as herein provided, NOW, THEREFORE,

Be it Enacted by the Legislature of the State of Florida

Section 1. Subsection (3) is added to section 553.77,
Florida Statutes, to read

§ 553.77 Specific powers of the board --

(3) The board shall conduct a program to certify
building code administration and building inspector personnel
in this state

Section 2. Section 553.71, Florida Statutes, is
created to read

§ 553.71 Certification of building administration and
personnel --

(1) Not later than July 1, 1984, the board shall
establish a program to certify persons to administer any
building code or to inspect any building or parcel of land within a state
or a local government. The board shall certify any person who meets
the requirements of this section.

(2) The board shall contract with an independent
testing agency to develop and administer an examination to
determine the competency of any individual seeking
 certification. Examinations shall be held at such times and
places within the state as the board determines necessary.
There shall be an examination for each of the categories of
certificates which shall pertain to the type of code or practice
by the certificate. The examination shall cover the knowledge of
basic principles of the codes and inspection practices
applicable to the category for which a certificate is
requested. Examinations shall be open book, may consist of
multiple-choice, fill-in-the-blanks, true-false, or short-answer
questions, and may include or consist of diagrams, plans, or
sketches with which the examinee will be required to
demonstrate his knowledge and proficiency.

(3) Certification by the Southern Building Code
Congress, International Inc., the Building Officials
and Code Administrators of Florida, or the
American Institute of Architects, or
the American Society of Civil Engineers, or
the National Fire Protection Association shall be recognized by
the board.

§ 553.70 Minimum requirements for certification

(1) Certification shall be evidenced by

Board of Law Enforcement Administration

25-03-83

CODING: Words in boxes that are different from existing text are inserted. Words in boxes that are deletions.
The board shall adopt rules providing specific
criteria for certification. Such criteria may include
provisions for building, plumbing, electrical, mechanical,
gas, or any other specialty certification, as the board deems
appropriate.

(5) The board shall fix and collect the following
fees:

(a) An examination fee which shall not exceed $50.

(b) A reexamination fee which shall not exceed $25.

(c) An initial biennial certification fee which shall
not exceed $100.

(d) A biennial certification renewal fee which shall
not exceed $25.

(6) Fees collected under the provisions of this
section shall be deposited in the Building Inspector
Certification Trust Fund which is hereby created to be used to
administer the certification program.

(7) The board may revoke or suspend the certificate of
any person who violates any provision of any rule adopted by
the board pursuant to this section. Certificates issued under
the provisions of this section shall expire 2 years from the
date of issuance.

(8) After July 1, 1986, no person shall administer any
building code in this state or inspect any building in this
state unless certified to do so. Any person who administers
any building code or who inspects any building and who is not
certified as required in this section is guilty of a
misdemeanor of the second degree, punishable as provided in s
775.082, s. 775.083, or s. 775.084.

(9) Nothing in this section shall limit the power of a
municipality, city, county, special district, or state agency
to regulate the quality and character of work performed by
inspection personnel or to require additional standards of
competency and proficiency of such personnel. Nor shall
anything in this section be construed to waive additional
requirements imposed by a local government or state agency
having jurisdiction in such matters.

Section 3. Section 553.781, Florida Statutes, is
repealed on October 1, 1991, and shall be reviewed by the
Legislature pursuant to s. 118.02, Florida Statutes

Section 4. This act shall take effect July 1, 1983.

SENATE SUMMARY

Requires the State Board of Building Codes and Standards
to establish a program to certify building code
administration and building inspection personnel.
Provides for development and administration of
examinations. Provides for fees for examination,
reexamination, certification, and renewal of
certification. Provides for revocation or suspension of
certificates. Prohibits, after July 1, 1986, persons
from engaging in such activities without being certified
and provides a second degree misdemeanor penalty for
doing so. Provides for establishment of additional local
standards. Provides for review and repeal in accordance
with the Sundown Act.
INTRODUCTION OF DR. H. S. LEW

Senator Vogt introduced Dr. H. S. Lew, who is the leader of the Construction Safety Group of the National Bureau of Standards. He joined the staff in 1968 after receiving his Ph.D. in Civil Engineering from the University of Texas. Dr. Lew has conducted considerable research on the strength and stiffness gaining properties of concrete and the relationship of those properties to safe and economic concrete construction. He has directed research for the National Bureau of Standards dealing with building safety during construction, studying such problems as the cooling tower collapse in West Virginia. He had investigated the structural performance of various building systems including the response of buildings to seismic and wind and earthquake forces. He has held academic appointments at the University of Texas, George Washington University and Howard University. He has written approximately 20 papers and serves on committees of the American Concrete Institute and the American Society of Civil Engineers, ANSI Construction Standard Management Board and the AISI Committee on Research Programs at Lehigh and the University of Missouri. Senator Vogt asked the committee and audience to join him in welcoming Dr. Lew.

PRESENTATION OF DR. H. S. LEW (Verbatim from Tape) *
BUREAU OF STANDARDS
WASHINGTON, D. C.

Thank you Senator Vogt. It certainly is my pleasure to be invited to make this presentation before the committee. I have been involved primarily with research dealing with safety in construction and also with the National Bureau of Standards doing investigations of the failure of structures including the Harbour Cay Condominium in Florida. What I would like to say at this time and for the record, that the opinions that I express today are certainly my own rather than the views of the National Bureau of Standards. I wish to make that clear so that no one will misquote me on that basis. Just to set the stage and give you an idea of what I am going to talk about, instead of talking a lot about the failures and instances and going into case histories, what I like to do is present to you some of the observations that are made throughout these investigations and summarize them for you. Then I would like to make a short presentation of slides which is a descriptive form rather than in pictures and subsequent to that we will open the floor for discussion. If you have any questions, you can stop me any time throughout my presentation as well as after I have finished.

When the structure fails either during construction or in service, actually everyone concerned in the building process
suffers. Of course all of us suffer as builders as well as architects, engineers, and subsequently the public. There is no question about that. We have seen many cases. The cause of a failure can be due to a number of things and if we can categorize in the large categories we can say that it could probably be design error, or construction error, sometimes even material deficiencies. Material deficiencies comes in combination with the design error as well as with the construction errors.

Suppose that the construction fails after several years, then we are not concerned with the problems that are related to construction. We are talking primarily about problems related to design problems. In the design there was an error and it shows up a few years later. Sometimes even materials deficiencies. There is one prime example that I can give you right now. There is a case in England where a particular concrete has a high mineral content aggregate and this showed up so many years later and all the buildings are falling down right now, after about ten (10) years or so. So, materials play a big role in that.

What I would like to do is after reading some correspondence between myself and here in Florida and Mr. Linnan, I would like to slant my comments primarily in the concrete construction although some of the comments and points that I will be making is equally applicable to other structures as well. It is made of either steel or wood or masonry. I am sure that all of you are fully aware of the fact that the building process is a team effort. No one particular group or particular individual then goes and finishes it, moves out and some other trade or some other people come in and do it. For example, if you have a designer who designs it and here is his drawings and specs and turns it over to the contractor to build it, he washes his hands of it; certainly this is not the desired situation. Although this often happens, ideally we do not wish to see that. For example, in order for the concrete structure to perform well as a finished product and successful product there certainly needs to be teamwork between the designers, contractors and regulatory agencies as well as the support of the testing laboratories and the concrete suppliers, and the form suppliers. These are really the integral parts of producing a successful structure.

I would like to comment on three things. One, designers; second, regulatory agencies; and third, the contractors. I wish to dwell on quality of contractors because of some of the things that I have observed. I have developed certain opinions about it. Perhaps if you do not agree with me, I will hear from you. In the structural engineering practice first of all, although an individual obtains a license through the examination process I have seen enough of the problems relating to the design that the
technical competence or a licensed structural engineer presently practicing in the United States construction industry must be questioned. I think we ought to look at it. I don't know really the answer to it, how you can really determine his competence. The engineer must be able to recognize the problems. He has to analyze it, he designs it, and he anticipates the performance of it. One of the problems right now is that construction is becoming more sophisticated. It is getting more involved. For example, if you look at the National Building Codes, for example, if we pick out the ACI Standards or any other national level standards. The requirements are getting rather complicated. One has to understand what is in there first, before really applying those provisions. The factor of safety will be cut down considerably. There are two aspects involved: One relates to the material aspect, the other relates to law aspects. We can nowadays look at the various options by means or use of computers. Traditionally we were not able to do so. We just locked in on the one idea and you avoided analysis that would offer changes to it. Here we have a computer which is used as a tool, not a decision-making tool, so we can take a look at the number of options. The situation is this the technologies keep changing and the tools which are available to us keep changing. I think that the modern engineer must adapt to that which is available to him. This is one of the deficiencies that I have seen on a number of occasions. Sometimes I have seen deficiencies in the design. I have asked the designer, have you really looked at the whole picture? Usually, there is a process to do this, there is a slide rule or hand calculator to analyze a particular structure. But we are looking at a very complicated structure and sometimes it requires a very thorough examination. I give you one example, if you were to use a system such as the one in the Harbour Cay condominium. Here you have the flying form supported by reshores for three stories. Now you apply the load on top of that roof slab which most are familiar with the Harbour Cay construction situation, you have a roof supported by a flying form subsequently three levels you are supporting with the reshores. Now you try to analyze that structure. This is very complicated effort to actually analyze the final product. Here you have a concrete slab which is continuously getting its strength. The situation is continuously changing. So at any given time the load distribution between the form system and the structure is continuously changing. That is one issue. The other issue is you are now inter­flecting all these slabs with the various members, not one or two members there are 30, 40, 50 members. It is connected by ... the slab or connected by the temporary members? It is also dependent on how they placed the reshores. Whether there was a snug fit or not. It makes a lot of difference in the actual structure performance. Now try to visualize, how am I going to analyze this structure? We have examined
it, we have looked at it. There are no simple tools available right now to design engineers to do this, unless he resorts to the use of computers. Now, ask yourself, how many engineers are going to analyze this structure using a computer? To give you some idea of this problem we used the computer to analyze that particular Harbour Cay structure which required the running of one program about four or five hours; it also requires the talent of someone to do that. I think the modern engineer must keep up with the technology that is available to him and use it. If he cannot do it, I think he certainly ought to have somebody assist him in analyzing it rather than just arrive at a gut feeling to go ahead with it. Most of the time it works, but I'm afraid that more these days that it doesn't work then we all have to pay the price.

Another comment I would like to make is that most of the time structural engineers usually get involved only in the design phase. Very seldom does the structural engineer get involved in the construction phase. There are some exceptions to that. This is my personal view, unless the structural engineer gets involved in there, I am talking about the engineer of record. Usually it is difficult for the contractor to visualize what original idea the engineer had in designing this structure. Now if it is a very simple structure, it is not much of a problem. But, sometimes we do encounter complexities even in a four, five or six floor and multi-story structures. The design engineer had a particular scheme of construction in mind, he visualized that the structure would be built in a certain fashion, a certain way. However, when the contractor goes ahead without the benefit of the engineer's ideas, and his knowledge, or when he comes up with a different scheme of construction, inevitably he can introduce damage to the structure. My personal view is that somehow the structural engineer should be involved. It would be ideal if the structural engineer would be involved in the construction stage. Even if not, I think that he ought to make his limitation assumptions abundantly clear to the contractor so that information will be used. For example, the structural engineer ought to get involved in such things as a review of shock points, suggestions and review of construction sequences, and actual visual on-site observations, these are seldom carried out. I am sure some engineers do, but most engineers don't. Perhaps he is not fully compensated for his time due to that sort of service. Certainly, the owner should provide a separate provision to pay for this service.

I think the full-time inspection of a structure during the critical stages of construction by the original designer is a highly desirable thing. There are various ways to go about instituting such a procedure, but I think this is highly desirable.
I hope that this committee will come up with some recommen-
dation along this line so that somehow the designer can
become more involved in the actual construction stage. Not
necessarily personally, but by some means of communicating
his thoughts and original design ideas to the contractor
so he can incorporate them in the construction scheme.

Now one last factor that I would like to point out is in
the design situation. Some of you probably know that in
Europe the use of the peer review process has been accepted
for a long time. In a structural design, before it is
executed there is a peer review by one of his colleagues who
has been appointed to review the plan. His time is well
compensated for. Sometimes his fee is as much as the
designer's fee. However, there is a certain guarantee
that an individual that is not involved in the project will
have a chance to make an objective review. We all make
mistakes. Nobody is perfect. We all make designs that
require a certain amount of review. This is the desirous
thing to do. On the other hand, in the United States there
exists a reliance by the public that the building department
and regulatory agencies do this job protecting the public
safety. It is quite common throughout the United States in
both small and large municipalities. Some thought should
be given as to whether or not this can be done. From what
I have observed, most regulatory agencies do not have the
manpower. This is a number one issue. They just don't
have the manpower to review all plans and specifications
coming in. They don't have the time to go out and review
the drawings at the site and see the construction going on
and see whether the two match. You just don't have enough
manpower. Even if he does see the drawings, in some cases
the technique and sophistication is not there. Let's say
somebody comes in to a building department and submits
reams of computer output and says here it is, here are the
numbers, and according to these numbers I have designed it
properly. I'm not sure how many building departments in
the United States are capable of analyzing the structure
using a computer, to check over whether that computer
solution is adequate. More and more engineers are using
computers. What are the building officials going to do
with these computer numbers if they don't have the capabil-
ities to handle them? You need to think about that.

Certainly I think that the review by a peer is one solution
if manpower is not adequate. Further, if sophistication is
not there, this is a solution. It is not really the solu-
tion, but it is a solution. Something to think about.

Now in the construction area we have traditionally excluded
the engineers from all responsibilities concerning the
construction of a structure. These include the means of
construction and the methods used and the sequence of
construction. I think there are good reasons for this.
First, traditionally, the architect or the engineer do not have the means to do anything about the construction. Secondly, he does not have any idea what sort of methods or means that the contractor will use. Therefore, there has been little involvement. However, today we are using more and more sophisticated construction procedures, highly mechanized. I think the engineer ought to become more involved in it. One way this problem can be overcome is to have the free-flowing communication between all parties involved -- engineer, architect, and contractor and the subcontractor. Communication plays a very, very important role. If certain information is not passed on to the contractor, he has no idea what the engineer was thinking in the specific design. One example, strength of concrete for form removal. This would be one of the factors that can be stated in the specification or on the drawing. The drawing would be better. I'm not sure how many contractors actually go out and ask the engineer, hey, I'm going to put so much load on a specific floor, is it okay? By the way it is a national law that the contractor must check with the engineer prior to placing the load on a structure. In case you are wondering, it is in provision 1926 of OSHI. OSHI covers all construction areas. That is part q of 1926. Before a contractor places any loading on the structure still under construction, the contractor shall check with the engineer to find out whether or not that structure is safe to support such a load. Now I know that many contractors have run into difficulties that are structural failures or partial failures and a citation is issued. On that very particular account, because he has violated the requirement. So this is something to think about and communication has to be there.

I want to say a little more about the common construction situation with the aid of slides.

This is a summary of what I have observed. (Slides)

Cause of Construction Failures:

(1) Technical Issues
   a. Technical Shortcomings
   b. Procedural Shortcomings

(2) Inaccurate Assessment of Construction Loads
   a. Vertical Loads
   b. Lateral Loads
(3) Inadequate Design of Falsework
   a. Design Error
   b. Inadequate Provisions for Load Imposition
   c. No Reasonable Allowances for Tolerance
   d. No Provisions to Prevent Collapse

(4) Poor Field Execution
   a. Absence/lack of bracing

(5) Failure of Communications
   a. Pertinent information not given to falsework designer
   b. Inadequate information on construction drawings
   c. No feedback to falsework designed when site conditions differ from design

(6) Failure of Inspection

After we have examined the number of failures being investigated one of the questions we ask ourselves is "are the present standards adequate to deal with it". Do we need some additional information in order to improve the standards so that information will be available to the contractors. We should review the existing standards to see if a sufficient amount of information is there to guide the contractors. Compliance to Standards 20 CFR - The contractor has the responsibility for providing a safe working environment for workers. ANSI Standards, National Standards, OSHI Standards, Building Codes, State Requirements, 29 CFR. Falsework should be adequately designed, allowed support, braced, maintained.

   Design Loads for Construction
   Design Calculations
   Load Conditions
   Load Factors or Safety Factors
   Criteria for Form Removal and Load Imposition:

   Criteria set by an engineer
   Test of field cured concrete

Bench Marks - minimum concrete strength location.

Maintaining Records

Quality, proportions, mixing, placing and curing of concrete,
reinforcing placement - form placement and removal; construction loadings, test of materials.

Personal Training

Detailed Procedure Manual
Knowledge of Important Details

The establishment of a benchmark for each stage of construction is needed. This should be specifically stated in the construction plan.

Let me explain to you what I mean by that. Construction loads, I don't have to go through that. You can see we are talking about deal and live loads and some of the impact loads that we have stated. Type of agents must be specifically laid out so that if there is any doubt whether or not a particular form system is adequate to support any loads somebody can go and check immediately. That the calculations can be immediately made available to the contractor and the check can be made right away. The removal of forms and loading imposition criteria set by the engineer. This can be the engineer of record or the engineer who is on the staff of the contractor or retained by the contractor. Test of fusion of the cylinders. This is all specified. This is not my view, these are the things that we get out of the national standards. This is what they call for. The benchmarks should include those items. Maintain records, sometimes when we go out for an investigation of a failed structure it is very difficult to find all those items. Particularly curing of concrete, very seldom is there any record available. You always like to know while trying to investigate a failed structure how the concrete was cured. Sometimes even if you have cylinders, and I have seen some contractors, not in this area, but in the Washington, D.C. area, for some reason put the concrete cylinders during the summer time in a box packed with ice. I asked why do you have this in ice? I know the reason though, the reason is that he is misinterpreting the ASPM Standards. The intent was not to keep the cylinders in a wooden box packed with ice. I am trying to point out to you that sometimes the standards themselves are not clear. It doesn't say clearly the intent of the standards.

Lastly, I would like to point out to you some things that are very important. I mentioned to this committee and the people that I had lunch with, I have had the opportunity to travel to the other parts of the world to find out why some countries, construction accident records are better than the United States. As an example I refer you to Japan. The fatality rate and accident rate is very, very low. And yet, if you look at the scaffolding they use and the
perimeter of protection and fall they use it puzzles you. However, the workers stay with a specific company all their lives. That is their sole job and education, what they have to do, and they are very competent. I think the education plays a very, very important role. In our country the situation is not like that; the laborer that comes on the job is here maybe a week, maybe two days and you never see him again. There is no time to educate him. It is not cost effective. This is something that all the contractors should keep in mind to educate their workers to provide a safe working environment.

This concludes my comments and my presentation and if you have any questions that you would like to discuss with me, I will be pleased to do so.

I certainly hope that the quality and the practice of the construction will certainly improve as a result of this committee's effort. I think, I'm not quite sure, but this is probably the first of its kind in the United States. I am not aware of any other state having this sort of meeting and examining all aspects of construction to improve the safety of construction.

Thank you very much.

* This presentation was taken from recording tapes. In some instances the tapes were not understandable. Therefore, an attempt has been made to provide the reader with our understanding of the substance of the speech delivered by the individual.
INTRODUCTION OF MR. DOV KAMINETZKY:

Senator Vogt introduced Mr. Dov Kaminetzky who is the President of Feld, Kaminetzky and Cohen in New York. He is a civil engineering graduate of the Technion Institute of Technology, Haifa. He has a master's degree from New York University and is a licensed professional engineer in several states. For thirty years he has been investigating construction failures and analyzed the causes and cures of structural distress resulting from natural as well as man-made cases in construction of concrete, steel and masonry. In addition, he has diversified design and construction management experience which includes highrise apartment and office buildings, prestressed concrete designs, unusual structures, suspension roofs, pollution control and marine structures, and large foundations and excavations. He is a professor at the Graduate School of CUNY where he teaches a course on construction failures. He is a fellow of the ASCE, a member of the ACI and the New York Association of Consulting Engineers and National Society of Professional Engineers. Let us welcome Mr. Dov Kaminetzky.

PRESENTATION OF MR. DOV KAMINETZKY (Verbatim from Tape) *

PRESIDENT - FELD, KAMINETZKY AND COHEN
NEW YORK

Thank you, Senator - thank you members of the committee. When I got this phone call to appear before you and to give you the benefit of some of my experiences, I couldn't resist because I have been critical of the way the construction industry has been going on for many years and criticized it in many lectures all over the country. I think here is one possibility to speak up and say what you think is wrong and how to correct it. I think that is basically the reason that I was asked to come here. When I say, and my personal opinion is not ACI's opinion or anybody else's, but I have seen all those failures for over 30 years, I've seen all types of failures. Therefore, I believe I know what causes construction failures and why the construction fails.

We speak about material failure, we speak about structural failures and so on. My experience over the years shows there is really one basic type of failure - human failure. This is really what it is. There are the famous apocalypse horses that have been referred to for many years. They are negligence, greed, ignorance, and carelessness. I know after many years that these actions are the source and base of every single construction failure that I have seen. Further, any construction failures that we will see in the future will be related to any one of those four reasons. It is not necessarily the technical reason which causes failure because it was not made properly by an
individual designed the structure that failed, the one who constructed it failed and so on. The basic failure is a failure related to human traits. We fail, like we fail in many other things. We have financial losses, and we have many other human failures as well. I repeat, the failure again is not technical. For this reason, there is only one of the four cases that I mentioned before, the ignorance cause, that we could improve on. Ignorance has to do with communication, and ignorance could be controlled by some legislation. Before I finish today I will tell you of some proposals which I think should be followed in our construction process. Some of these proposals have been used elsewhere, however, I don't know if they have been used in the State of Florida. I recommend to you from experience that they should be used if they are not already used now. We also know that the biggest number of failures we have are in new construction. High inefficiency is really not typical construction failure. It is unusual because it has failed after its usage. It was not subjected to proper review and it failed after completion. The failure that we do have during construction is in concrete where we have form work failures. In the construction of steel we have primary failures due to insufficient bracing. The structure collapses because it is not braced properly due to wind and the bracing structural failure before structure is completely enclosed and incorporated with the legitimacy for which it was designed. We have failures in structural steel as well. However, these four causes of failures is what we really have to address ourselves to. I don't think we are concerned here with technical aspects causing failures. I have many criticisms of the codes that we have today as related to factors of safety. Also as related to definition of aged structure. When we build a structure, we do not build it for a certain amount of predetermined years. Somebody doesn't come and say, I would like you to design this structure for me to last a hundred years. I want you to design a twenty year structure for me, fifty years and so on. Unlike the auto industry we buy a car. We don't expect it to last for fifty years or so, rather, it has a certain life expectancy. In the building industry we don't have that determination. We design buildings without the time relationship. We do not relate the life of a structure to the type of design and the technical structure. I don't think that you are interested to know about my criticism and my proposal of how to improve the concrete codes in relation to sheer failures which we see quite often. Because sheer failures is one of the most prevalent type of failures. It happened in Boston, it happened in many other cases. I have a whole tray here of 140 slides from various failures. I don't think you would like to see them because it would take a long time and I don't think that is the purpose of my being here. I'll run through some of these just to give you an idea of
what is happening and the fact that you will see any type of failure that you wish to see in construction. This is a failure of concrete and steel, sheer failure, waterloss failure, unstrength failure, condition failure, subsequence failure, lateral pressure failure, wind failure, etc. We have failures because of those. Primarily they are failures because the construction itself is not sufficiently strong to resist the loads, to reach with the shoring or that the actual load is higher than the load to be assumed that this structure is subjected to. In relation between those two is what we call a factor of safety. That is by itself a lecture for quite a number of hours. I think you are interested most to know what we could do about improving the construction methods and the process of getting the construction built from A to Z. Now, number one of the sensitive points in construction, Dr. Lew mentioned, is that question of inspection. The problem in inspection is the fact that either you do have inspection or you don't have inspection. You either have a good inspection or a poor inspection. Now, what we do have, first of all is mandatory inspection, namely, the law has to require inspection. Let me explain how it is done for instance in New York. New York has one of the more rigid, stringent construction laws in the country and from that point of view my experience has been good. I believe that the system works very well. There are various kinds of worries of what is a classified controlled inspection. Namely, items that are critical and should be inspected. Now I refer to the controlled inspection items: electricity, mechanical, etc. Any areas where elements which are stressed at more than 50 percent of their strength. Strength is critical. Those items must be inspected. How is it done? The design engineer, the one who filed the design plans, has to file a form, a controlled inspection form, in which he states that he will inspect that or he designates another professional engineer to do the inspection. Which means the cycle is closed. However, what happens many times in many law suits, the owner says, I don't know anything. I hired an engineer, he made the plans and I didn't know I required inspections. The engineer didn't tell me I required inspection. Whether it is right or wrong or he was just looking to save himself costs is another story, but that's usually the excuse. He didn't know he needed inspection. The result was there was no inspection. If we have court requirements that say the engineer of record that filed the original set of drawings must file the form, I think it is 4-F, he will inspect or designate Mr. White who is a professional engineer to do that inspection. This way we know that somebody will inspect the structure and we know from that point of view we will have an inspection. One point I would like to leave you with that has worked, although not used in many states, but I think it is an excellent method of achieving inspections on the project. As far as form work is concerned, in 1955, up to that time, we were not too aware
of the fact how critical form work design is to the safety of our construction. The famous coliseum collapsed, I don't know if anybody here can remember that, which was really one of the very monumental collapses. As a result, all form work has to be designed by a professional engineer for that, any structure to support more than 150 pounds a square foot, superimposed load, to be designed by a professional engineer. Any double tier form work has to be designed by a professional engineer and so on. Those categories are very clear. What it does is force the professionals experienced in design form work to the point that he can design it and take responsibility. The form work is a structure subjected to any type of load that the final structure is subjected to. For this reason, in my opinion, it has to be designed by a professional engineer who is experienced and qualified in design form work. It can be one who is working as a consultant to the contractor. Not the design engineer itself. However, that should be left to the contractor to hire whom he wishes. It must be a professional engineer who is experienced in the design of form work that will put his seal and signature on it. This way the contractor has the control of the structure, he has control of the course, and we are not going to force on him an expensive form work that would cause him to lose his competitive edge here. The contractor has to be left with an open responsibility for the design of his form work the way he wishes. The safety is ours, we tell him you construct it the way you want, but you must have a consulting engineer who will design it for you and will sign it and seal it. It has been done successfully in New York and I frankly do not recall any major form work failure in New York since 1955 after this change to the law. Even though I say no major failures have happened, believe me, they will happen, because failures are human related and we are never going to eliminate them, we can only minimize them. However, I believe this form work system, by having people who are qualified, experienced and knowledgeable design form work, we are going to improve the quality of our temporary construction.

I believe that such a system should be added to local building codes. I think there is no question that the dividends for that extra cost will improve the codes.

What I would like to do now is just to show you some slides on failures we have been involved with and each one of those obviously could have been avoided had there been any one of those safeguards I mentioned above.

Those buildings with wood trusses should be inspected every five years. In my opinion, there should be a requirement for inspection of buildings. All buildings should have an inspection requirement. A building over 50
years, in my opinion, should have a requirement by law for inspection every five years or so to bring them to the point that a special engineer can certify that he has inspected the building and found it is in reasonably good shape and so on. The liability involved here is what an engineer can see visibly. Even if the building collapses the next day, after it got a good report, there is nothing much you could do unless there were signs in evidence prior to that which that engineer should have known or noticed and he did not. Other than that there is not really much we can do. At least we know that we would have this examination every five years of all structures. I do believe that we would save some problems in the future.

NEW SLIDE:

You had some collapses here, I think it was in Miami, there was parking on the roof and it was probably that deterioration of the building due to salt. In my opinion, if some of those old structures had been reviewed and examined on a regular basis or interval we could avoid some of those problems. What we have to have is a regulation or law that requires buildings over a certain number of years, whether it be 50, 60 or 75, to be checked on a regular interval by an engineer. New York, for instance, instituted what they call a facade law which just came out in February of 1982. A law which requires every owner of buildings to inspect the outside of his buildings once every five years. This was a result of a few accidents resulting from the falling of masonry, stone, marble. In a particular accident, a girl was killed. As a result of such accidents, this law was issued where an owner of buildings is required to have a professional engineer inspect and issue a report every five years on any corrections resulting from the review. Unless you make it a law it will not be done.

Anything above six stories or above comes under that.

NEW SLIDE:

Premature removal of form work caused one of the collapses shown. An insufficient number of reshores can cause a collapse. If you took the ACI, 347 committee requirement, of which Dr. Lew is a member, there are some methods there, as well as the ACI green book which will show you how to design shores. Your main drop would have two or three number of reshores. That's all subject to good control of quality and cost containment. I don't believe we have such good control in examining the actual strength of the concrete. Dr. Lew was talking about taking those cylinders and putting them in refrigeration, thus trying to control them in one method or another. Some of the cylinders, we think, are kept in the room or secured
somewhere else. We do not really know exactly where the strength of the structure is placed. For this reason, we cannot exactly use the data we obtained from those tests. In my opinion, public safety requires us to go a little beyond that. By having some building requirement codes to follow we can achieve that. A highrise building that is over 10 stories must have at least so many lines of reshores. Again, that's the difference, in my opinion. It is a very small cost to pay. The safety requirement in my opinion is very high. But this is exactly what's happened here. Most of those failures occurred during the cold months. December, January, February and so on. The months in which we do not have very great acceleration to the concrete and we are curing, a concrete which has not matured properly. We can take a cylinder and test it, but still that particular location that we have would still be under strength. The second thing is that we have what we call progressive collapse. That is a collapse of a domino effect. It takes one shore to fail followed by this effect. Then, two adjacent shores to take the double load and if they are not sufficiently strong you are going to have a progressive collapse. Also involved are used materials. Shores are being used again and again in construction - five or six times. Some of them bent, some of them broken, some of them cracked. They are not straightened. I am giving you a very, very brief picture of how crude the type of construction they are using here. Speed is a factor here. Cost is a factor. For this reason, we have to make some safeguard. As I said before, the number of reshores used in construction of this nature is one of those safeguards that could be used. Obviously checking the strength before stripping and so on -- this is all in the codes. This is all in the ACI 347, so I'm not changing anything. I am suggesting some things which are not in the codes, which I believe if they had them in a locality, I think we would find some pretty good safety structures. This shows the removal of the bearing wall. Somebody went over cutting a door, obviously the doors were framed, and what you see here is this old parking deck that came down because the bearing walls were removed. Any changes should be checked by the engineer and he should file plans for the changes. I have no idea how it is done here in Florida, what type of changes, what type of alterations or modifications requires a signature of a professional engineer. Sometimes some public code will permit the contractor to file for changes, because all he does is remove some partitions. You obviously know that those partitions are just space dividers or whether those partitions are really load bearing as the case was here. The consequence of that error is quite obvious.
That is an overload. An auditorium that failed under the overload. However, when we started to review these problems we find many other factors involved. This system was a specialty system that was used here. Again, a specialty system, I'm not knowledgeable how that is treated in the Florida law. Specialty system is not only a system that would not be just designed by a customary analysis and so on. It has to be tested. It should be variance required. Whoever wants to use a new system must perform various tests and bring it to some kind of an agency. In New York State we have what we call a Board of Standards and Appeals. This is a special agency that examines all of those new materials and new systems and looks at and reviews the tests, and then they vote whether to accept that new material or not. New materials are a problem and they have to be examined before they are used on constructions.

The Hartford collapse you heard about. It was a very monumental failure. Luckily nobody was hurt. There was 5,000 people in there before it came down. However, it was empty when it failed. That's been going on the courts for many years. There are various opinions about what happened. Whether it was design errors, which many people feel, but there are always some other problems. It depends on the investigators to find out the failure. There is always one factor we can point to and say, without that particular factor the failure wouldn't have occurred.

This failure happened because of a change of the design. They changed the amount of soil that fell on top of it and at the last minute, it was 1.5 feet, they changed it to 5 feet. That was a simple overload, because the structure itself was not changed. Again, changes must be filed through the Department of Buildings, they must be approved by the Department of Buildings, and they must be put to the site. All plans must be kept at the construction site. Any changes again filed and approved at the construction site will ensure we can avoid some of the problems which you see here.

Here is another view of the same failure here. It happened I think about 8 or 9 years ago. In 1972. The investigation showed that everything was wrong at this
building. From the beginning, the concrete was very low strength. The reshores were applied improperly. Four people couldn't get out. There was about a one minute notice before the collapse. A peer review might have prevented this. Again, peer review is not a guarantee, however, in my opinion, they will reduce the amount of failure.

NEW SLIDE:

This is the old coliseum failure. Here the contractor used buggies for transferring the concrete which is one of those requirements where you have to have a special engineer design the form work. Where you have to have mechanical buggies which exert the lateral load. In that kind of structure you must have the design filed by a professional licensed engineer and this way we will see if we can minimize the possibility of failure. Here the building collapsed without warning and two people were killed. Comparing the area of collapse with the number of fatalities it is still rather low. One of the problems here was two level shores. One shore on top of another. Again, I'm not telling you anything new here. Anybody following the design according to the present ACI 347 Standards could have avoided that failure.

NEW SLIDE:

That is a failure in the Washington, D.C. area. Crystal City, in which ten people were killed. It was a very unusual sequence of construction here. It was not made clear to the contractor as to the level of construction which was supposed to end below a level. In other words, something was supposed to be under it. Another failure which was not there yet. It was as simple as that. That particular problem was not clear.

NEW SLIDE:

You have problems with shoring, form work here. You have problems with heavy load shores and reshores that failed. All those were not designed properly in accordance with the present codes. An omission by somebody not doing what he was supposed to do. Our society decides and selects our factors of safety which basically means what price are we willing to pay for simple public safety.

This presentation was taken from recording tapes. In some instances the tapes were not understandable. Therefore, an attempt has been made to provide the reader with our understanding of the substance of the speech delivered by the individual.
INTRODUCTION OF MR. TANNENBAUM

Senator Vogt stated that the presentation was on the recent Appellate Court decision regarding the Condominium Association versus the City of Hialeah. He said Mr. Alan E. Tannenbaum who is the legal counsel for the association in this case would be the speaker. Mr. Tannenbaum is with the legal firm of Becker, Poliakoff and Streitfeld of Ft. Lauderdale. He was previously a staff member of the Senate Appropriations Committee before beginning his law career. Senator Vogt said they were very glad that Mr. Tannenbaum could speak before the committee to go over the implications as he sees them of that decision and the floor would be opened for questions following Mr. Tannenbaum's presentation. Senator Vogt welcomed Mr. Tannenbaum.

PRESENTATION OF MR. ALAN E. TANNENBAUM (Verbatim from tape) *

LAW FIRM OF BECKER, POLIAKOFF AND STREITFELD

FT. LAUDERDALE

I feel that before I begin to speak that I should let everyone know my bias, obviously as Senator Vogt announced, my law firm, I am a partner in the law firm. We have 21 lawyers. Our main representation is of condominium associations. In fact we represent around the State about 450 town homes and condominium associations. On the east coast from Key West up to approximately Stuart and out on the west coast we represent associations from Naples on up to the Tampa area.

Basically the type of disputes that our firm gets involved in surround internal disputes and condominium associations who have to enforce their rules against unit owners who live in a complex. Also, a large part of our representation involved disputes between associations and developers and other entities in the construction industry, including at this point in time, as the case law has progressed, municipalities and counties. I think it only fair to say I speak from a plaintiff's point of view, but I think that may give you folks a viewpoint that you may not have gotten up to this point and it may be helpful to you.

I have been a construction lawyer in the firm for 3.5 years. We have 6 lawyers in that section and we deal with construction disputes mainly on the part of condominium associations and on the other side of the lawsuits generally are developers, contractors and in some cases architects/engineers and now again the cities are being brought in as defendants.

The majority of the suits MA from new construction where the association takes control from the developer and as time progresses there are observable signs of alleged
defects engineers are brought in to survey the buildings, further defects may be found and from that point lawsuits eminate against the various parties who are involved in the construction.

What occurred within the last ten years is that the situation law generally as a regards to the development industry has moved from the situation where it was basicall-ly a legal principle of caveat emptor which was buyer beware. Basically, ten years ago and preceding that point once you purchased realty in the State of Florida and most of the country you were responsible for any defects that may have existed in that property from the time you purchased it. In the last ten years the situation has turned completely around to a point where the home owner or the purchaser whether it be a condominium unit or a home has tremendous protection against the con­tractor/developer and now the cities when any defects may appear. There is a multitude of theories that have been sustained in the appellate courts. I'm not going to go into them because I want to limit my discussion to what has occurred against the City of Hialeah.

I think it would help to understand that the case against the City of Hialeah innates from a basically ten year pattern in this State where the trend has gone very much toward the consumer in the area of home purchase. Almost to the extent that the purchaser of a home is probably has the same legal rights as someone purchasing an automobile or an appliance. They can go against the manufac­turer or developer, they can go against the seller, now the inspection authority.

The case that Senator Vogt mentioned, the Trianon Park vs. the City of Hialeah case - the third district just came out with an opinion that sustained liability on the part of the City of Hialeah for the negligent building inspec­tions or alleged negligent building inspections. What I am going to do - my talk is a little bit broader than I thought had been announced before as I understood it. But what I want to do is go through the case and then at the end give some general comments as to how I think from the plaintiff's point of view, the inspection process can be altered so that there will be better construction practices and less chance of a city finding itself in difficulty as far as legal responsibility.

Before I get into the facts of the case, I need to go back into the law just a little bit. Prior to 1975 the cities and counties were generally immune from liability in tort. This was a historical principle gone way back to the common law in England that the sovereign could not be sued - it
dates back to the time when the king's carriage was riding along the highway and a child ran in front and was killed by the carriage. It was established at that point that in those type of cases, the king could not be sued. This doctrine of sovereign immunity was basically firm in this country up until about the last decade. There were some exceptions. In Florida, prior to 1975, a government could be sued in tort if it was undertaking what we call the proprietary function, which is basically operating as a business, operating a water plant that, where water is being sold to more than one jurisdiction. If a county operated a parking lot - that's more of a proprietary function and in those cases, the sovereign could be sued. In other areas where there is insurance coverage, for instance, a number of cities, in fact most cities have insurance coverage on their city vehicles so that if a bus had an accident and there was insurance coverage to cover the parties who were injured, so when there's insurance coverage, there is also, they are open to liability. And the last area was with what used to be tour of the special duty, general duty, where a city government owned a special duty to a particular class of plans - instead of general duty to society as a whole, where there was a special duty, there was also liability. But in all other areas, basically, cities - counties - were immune.

Interestingly, there was a case involving building inspections, I believe it was a 1953 case, Modlow versus the City of Miami Beach. In that case, a mezzanine in the mall collapsed and killed somebody and City of Miami Beach alleging that they allowed, failed to properly inspect, and they allowed this mezzanine to eventually fall, and what the Supreme Court eventually held in that case was since the City of Miami Beach did not have a special duty for that one particular person who was injured, there was no liability. In 1975, the situation changed when the State of Florida, the Legislature waived sovereign immunity in Florida. Now, there were limits to it - limited up to $50,000 per person and $100,000 per incident. This means that under that statute, even if someone had a million dollars worth of personal injury, their recovery was limited to $50,000 but there was a provision, and that statute still exists, that anything above the statutory limits, the plaintiff can go to the State Legislature and ask, and a special bill for recovery over and above what the statute allows, and that still is on the book.

What occurred in the courts after that is the cities and counties were still arguing even after the waiver of sovereign immunity, that those common law principles I mentioned before, the proprietary function distinction and the general duties, expensive duty distinction were still alive. A very key case came down in 1979, Commerical
Carrier, the Supreme Court decided that those old distinctions no longer had any life after the adoption of 768.28 which was the waiver of sovereign immunity. But the court did part out a very narrow exception of activities that were immune from suit. And the court labeled these "planning level functions". Within the opinion, they put a very concise definition, planning well all of those decisions which require basic policy decisions whereas the operational level functions, which are the ones that are not immune from liability, were the actions of the municipality or state agency that implemented policy. From that point forward, there have been a number of law suits in the Appellate Court, that have gone through the Appellate Courts, and in each case the city or the county was claiming that their activity that was being questioned was a planning level activity, the plaintiff said, no - it's obviously operational level activity.

What the court did come down with, basically, is that once the government decides to act, it has to act in good faith, reasonably, and if it fails to do so, it could be held over for tort liability. Just as a simple example, there have been a number of cases on the pruning of shrubs at intersections. Where there have been traffic accidents because of shrubbery blocking the view, and cities have been sued because they failed to trim the shrubs. What the cases have come down, very interestingly, and I think it makes a point, was where the city had not undertaken, or not made the decision to prune shrubs in every intersection, there is no liability. Because they never made the decision, the policy decision to prune shrubs. But in other jurisdictions, where they actually had a policy, that we're going to prune shrubs at intersections, and they laid down the specific requirement that their building department or maintenance department, had to go through, then that particular situation would be open for liability, so, the key is once you've made the decision, once the government makes the decision, to act in a particular area, the undertaking of the activities, once the policy-decision making is accomplished, is open for liability.

Now, getting into the City of Hialeah case, remembering those principles, let me go into the facts of the case. It was company project permitted in 1973 - it was to be about a 180 unit project. After about two years of construction, and 60 units were completed, except for some finish-work, the developer went bankrupt, and the project sat for a year. Interestingly, they made some changes in the project, their amended plan and initiation of their portion of the construction began in 1975, which was the key date for the waiver of sovereign immunity. They completed the construction in 1975 - in 1976, the city made it's mandatory inspections under the South Florida Building Code. In November 1976, it issued its C.O. In April of 1979, there was a major roof failure at the condominium.
It was a rather heavy rain, and what occurred was the roof failed - 49 out of the 65 units were inundated with water. Several of the unit owners were forced to completely leave their residence for as much as six months to a year before proper repairs could be made. So, it was a very severe flooding out of the number of units - it wasn't a fairly typical, where you see a roof spot occur in a couple of units, when a roof is starting to go, this roof failed at that point. The City was contacted and engineers were hired by the association. The engineers surveyed the structure and what was found and proven at trial was that there was a number of serious code violations and plan deviations at the project. In the roof, the plans called for a twenty-year built-up roof on the main rooms and also the same type of group on the lower corner roofs. What the developer had done was put a polyurethane type roof on the lower corner roofs. The upper roof fell far below the standard of what a twenty-year roof is the industry experts testified. The flashing detail was improper - there was no cast strip, the aggregate embedment was inferior, the drains, there were basically two very tiny drains for a fairly massive roof, which was one of the main causes for the flooding. As to the other areas of the building, there was combustible wood on the exterior of the building, which violated the South Florida Building Code. The plan group would come in, they constructed some new unit entrance alcoves. Interestingly, there was no plan on the architect's plan for tying the block work into the present construction, or it occurred that every unit entrance alcove there was serious cracking along the face - with the new construction, the new alcove was added to the structure and that was a code violation on the face of the plan. There was underground parking underneath the structure, and the South Florida Building Code required a three-hour fire proofing protection between the parking area and the first floor living unit above it. The testimony was, what was there basically, was less than a one-hour fire proofing construction. There was a stucco barrier that was supposed to be placed, that was in the plans, that was not constructed out there.

The expansion joint, which ran, there were two expansion joints that ran through the building - it was a rectangular building, basically three floors, at each level of the project, the expansion joint was covered over. The roof, it was covered over with roofing material. On each floor, it was covered over with Chattahoochee, and it was also covered over with vinyl floor, and on the walls, it was stuccoed over. What occurred, is that all throughout the building, after a season or two, the roof began falling apart at and above the expansion joint, and the Chattahoochee was cracking along the expansion joint, the stucco was cracking along the expansion joint.
Basically, the evidence showed that there were missing cleanouts and they had backups in the building for as long as three years, and what they located - the contractors went in before trial and located a position at the project where the backup seemed to be emanating from, they opened that up, and what we found was the main underground plumbing line with the hole at the top for the riser to come up to the surface to the clean-out - there was no riser, there was just an open hole with construction debris in it. It was at that point that the backup had emanated from. There were a number of other problems related at the project. There were some minor things - there was a wood roof hatch, which was combustible and violated the Fire Protection Standards for Roof Surfaces. The Exit Signs were not placed in proper places so that they could be viewed according to the code from all areas of the building.

Now, prior to trial against the City of Hialeah, the developer at Flagship Bank agreed to pay $153,000. The trial went strictly against the City, now, the action against the City was based upon negligent review of plans, failure to see that the building was constructed according to plans, failure to see that the building was constructed according to the code, and failure, and negligence in the issuance of a certificate of occupancy when there were plan deviations and code violations throughout the structure. The damage claim and I think alot of people have a misconception that in order to collect in suits for construction defects, you have to have a personal injury - that's not true at all. The element of damages in these type of cases is basically the cost of repair replacement. So, even if you had a latent defect, that had not caused any considerable damage, if it's a code violation, then the plaintiff is entitled to recover it.

And the damage is, what the contractor estimated it's going to take to bring that component up to code compliance, or up to plan compliance, that's the issue. The jury came back after the - let me tell you what the city testified to, which is interesting. First of all, they took the deposition to the building official and I'm not chastising the building officials in the City of Hialeah on this act, because many building officials, some departments are very good, and some are very poor, very frankly. In this particular case, these inspectors, in deposition about four months before trial did not know their building code. They did not know the fire protection requirement. They did not know what the roof requirement were. They did not know, every issue that we had was what the requirements were, what their duties were. Interestingly, in trial all of a sudden they had become educated and they knew the code and they knew the section. And, that was brought out in trial. They were ill prepared to inspect just on the base of the fact that they didn't know the law, the rule that they were, by statute, authorized to uphold.
The Jury came down to a judgment of $291,000 against the City. They were entitled to a set off for the amount that was recovered from Flagship and then the trial reduced the recovery to $50,000 under the waiver of sovereign immunity statute. We argued that the association was entitled to $100,000 because it was a class action and we nearly were the representative of the 65 owners there, so we were entitled to the per incident coverage under the statute. The trial court disagreed and limited us to $50,000.

There were two appeals, the city appealed us to the Third District Court, which sits down in Dade/Monroe County. Arguing like I mentioned before, that this building inspection activity was a planning level activity, under this Commerical Carrier Case.

We filed appeal arguing that we, the Association was entitled to $100,000 under the per-incident level of recovery under the statute. What the Appellate Court found basically was that building inspections and the other activities of the building officials were operational level activities, basically falling under the same preface that I mentioned before, that the decision of whether or not to inspect construction within a locality - that decision is the planning level decision involved in the process. Once a determination is made, in this case, by the State Legislature which mandates the adoption of building codes throughout the State, in Dade County it's by in that their own rule they adopted their code by ordinance. But either way, the determination is made to inspect, once that determination is made, the undertaking of inspection, certification, plan review, is operational level, therefore, the city is not immune, city or county.

Interesting things within the face of the opinion, the Court upheld the fact that not only were the building department's obligation to review the structures for compliance of the building code, but also to review the construction of the compliance of the building plans and specifications. In the Trianon Park case, there were no specifications, so they didn't mention that, but I think that followed.

The second part of it, the city was basically arguing that because there was a high amount of disgression involved with building official activities, that they should have been classified as a planning level activity; that was rejected and the court stated, I'll paraphrase the court, that most of the operations of the building official involved measurements and enforcement of the building code as written and are not, don't involve the level of disgression that would bring it up to the level of the planning level function. It may be a situation in this case, and lawyers will tell you this, that dead facts don't make the best law. In the City of Hialeah case, the code violations
were very obvious, the plan violations were very obvious. There are engineers that try to testify that, how can a building official tell that the cast strip wasn't there? You walk up to it, you could cut it open to see if it's there, or you just kick it. How do you know if the gravel's embedded properly? Well, that's something you can do visually to an extent. How would you know if the fire proofing break between the parking lot and the first floor? Well, I looked at the plan, and I looked at the structure itself and you could see that the proper fire protection wasn't there, with a little bit of analysis. The same thing with the combustible wood. I mean, you have wood on the exterior and the code doesn't allow it, with that type of residential construction. It's just something that the building official could see. I think this case should have been settled, because the facts were so strongly in favor of the plaintiff, but this is what happens when a decision like this goes up on appeal, the court uses the facts in this particular case to make a general statement of law. Perhaps, in another case, they may have felt that the disgression was maybe to the level of bringing it up to a planning function, but the Trianon Case did not bear that at all, but unfortunately until it's altered, it is going to be the law in the State of Florida at this point.

As far as the Association's appeal, the court's found that the Association was correct - since it was a class action, they were entitled to a per-incident level of recovery, which was $100,000. The City is now attempting to bring it up to the Supreme Court of Florida, but very frankly, I don't think they have the jurisdictional grounds to get up there, and I think, unless the court certifies it as a question of great public interest, which is fairly rare, I think Trianon will stand until another district court finds otherwise and goes up to the Supreme Court on conflict jurisdiction. Now, I don't want to get too lengthy. I just want to make some general comments using the Trianon Case and the facts there to talk about those things that maybe you folks may be interested in. I've divided it into a lot of areas, and I don't want to hit anyone's sensitivities, but take this as what it is really, a plaintiff's perspective as to how the situation can be improved.

Like I said, there are a number of good building departments that do their job. There are a lot that don't. The first area I want to talk about quickly is competence. The, this is not a personal attack against the building official in the City of Hialeah, basically, his experience prior to becoming a building official was that he worked in the water/sewer department. He had very limited construction experience - maybe twenty years before he had come to the
city to work in their water and sewer department. He didn't know the building code. He admitted he didn't know the building code. As I said before, the building inspectors admitted that the plumbing inspector knew the code, the other inspectors, the structural, admitted in deposition that they were unfamiliar with many of the provisions of the code. I think, my point on competence is that I don't think that every building inspector needs to know the code front and back, but I think there is a need to have at least one knowledgeable person on a building staff who understands and has knowledge of the code where an inspector out in the field can come to that person as a source and say, I have this situation out in the field, what's your interpretation, how should we handle this particular situation? There was no such person on the City of Hialeah staff that the inspectors could have even gone to, so I think there is a need for some training mechanism, where at least one official in every building department can go and have training to learn the code - now, I know there is a certification under the Standard Building Code that you can be certified, that's a step in the right direction, but I think it needs to be more intensive, I also think it needs to be updated, because the code's always changing. New construction materials are always coming out of the market, and I think there needs to be someone in every department who can make these decisions at the level, the City of Hialeah didn't have someone.

The second issue is workload. There, the City of Hialeah is quite a large city, the second largest city in Dade, and probably ranks up in the top eight of the largest cities in the County. In 1975-76, when there really was a boom in construction, they had two structural inspectors for the whole City of Hialeah. They testified at trial that some of these inspectors were making as many as twenty in one day, including six or seven final inspections on major projects in one day. What this means, and what was related at trial was there was no way that they could undertake the duty that's required under the code - at best, they could go around and look at the various areas of the building - superficially, and look for some exterior items that could be seen visually, but as far as getting into the guts of the project, absolutely impossible. When you're going on a ray of twenty inspections a day, including some major pile inspections, so that's maybe more of a rap on the city governments than it is particularly on the building departments. Obviously, if they're over-burdened they can't do the proper job.

The third area, and real quickly, an area - plan review - in a number of depositions of building officials that I've taken, and this seems to be a major area of problems, I think a lot of building departments, the ones I've talked
to, basically just look for an architect's or engineer's seal on a set of plans, and that, except for a bit more review, basically the review that they do - other building departments, and I've seen it, will send the plans back five or six times to the architect to modify particular areas of the building and they do an excellent job of plan review, but there are a number of building departments, that basically, they see a stamp on it, they'll stamp it approved, and the plan goes through. One problem that I see, and it occurred in the Trianon Case, is that plans are being allowed to be submitted when they're not complete. Where areas of the structure are not fully detailed, so that as the project proceeds, there is no way for the contractor out in the field to determine how the architect wanted it - the architect is not there anymore. Basically, it's built as the contractor may feel he wants to build it, he may not know the code, or feel he is responsible to know the code. That occurred here with the unit entrance alcoves in Trianon. There was, as the code requires, there was no anchorage plan, in the architect's revised plan for these alcoves. There was no detail as to how the block was going to be tied into the existing structure. The end result was there was cracking along the face. Well, that was a code violation on the face of the plans because that detail should have been in there. What I've found - fire proofing is a very good example. A lot of plans go through, without showing an architect's detail for unit partitions in high rises, or ceiling roof assemblies in "down home" type structures, it gets through without a fire proofing plan on the architect, they just put a detailed fire proofing report in the code. Well, I don't think contractors relate to that. I don't think a lot of contractors, the Fire Board Contractors will read that and say I'm going to find out what the code is and I will put the proper fire board in there. He's going to do what it says under the contract, so there's a gap there, I think there is a great need for detail as far as plans go.

Another problem, during the process of inspection, where the particular feature exceeds the expertise of the building official. What is the building official to do? Well, under the South Florida Building Code, into a little bit less of a degree, the Standard Building Code, the building official has a lot of power - one, he can require test results on various component structural - you see concrete reports coming through. There are other reports - fire proofing reports, for instance, if you get a new ceiling roof assembly, new type of configuration, that you haven't seen, and it isn't specifically one of the code allowed areas of construction in the code that's detailed - well instead of taking areas of construction in the code that's detailed, well, instead of making a judgment, it looks
okay to me, have the developer or contractor submit a testing report from a fire testing lab - would this configuration meet the standards, and I think these test results and other types of proof, for instance, you know, show me the asphalt ticket that's being delivered to the site so we can assure that the proper asphalt is being put on the roof. Other types of certifications can assist the building department. Quite common about special inspectors, and I think this committee, some of your work is related to the problems that occurred over in the east coast when the building collapsed. General comment that I've seen on special inspectors as being the entity that a building department looks for expertise in a certain area, the obvious problem is under the present situation, the special inspectors paid by the developer, there's a lot of pressure on the special inspector to get a building through - obviously, with the interest running on a project each day the hold-up is going to be looked very negatively by the developer and the special inspectors that are looking for future business, there's a lot of pressure on special inspectors. Some of them do a very good job, again, and some of them, maybe do not live up to their code of engineering ethics when they do these things, but those folks got to survive, too, out there.

I figure improvement over the special inspectors' situation, and again, this is going to cost money, would be the hiring of independent consultants that could render an opinion in a specific area of construction that is above and beyond what the building official or inspector would be able to handle, and as far as where those funds would come from, I think obviously you folks are much more capable of making those decisions. I think the independent nature of the special inspector would greatly improve what they're willing to call out and may help solve some of the problems.

The last area I want to get into, and this is going to touch some sensitive cords, but, I think it needs to be said. Just a general area called attitude.

There are a couple of problems that occur, because I think, what I've seen, a lot of building officials, and again, there are some exceptions, I know that there are some very good building officials in fact, in North Palm Beach, I know do their job properly. The thing that I need to say here - one you have the problem of building inspectors being former industry people - you know, the plumbing inspector, the plumbing contractor - being in the same area for twenty years before he became the inspector. The structural inspector is a local contractor. The building official was a material supplier. Obviously, and this falls through in all areas, of government regulation, you can't expect the most fervent type of inspection and review by
people who were formally affiliated with the same industries. But that's true in every industry.

A second difficulty, and I think will ease the building officials a bit, is pressure from the legislative level at the city government. Obviously, there is a very heavy pressure, and this has been the pressure all through the seventies, to get more cash dollars. So, when a project is being constructed, obviously the politicians in town are interested in getting that project completed, getting and increasing the tax base for the project, so there is a lot of pressure at the local level because they are hired or fired, generally by the city manager or other forms of government by the mayor - heavy pressure to get a project moving, get it certified, permitted very quickly, get the inspections accomplished, get them their seals, so that we can get people moved in there and increase their tax bids. Well, at that point, you have accomplished, obviously, the city's got an interest to support its government and meet its tax money, but at the same time, you have the conflicting interest of making sure that people are going to be eventually living there and have safe and stable construction.

And in some jurisdictions, what also occurs, obviously, developers are very powerful in the community - they support campaigns and I'm sure every building official has had the experience of getting a call from a commissioner or councilman or the mayor, saying look, you know, why don't you see what you can do for my friend, here, because you seem to be holding him up ... Be a little more lax with this guy, because you know, he's been good to us - that occurs too, and that again puts the building official in a very troubled position, obviously, if he was being completely independent and not listening, the next time he comes up for review for his position, he may have a few councilmen or commissioners against him.

On the other hand, if he completely listens to the mayor and council and lets a project go through a building code violation, he's got problems.

A third problem that I see as far as attitude - obviously we're dealing with a bureaucracy. Some building officials do an excellent job. Other building officials that I've seen are only concerned with basically keeping their civil service positions and not cause too many waves and just stay in their position and make sure there's no problem. Well, that means you have to come back in two weeks to see if they corrected it. And, you have to do more paperwork, you have a pile of paperwork. You have to come back if they didn't do it right the second time, and you have to issue another violation and come back the
third time. It makes your job harder. So, I think that we are all pressed for time, that it means more work and because it is a bureaucracy and people are protecting their jobs, they may not do the best work. But that happens in all areas of government - I used to work in the legislature and one of the things I know is with senators and representatives is they pass a law and some areas of the bureaucracy would end up altering the intention of the bill by basically dragging their feet and enforcing or undertaking the activity that the legislature mandated. That's a problem throughout government, not strictly limited to building inspections.

The last area that I want to talk about very quickly is corruption. Again, I'm not chastising the City of Hialeah, but there was a memo that we found during the trial - there was a couple of memos where, when the Flagship was coming in to revise the permit which had already expired basically under the provisions of the code, there was continual reference to "our man in the city". Well, we never really pointed out who it was, it wasn't necessary. There have been, and I think that you folks know there have been whole departments that when investigations have begun, the whole department has resigned. That's another problem, and again, that's not a problem just for building officials, but any governmental type inspector wherever you are, needs to be addressed.

My final thought on this, you know, we have debated in our office and with our engineers, that maybe it would be better to take the inspection function away from the cities and counties and make it a state function. An example, is the elevator inspection. The State of Florida has elevator inspections. To tell you the truth, I've been through a lot of construction law suits and I had very few problems with the engineers that have called down relative to elevators. Because it seems like the State elevator inspectors may be doing a good job. Now, why it's hard to say, but I think one thing is obvious, they're away from the local pressures - the other problem occurs, though, on the other side of the coin, that there are peculiar local problems that maybe the state cannot recognize and the type of inspections that's necessary in an urban area like Ft. Lauderdale is different from the inspection you may be doing in a rural area. So that, the statewide inspection program may not meet the standards, may not be applied correctly.

I think generally, the local building departments are able to do their job, in proving that there are a number that do their job, I think what the Trianon Case will do in retrospect is basically going to put some teeth into the code. A building official in a number of areas I
mentioned are no longer going to be able to overlook code violations and plan deviations in order so that he wouldn't have more work to do - the cities are going to be forced to hire more inspectors, and I think, going along with that one point that I didn't mention is that the permit fees have been artificially low for a long time, I think, if funding should come from anywhere, it should come from the developers when they get their permits. I think the state should help out too, but the permit fees have been artificially low. I think things are going to change based upon the Trianon Park decision - I think we're going to get more competent officials, there's going to be better training, you're going to get all the bureaucratic lag, and I think maybe Senator Vogt will back me up on this, one of the reasons sovereign immunity was waived in Florida was to get a message to bureaucrats around the state that you're going to have to start enforcing the law, and undertaking your duties properly, or else, there's going to be a bite on the city's purse. I think that was one of the intents of waiving sovereign immunity in the State of Florida, the frustration of the legislature, in passing provisions, in passing the safety codes and watching them in the case by case basis not being carried out - I think the Trianon decision falls just from that type of principal.

Thank you.

* This presentation was taken from recording tapes. In some instances the tapes were not understandable. Therefore, an attempt has been made to provide the reader with our understanding of the substance of the speech delivered by the individual.
INTRODUCTION OF MR. KIZER

Mr. Aaron Kizer is the Registrar of Contractors for the State of Arizona. He is an attorney and the State of Arizona is unique in the fact that it's the only state I know that has both bonding and recovery fund requirements. Aaron is the author of the Recovery Fund and I think you will find it very interesting the approach that Arizona has taken in this manner.

PRESENTATION OF MR. AARON KIZER (Verbatim from Tape)*
REGISTRAR OF CONTRACTORS
STATE OF ARIZONA

Thank you Mr. Chairman, committee members. It is a pleasure to be back in the beautiful state of Florida again. The last time I was here was three years ago, shortly after I was appointed Registrar. Jim Linnan was hosting the National Convention of NOPLA, the National Organization of Professional Licensing Agencies. I was very impressed by the program that is being developed in Florida by Mr. Linnan and the board here and I made a conscientious effort at that time to take some of these ideas and concepts back with me to Arizona which we have tried to do. And it's personally gratifying to me to be here today to share some ideas that we have developed in Arizona. Hopefully, you will be able to get something out of this topic and maybe I've got what you will need here.

I'm going to focus primarily this morning on the recovery fund system. I know that most of you are familiar with bonding rules and I noticed on the agenda that there will be another speaker who will get into that topic in detail.

I'll start off by pointing out that there is no right or wrong to the concept of bonding or recovery fund. Purely, what is the best alternative for your own situation. One of the things I like most about the recovery fund is it can be modified to fit the particular needs of the localities. For example, Hawaii was a pioneer and we've made several important changes in the Hawaii system to meet the needs in Arizona because there is no right or wrong way of developing a recovery fund and it can be adapted and modified substantially.

In Arizona, we license only residential contractors. This is a relatively new change for us. It's only about two years old. We dropped the state licensing requirement for commercial contractors. Residential contractors are defined as a builder of a house, townhouse, condominium, or apartment complex of less than five (5) units. It also includes all pertinent structures of that such as
a swimming pool, landscaping, fencing, things like that. No state or county or city license is required for commercial construction. We do have of course the local building permit requirement but no state contractor's license requirement.

This may change again. There's a move under foot to re-regulate and it will be proposed to the State Legislature in January, but, I don't know whether it will succeed or not.

Basic requirements for licensure is four years of experience in the particular trade, taking a business examination, something in Arizona law and business practices and also a trade examination. For example, a plumber takes the plumber's trade test as well as the business management test. We also require that a license bond be posted ranging from $1,000 to $15,000. It will vary on the type of license and the volume of work that the contractor anticipates he will do. That bond can be posted in the form of cash, an individual comes in and writes a thousand dollar check; it can be a surety bond; or a certificate of deposit. The difference between cash and a certificate of deposit is that with the "CD" the contractor draws the interest back himself. With the cash financial stages are paid. I should briefly distinguish this from a performance bond. But I'll exercise this. A performance bond is issued by the surety company to cover one particular project and the rest is beneficiaries of just that one project while with the license bond, that covers all the work done by the contractor under his license. And in Arizona, it's subject to claims by the materials supplier, the subcontractor, laborers, and the property owners. So, all these groups can go in after the license bond in Arizona.

We found, when we studied this in some detail, that collections against the license bond came out basically, 58 percent of the recoveries were by material suppliers and contractors. Unions and laborers recovered another 23 percent and consumers recovered 19 percent. So, we could see that the vast majority of money was going to non-consumer groups out of the license bond system. And it's pretty obvious when you think about it, why this should be the case. Particularly with material suppliers. They are more sophisticated in the legal process. They generally have an on-going relationship with an attorney and are able to go to court quicker when there is a problem such as a default on payment. Frequently, the consumer will look to areas of getting the problem fixed rather than going directly to court, so they may spend six months or so pursuing a complaint before an administrative agency, then realize that the contractor is insolvent and then decide to go to court. And, by that time frequently the money is already exhausted.
Another thing we found with surety bonds, in particular, was that the bonding companies will frequently require substantial collateral prior to lending the bond. For example, it's not uncommon in Arizona to have a 100 percent collateral requirement prior to writing a $1,000 bond so you have to come up with a $1,000 in collateral.

We also found surety companies to be somewhat arbitrary at times as to who they would write a bond for. Sometimes the decisions were made for reasons that we could not understand. They seem to be rather subjective rather than base it purely on financial or economic reasons. We felt because of this that in order to increase the bond substantially to get meaningful financial protection, it basically makes thousands of contractors unbondable forcing them to become unlicensed. As you can see, the bond range that we have in Arizona, $1,000 to $15,000 is very insignificant. A $1,000 which is our specialty class license bonding requirement is really peanuts in todays market. It's like plumbers, electricians, roofers, and things like that. It's very, very minor protection there. Well, we felt that we were going to get it up to meaningful level, many of the contractors would be unable to get bonded and therefore unable to get licensed. Also, another thing that we found is that the bonding program is a headache for us to administer as an agency. The reasons being that a lot of people were involved with the surety bonds. All of a sudden we had to change sending the bond; if the premium is not paid, they send us a notice of cancellation of bond; we have to then suspend the license and to do all that internal work to suspend a license and then if it's reinstated, the premium is paid, we have to reinstate the bond. That generated a lot of clerical time in our office. We examined what Hawaii had done with their recovery fund and went through a tremendous two year debate in Arizona. This was a very highly contested issue and by no means is there even a consensus on this whole theory now. But we studied it very heartily and we formed a committee similar to this one. We promptly got up what had happened in Hawaii who were the pioneers of the recovery fund in 1974 and we heard a lot of misinformation about the Hawaii experience, that it had gone bankrupt, things like this. We examined that closely and found that really there is no major problem there and that the program is working well as far as we could see and decided to go with it.

I should mention that Virginia was the second state to adopt the Hawaii, technically the recovery fund system. That was in 1980 and Arizona started ours in July of 1981. It is being studied by several other states. In fact I'll be going to Nevada next month to make a presentation to their board on the recovery fund system.
When we started in July of 1980 in Arizona, contractors were given the offer of, they could either pay $75 into our recovery fund or post a second license bond for $10,000. The difference between the regular license bond and the $10,000 bond is that it is subject to claim only by residential property owners. So you can see we excluded all the non-consumer groups from going after the second bond or the recovery fund.

We also felt very strongly that contractors should be given the offer since the initial proposal was to go with the great recovery fund system that Hawaii has. For many reasons, including political ones, we decided or the decision was made that we would use both systems. Since we've had both systems of license bond plus recovery, I felt that it was only right to give the contractors the offer and not force anybody into recovery fund. Of the 12,000 contractors who are licensed in Arizona, only 300 chose to go with $10,000 bond. The rest chose to go with the recovery fund. The first year's premium was $75. The second year it was brought to $36. We'll start assessing the third year's premium January of 1983 and we expect that to be zero dollars. In exchange for the money paid into the recovery fund, the contractor receives $10,000 worth of protection through the recovery fund system. In other words, we will pay $10,000 in claims against a contractor's license. Of course if he has more than one license, that escalates, $10,000 for each license. We will only pay $5,000 per plaintiff. So if two people come there with maximum claim, we will pay each $5,000 and then after that $10,000 is exhausted, we will not pay any more money. You have a ceiling on the recovery fund, I believe, otherwise you're in the position of one tremendous claim coming in and either you're bankrupt or you have to go back and assess the contractor hundreds of dollars. So there is a danger there.

As I mentioned, we pay only to the residential property owner or lessee. In order to recover you must go in to Superior Court, initiate a law suit against the contractor and give notice to our office. At that time we will request that the plaintiff get three bids from licensed contractors through the sheriff, we will also go out and view the job site to verify what the plaintiff has given us. At that time we will be able to independently assess the amount of damage we believe is appropriate. If we're in harmony with the plaintiff's claim and in all but one case so far we have been, then we do not intervene in the law suit, and we allow it to go to judgment. Upon the judgment being entered against the contractor, we issue payment from the recovery fund and suspend the contractor's license.
The license is not allowed to be renewed until repayment is made to the fund and all total losses of the judgment plus 10 percent interest. This is a feature that I particularly like. It's a self policing mechanism and it avoids having to go through an administrative hearing to also suspend the license, frankly it's done by court process immediately automatically. Another nice feature that I like about this is all the principles on the license are barred from being relicensed until that money is paid back. I'm sure you get into full dispute, the frequent cry of "well, my partner's the bad guy, I was just like everybody else and therefore you should let me get another license" or "I'm just the corporate secretary, I didn't know anything about what was going on, and don't penalize me". We decided by law to not recognize any of these excuses. If you were a principle on the license, President or Vice President, Secretary, Board of Directors, partner, individual owner, you will be barred from getting relicensed; in addition, all of the licenses that you may be on can be removed from you at that time. We will not recognize any of these excuses anymore.

I would next like to go into the financial report that I have here, that one page handout. This will give you a working idea of how the recovery fund worked financially. It's fairly current through September of this year. To date, with interest and fees, the size of the fund is almost a million and a half dollars. That's the income we've recognized to date from all sources. Expenses have come to $43,000. Of that, if you note, the biggest expense has been advertising. One of the programs that we've entered into in Arizona is to use the interest into the recovery fund for advertising. What we do is, really it's a public educational campaign to emphasize the importance of using a licensed contractor to the consumer. I feel that although we do have a very vigorous prosecution program, in fact we've initiated over 2,000 cases against unlicensed contractors in Arizona this past fiscal year, we also want to emphasize the positive which is to educate the consumer that there is a meaningful difference between using an unlicensed contractor and a licensed contractor. One of these differences being the recovery fund. I should point out that the recovery fund is administered by a five member board, appointed by the Governor, four public members and myself. This board is the one that made the decision on spending the money for advertising, how much do we spend, and things like that.

As far as payouts to claimants, we've had $44,000 paid so far. We have a current balance of $1,300,000. A total of 62 claims have been filed against the fund since July of 1981. We have 26 open at this time, 13 have been paid and we expect to pay about another $42,000 out of
this 26 that are still open based on our investigations, it shows about $42,000 more to be paid. The money of the recovery fund is held by the State Treasurer and invested by him. We presently receive an 11.5 percent rate of return. The highest we have received was a little over 14 percent. These are generally in, the instances I recall, of 60 days CD's. Very commonly we will invest in that type.

You all received a copy of this report, which is the Comprehensive Examination of the Arizona and Hawaii Contractors Recovery Fund. This was presented to NOPLA in May of this year and I think it's a pretty good document. It gives you the details, analysis of both systems and how they operate. We go very much into detail on the recovery procedures and processing of the paperwork and things like that. I'd say it's much more detailed than for me to read it, so I won't bother to cover that; perhaps I got to the highlights in the presentation this morning.

Also, Kathie has copies of the Arizona statutes and rules regulating contractors in that blue handout if you wish to pick up a copy of it.

Let me briefly summarize some of the advantages and disadvantages of the Arizona system. Disadvantages would be the recovery fund does not present any financial screening of the applicant which is one feature the surety bond does. Obviously certain companies want to protect their investment, they will tend to require a financial sheet prior to issuing a surety bond. The recovery fund does not have this feature. Some states such as Hawaii, also require this financial statement prior to issuing a license so they compensate in some regards for the lack of financial screening in the recovery fund system, by requiring a financial report prior to issuing a license. In Arizona, we cautiously decided not to. We've eliminated our financial report requirement prior to getting a license. The reason is we felt that, we did a study of which contractors went out of business in Arizona. We found that most of them are around for about three years before they actually went under just looking at the averages. By that time, the financial sheet given three year's prior to getting a license was not good anyway. So it's not required to be an audited financial statement. We felt that if it wasn't going to be meaningful, then you should eliminate it. To make it meaningful, would again, impose a tremendous financial burden on the contractor of a yearly audited financial statement, as well as the headache of hiring accountants on the staff to interpret those. This is a decision that we made in Arizona, probably a very unpopular one from whence other states issue licenses.
The next criticism of the recovery fund in Arizona is, and this comes from the contractor, there is basically the good contractor in exchange for the bad. Why should I go out and pay for the guy next to me, who is my competitor, who's going under. To meet this criticism in Arizona, we've given all contractors the option of not participating in the recovery fund. So that no one is forced to participate. Secondly, I feel that as long as the rate being charged by the recovery fund is competitive, with the cost of that $10,000 consumer bond, then it's basically an economic business decision for the contractors. He can go wherever the buck costs less. Another disadvantage of the recovery fund would be the complex legal procedures that must be followed to recover. Starting a lawsuit is, of course, a tremendous burden on anyone. Fortunately, I think in Arizona we do allow recovery of reasonable attorney fees so that at least there's some encouragement there to go through the trouble of completing these legal procedures. The biggest issue that we've had in Arizona is not so much whether the amount of damage claimed is reasonable but all in all whether the attorney fees are reasonable. In fact, that one case that we are disputing, that's the issue there. The reasonableness of the attorney fees. Although I must say, that by and large, the attorneys have been very good as far as working with us to get the documentation we require to make our evaluations of cases as well as negotiating the amount of damage that we feel is reasonable. We've had very good cooperation from the attorneys on this. The final disadvantage and I think in my mind, the biggest disadvantage, is the low amount of payouts that we give in Arizona. Five thousand per plaintiff, $10,000 per contractor is still insignificant. One of the things that's been hard for me personally to learn on the job is perhaps patience. I came in there 29 years old and I thought I was going to turn that office around in one year. Three years later, I've tried to learn that well, little by little, it will get there. I have to look back now and say "well, $10,000 is much better than $1,000." And, in January, we are going to propose to the legislature, that the payouts be raised to $10,000 per plaintiff and $50,000 per contractor's license. We're going to go for a significant increase there and I've already been doing some lobbying on it both with industry and the legislature and there seems to be pretty much a sentiment for raising it. We feel that the payout amount can be raised to $10,000 and $50,000 and still keep the annual at this point zero dollars. Our idea in building the fund to about a million and a half or a million and three hundred thousand at this point, was to make it self sustaining off of the interest income and payments by new contractors. When a new contractor comes in to Arizona today to get a
following year, it goes back to whatever the current assessment is. That process of interest and payment by new contractors will generate almost three hundred thousand dollars a year which can more than cover the annual payouts to consumers. We expect to run almost at a zero annual fee for the next few years even with higher payout amounts.

Some of the advantages of the recovery fund: greater financial protection to the public. It bothered me initially as Registrar, to pitch the use of licensed contractors when there were major and serious deficiencies in our licensing program. I had a hard time telling the consumers, use your licensed contractor to your advantage when it was hard for me to show what that advantage was. Now though, with this concept, we can say we have a meaningful financial protection program for you in Arizona if you use a licensed contractor but we won't if you use an unlicensed contractor. So there is greater financial protection today and I would hope that next year it would be even much greater.

There's the low cost to contractors. Generally in Arizona, surety bond premiums run in the neighborhood of $100 per thousand. We're offering the first year, $10,000 coverage for $75. So we're pretty good there as far as the low cost to contractors. Another advantage for our offices is the ease of administration. It's very simple to run the program; overhead has been minimal, as it has been in Hawaii. That document on the financial report breaks down the overhead in most areas. We don't have to worry about the exchange of bonding information with the surety companies and the cancellation of the suspension in all that stuff. We can cancel for payment much, much more easily than we can dealing with the surety companies with the licensed bond. There's much less paperwork involved there.

In conclusion, in Arizona we found the recovery fund to be a very good system for us. I'd like to point out though that because of the newness of our procedure, it's only been around two years, not quite two years, it's hard to draw some meaningful conclusions at this date. We recognize that being so new we can't predict the future entirely as where our fund will be in five years from now or ten years from now. We're still going to have to go by trial and error for several years but we're pleased with the initial performance to date, with some reservations such as the low amount of payouts including which was paid out more than $40,000 to date. But I think that's also a product of the economy in this present construction money. We may pick up commercial
contractors again and if we do, what we intend to do is broaden the coverage to include all property owners. In other words, the commercial property owners would also be allowed into this plan. But again, we will fight to exclude non-consumer groups from the fund because that is of course, the major financial draw.

Thank you.

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INTRODUCTION OF BOB WELCH

Mr. Welch is the Bond Underwriting Officer of the Kemper Group. He has 35 years experience in bonding and is a member of the Georgia Bar.

PRESENTATION OF MR. BOB WELCH (Verbatim from Tape) *
BOND UNDERWRITING OFFICER
KEMPER GROUP

Thank you Jim. First of all let me say I found the presentation from Mr. Kizer very interesting. Some of the points that he's covered in his presentation, I intended to touch part of it myself so I'm glad that he did because it adds credence to some of the remarks I think I have to make.

Some of this may be redundant to some members of the committee but to get to the issues that I want to talk about. But at the present time, there's an average of approximately 24 perspective licensees attempting to qualify to certified licenses among the various categories of contractors coming within the jurisdiction of the Construction Industry Licensing Board. For each of the written examinations given each year. Now there are three of these examinations given each year. Therefore, there is approximately 7,200 new applicants for consideration each year. The Construction Industry Licensing Board is charged with the responsibility of determining the eligibility of each perspective licensee from an age, experience, and knowledge standpoint. In addition to this, they also determine the moral character, the financial responsibility, and the credit reputation of each licensee. While the Board is staffed with people who have expertise in their field, they are totally and improperly staffed in the number of qualified people to investigate the financial responsibility and moral character and credit reputation of this number of new licensees each year. The Board is charged with the responsibility of protecting consumers and must investigate complaints of statutory violations against certified and registered licensees. And yet, has no authority to continue to investigate the financial responsibility and credit reputation of all existing licensees that renew their license every two years. Unless there is some material change of conditions, that has come to light, since the initial application was filed, each two years in the State of Florida, literally thousands of contract licenses, licensees both certified and registered are renewed with absolutely no precaution taken in investigation of continuing financial responsibility. And in that regard, I might just use some statistics given to us from the gentleman

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from Arizona and point out that the licenses in Florida run for two year periods and he found in his statistics that when they do have trouble, the average ones they have trouble with have been in business for three years or longer. So if we are only investigating the financial responsibility of the new applicants for licensure and doing nothing about the renewal license, then the greater majority of the exposure that comes based on the Arizona statistics, and I'm sure this would be true in the rest of the country, are for people after they have renewed their license their first time with no requirement being made in the State of Florida for continuing investigation of their financial responsibility.

Furthermore and interestingly enough, I think this touches also on the presentation we just had from Arizona. As a government unit, the licensing board or the administration of any fund that they might have, would be prohibited from refusing to renew or issue a license to someone who has gone bankrupt because under the US Bankruptcy Law, and under the requirement of a new fresh start, government bodies are prohibited from using that as a reason for issuing or renewing licenses. So the state, if it had its own staff making these investigations, and learned of the bankruptcy of an existing licensee, would not be in a position to take any action to prevent them from having a Florida license.

Now if the state as we see it has several options to consider at this time. One of which, of course would be to staff the Construction Licensing Board staff to conduct these investigations themselves. This would mean substantial increase in employees, a substantial expense in training, starting from a staff that does not have the background and experience. But should the state adopt a requirement that all licensees both new and renewal be bonded in order to qualify for the issuance of a license, they would have the benefit of the people who are employed in the surety industry, who are trained in the processing and assembling of underwriting papers, reviewing, verifying and analyzing applications and financial statements as well as credit reports, and they would perform these functions for the state at no cost to the state because it would be included within the licensing bond fee paid for by the contractor.

These people are trained on a daily basis to analyze particular contractors because the overwhelming majority of those employed in the surety industry are employed for the purpose of investigating, analyzing the on-going operations of contractors. Today there are more than 570 companies licensed to transact surety business in the State of Florida. Certainly not all of these are actively
engaged in the writing of surety bonds. But there are 57 of them that wrote more than a hundred thousand dollars in surety premium in the state last year. And there are 25 of them that have fully staffed branch offices within this state. These represent a cross section of the surety companies, a cross section of their underwriting philosophies, and their rating postures. And with such a market available, anyone desiring a license bond can persuade one of these companies to write those bonds and if they are unable to persuade one of those companies to write the bond, then it's seriously questionable as to whether or not they should have a license in the first place. And in addition to that, all of these surety companies transact their business through independent insurance agents. These independent insurance agencies receive their income through the commissions paid out of the bond premium. These independent insurance agents are the individuals who help and assist the contractor in preparing his application to the surety company to persuade them that they are qualified to get a bond. With the help of the insurance agents and the number of surety companies available, a contractor still cannot obtain a bond, then we say the surety industry will have done the screening process if the license bond requirement establishes to be conducted in this state.

In the Arizona presentation, he pointed out that one of the weaknesses of the fund is the fact that he doesn't have the screening ability available to them that the license bond does. However, I think they did make an excellent point in that if you're going to have a bond penalty adequate enough to protect all consumers from potential losses as a result of a bad apple contractor shows, then you're going to have to have substantial bond penalties and if you have substantial bond penalties, you may be getting into an area where the bond premium cost might be excessive. It certainly would not be unreasonable to consider a dual system where you had a qualifying bond for a contractor with an excess fund to cover the excess loss. I don't know, it presents a very interesting question and I don't think we've ever explored the specifics on it, but it certainly is something well worth pursuing.

The screening process is nothing new to this state or to any state because on the majority of public work done, be it federal, state, or political subdivision, contractors bidding on public projects are required to give bid bonds. The simple reason they are required to give bid bonds is that this creates the screening process by the surety industry to eliminate the unqualified bidders from bidding the job. They must come up with a performance of payment bond in order to get the work and of course, at the time the bid bond is underwritten, the performance of payment bond is underwritten, thereby the screening process is
accomplished. This also extends over into some of your larger private contracts of where they do require performance in payment bonds and bid bonds for the purpose of screening the qualifications of those bidding and obtaining the job. It is in the area of the smallest subcontractor and sometimes the specialty type contractors where bid and performance bonds are not feasible that the customer is in need of the screening process services so their protection can be granted through the requirement of a surety bond.

One other thing, let me say about the Arizona situation, don't get me wrong, I think they've done a great job in Arizona. In pointing out the type of claims that they had in Arizona, it's interesting to note that the most type of claims paid is payment bond. These are the losses that are paid to material suppliers, and subcontractors on the job. An owner or a consumer because of the Florida liens statutes, if you had an unpaid laborer or materials supplier on a job, and the suppliers had perfected their lien rights, they're going to be able to claim them against that property and that's going to be a consumer loss; so, I don't see really the significance in trying to break it down because they do all fall within the category of a consumer loss. The Arizona bond is probably the broadest license bond that exists in this country. It covers all code violations, it includes payment bond, it includes performance, it includes everything. The more you include under a license bond, the more cost you are going to have connected with it. There is a bond form that has been approved for the new licensees in the State of Florida now. This form includes the code violations which would cover -- sloppy work is the phrase I think was used here. It would also include illegal conversion of contract funds to other purposes. And it also includes abandonment of a project. The procedures followed in connection with this is that the contractor licensing board receives complaints, as they do now, they investigate it, and if it's a legitimate violation under those three violations and the code section, then there would be a legitimate claim against the bond. We believe that this is a logical and reasonable approach rather than try to put something out that includes everything and thereby makes the underwriting more restrictive and it makes it more difficult for the contractors to get bonded. That's the conclusion of my prepared remarks.

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INTRODUCTION OF NANCY GRADY AND JOHN WARREN

We are very fortunate this morning to have Ms. Nancy Grady who is the Vice President of Corporate Affairs of the Home Owners Warranty Corporation in Washington. We also have Mr. John Warren, Director of Underwriting for the Home Owners Warranty Corporation in Washington.

PRESENTATION BY NANCY GRADE AND JOHN WARREN (Verbatim from tape)*
HOME OWNERS WARRANTY CORPORATION
WASHINGTON

Thank you Mr. Chairman, members of the committee. We're delighted to be with you today. What I'd like to do is first go through some background about our corporation. We have some materials that are available which provides details on our coverage and basically our warranty insurance documents. And, then John Warren who's with me will cover our condominium program which probably is the one you're most interested in here in Florida.

Basically, the concept of insurance warranties is relatively new in the United States. We've been in business now for 8.5 years. Ours is a voluntary program covering virtually all types of residential structures. We've got a million homes covered throughout the United States and we have enrolled about 12,000 builders. Our coverage is divided into two parts, one of which is a builder warranty for two years. That covers workmanship and material defects in year one and systems defects for the first two years, and major structural defects for two years. In addition to that, the purchaser is given eight additional years of coverage against major structural defects. Our builders are screened prior to coming into the program for technical competence, their financial standing, how they've dealt with consumers in the past, that sort of thing. They agree to build according to recognized building codes, our standards, they agree to make repairs in accordance with our policy standards, which defines what in essence is the defect.

We have an excellent dispute settlement mechanism that keeps the purchaser from having to go to court. It's an informal system and we use neutral third parties to settle disputes which come to about 20,000 disputes through the system and it's worked extremely well. Basically it keeps everybody out of the courts, it's inexpensive, certainly to us. It's of no cost to the purchaser.

Our rate by the way, and this certainly differs from some of the rates we've heard today, our rate in the State of Florida, at least, is an average of $3.25 a thousand. It's
a varying rate depending on how long the builder has been in business, how long he's been in the HOW program. So that the good builder with no claims is not subsidizing the builder who has had previous claims. I think some of our statistics will be certainly of interest to you. As I say, we've got about a million homes in the program nationwide. We've got about 150,000 in the State of Florida.

Our claims to date on a national basis have been sixty million dollars. Now this is divided into two parts as our program is. Years one and two and then years three to ten. We've had about 50 percent of those claims in years one and two. The remainder in years three to ten. In the State of Florida we've paid our four and a half million dollars in claims. And for whatever reason, your claims run higher in years one and two than they do in years three to ten. We've paid out about three and a half million of that four and a half during years one and two of the program. With the remainder being a million in the years three to ten.

I thought some severity figures would help you so that you could know what size claims we are dealing with. On a national basis, the average one and two year claim is about $2,500. And conversely in the State of Florida it's $4,600. So you've got some more expensive claims in the early years of the new home than we do on a national basis. On the other hand, the average claim nationally in years three to ten is $4,500. The State of Florida's is about $2,500. Since that figure was sort of unusual, I asked them to break it out and they found that claims of over a $1,000 in years three to ten average about $7,500. Our coverage by the way is on the total sales price of the home. So that it certainly would cover those kind of claims that you have.

Now before I ask John to go over the details of our condominium program, I'd like to make a couple of comments about your condominium law here in Florida or at least one or two sections of that law. We have found that law extremely difficult to insure. Your coverage in many instances is of a longer term than ours which I assume there is some reason for that. Not being around during that period I'm not sure. But it is of a longer term so we have had to provide endorsement to extend our coverage at an additional cost to the builder. The real serious problems we have are the terms that you use. The purchaser basically is given an implied warranty of fitness and merchantibility. Those two terms are almost impossible to define in terms of defects. I mean what makes the condominium unmarketable. After the third year, when somebody's lived there, is it a broken window, is it the color of the bathroom, is it the color of the exterior,
who knows. Those terms are just impossible to define. We cannot insure undefinable currents. There is one other area that has caused us difficulty and that is you also refer to all other improvements it will cover. In some cases you are very specific about what type of coverage you want in the term and you seem to lump everything else into all other improvements. All other improvements many many times include items on which you are going to require maintenance. We can't cover maintenance, we can't cover a landscaping where it hasn't rained for three months in the State of Florida and the Condominium Association has decided not to water the lawn. That basically is an improvement to raw property. So that it seems to be an all encompassing law since it's an implied law, you've left it up to the courts to interpret. I don't think there's been much case law against that condominium law to my knowledge. We have not found any.

So we are unable to insure part of that law which of course, causes us problems, and causes the builder in the state problems.

So with that I'll turn it over to John. Thank you.

John Warren

Mr. Chairman, I don't think it's any point to reiterate coverage. What we've basically done with the multi-family program is extend coverage to the Condominium Associations around the country that has previously not been available except in some limited version of our single family program. The coverage now is available with some endorsements in the State of Florida.

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INTRODUCTION OF JOE MARTIN

Mr. Martin is the President of the Florida Building Trades Association and Secretary-Treasurer of the AFL-CIO in Tallahassee. His presentation will deal with construction safety.

PRESENTATION BY JOE MARTIN (Verbatim from tape)*

PRESIDENT OF THE FLORIDA BUILDING TRADES ASSOCIATION

Thank you Mr. Chairman and congratulations on your re-election. People that I represent are well satisfied with you as a Senator and we look forward to working with you the next four years. And quite some time longer than that if you personally so desire.

You know at the last meeting, I came before you and asked for some time on your agenda and since that point in time we have talked with your staff and we have been advised that we have a very limited time with your overall schedule so many of the things that we had hoped to do today, we had to condense down into a more concise package. We've eliminated a couple of the individuals that we consider experts in the construction industry and pared down our presentation to an individual that has a broader base of experience. They touch on many of the aspects of what we had hoped to make in the form of a presentation with four different individuals. And to accomplish that, we selected one individual that has walked that path from each of the four different aspects. The individual that is with us today is John Griffin. John, if you would, please come forward.

John has been an active participant in the construction industry for thirty years now. He has worked everywhere on the job site from starting helper to site inspector, superintendent, management representative, and municipal or government agency representative.

I'm not going to spend a lot of time in my opening comments. I would like to summarize a few of our feelings after John has talked to you about some of the problems that he as an individual very actively involved in the construction industry has experienced.

John Griffin

Thank you Jim. As Jim says, I am one who has come from being a truck driver to site engineering, field engineering, superintendent and inspector.
My most recent and most publicized experience has been as the Inspector for the Duval County School Board for this discussion. It is very hard to speak of this experience without emotion. I was employed by the school board to protect the school board from the public and of course this did not work out. When I would find errors, faults, in quality and safety, I would make my reports, my recommendations and these logs would be ignored. In fact, it got so bad at one time, my immediate superior told me if I did not ease up he would fire me. For a while I did do it; but I felt like that somewhere later down the road, errors and discrepancies that were allowed to continue would come back to haunt me and the public. So, I again reverted back to being very thorough about it and in fact, jeopardized my job.

Some of the things that I found I did not like and I don't think, if you people were having a home built, and these errors happened in your home, you would accept it. To begin with, this was a six story building, built within 50 feet of the St. Johns River, of what was a previous swampy area. The building was built without any pilings. They did not put in any pilings. Two hundred feet away, other shops built by a motel, perhaps 800 square feet, that's what you have piling under. The ground floor slab poured by the contractor had no reinforcing steel. Those fellows said, and I objected, that it wasn't necessary. However, the floor went on to crack in numerous places. Not only did it have large cracks in the floor but where the concrete was poured around the columns, there were no expansion joints. It had spider web crevices and cracks. In fact, before the area was designated to receive some new computer equipment, the computer company would not install it because they felt it was not sufficiently strong enough. The suggestion was made to place the equipment on the first floor; again, the computer equipment company rejected that idea. So the equipment to my knowledge, was not installed. At least had not been installed when I was on the project. We were supposed to have had quality workmen on the job. Very few verifications could I find about these men being of quality caliber. I have photographs of some of the welds and in my terminology, they look like bubble gum welds. The decking was not lapped according to the builders own requirements. Consistently, we did not have the proper strength of the concrete. And although, according to my objections, no efforts were made to correct it.

The columns had no supporting balancing nuts on it although it extended six stories into the air. However, once the concrete dried, I have photographs that it had shrunk. The supporting pre-fab concrete panels weighed in excess of 15 tons each. As I said previously, I don't know what
happens down the road or if at some point somewhere down the road this would have been a problem. I would not risk it. The question was raised then that perhaps some of you will raise the question now, what gives me the right to make these observations in that I am not professionally an architect or engineer. I also said previously, I have had in excess of 30 years experience from being a truck driver to inspector. I have visited and experienced many different construction sites. My project prior to the school board was in Chicago. We did some work for a pharmaceutical laboratory. Perhaps it was 20 times greater in scope than the school board project was. In fact, there were 17 of us inspectors on the project. The job was much smoother, much safer, and a much, much better project was delivered. Our workman were well trained. We had no pressure to do as a superior would want it. We were allowed to work the building according to their training, their experience. Of course naturally, I've heard all my life, in some return, that to pay people that kind of salary, you'd want to raise the cost of living. I personally have not experienced that. In fact, four weeks prior to leaving Chicago, I pulled way from my living expenses. I compared them to the first four weeks after return here. It cost me $2.00 a week more to live here and well paid for their work. And as I said, they feared no intimidation. They're not worried about that, if they refused to do something that was unsafe or unsound, that they would have a job tomorrow. That's in contrast to my school board and to the workmen here.

I received several pieces of communications as a result of the publication of this last job and the question came up, how could it be prevented. After all we had, there was an engineer design construction firm that built the project. When I started to complain, an outside firm was employed. There was an effort to prove that I was out in left field. The school board employed a professional engineer who was on no one's side. He was even more critical than I was. And, in turn, the professional people understand. However, the procedures that were handled, and this we issued a complaint, as always. We file our claims to the school board, they turned it over to a consultant firm, the consulting firm referred it back to the engineer of record and it's right back where we started from before.

I don't say that this is always going to happen but you don't know. Now, I got off my story there a little bit, but I started to say, we had conversations with several people on this wondering what could be done to prevent the reoccurrence. It is my belief that if the State of Florida will set up a licensing and bonding program for independent inspectors, where he too will have no fears or no qualms of delivering a quality product. I suppose we all have
dreamed about, thought about, some have even experienced. I know I have in my life. It's almost impossible to get a professional person to testify against a professional person. It's almost impossible to get one general contractor or subcontractor to testify against another general or subcontractor. Therefore, I feel that it's imperative that, and I mentioned earlier, an independent licensing and bonding inspector be appointed to work in conjunction with quality trades people, workmen in the field, and I feel that the Cocoa Project, the Kansas City Project, and the School Board Project could be prevented.

Thank you gentlemen.

Joe Martin

We'll ask Mr. Griffin to give us just a couple of examples of the type of work that he saw on this particular job site. It's so obviously less than minimum standards and yet was acceptable by many of the individuals involved in the private. John, if you would, please pass these around. Also, I'll start up here on my right with the Chairman, just a couple of newspaper articles that are part of a package and I might add that this one particular part, you've generated probably 15 pages of newsprint and I have in my office some 30 different projects that we have compiled. The same basic kind of information.

We selected John after talking to the contractors and employers and the other projects because of his longer range and broader based experience and the overall condition that exist at a work site having been a management representative, having been in charge of construction, having experienced all of the time delays, work stoppages, materials supplied, and all the other aspects. We felt that his unique perspective because of our condensed time here would better allow us to present the argument that regardless of how many engineers you have involved in the project, regardless of how many government officials that you have involved in a project, and regardless of how many punitive laws we have, in letting responsibility and penalties for discretions of honor, morality, or infractions of law, regardless of how much overall and overbearing legislation we have, in our opinion, unless you have individuals at the site, individuals that are competent, knowledgeable, skill crafts persons, that can make the installation of the many different components of construction, could actually the finished product, of which 99 percent of it is behind painted walls. All of the structural value is out of sight to the consuming public. And for this reason, we felt that with John's many problems in this specific project, and I'd like to point out to you. One, the government project, theoretically in the industry, government projects are more regulated, more time consuming,
more difficult to employer or contractors; however, it's not directly in my opinion, within the scope of what this council was originally charged to do. And we had to weigh that issue very closely when we were looking at your charge and how we wanted to present a case to you. But after talking with the many people that I spoke with in the last month and putting a presentation that doesn't try to overwhelm you with individuals, with facts and figures, just some very basic realities that exist within the construction industry to make our point as simplistic and yet, as clear as we can. We came to this government project that has tremendous regulation, safeguards, many of the things which you are talking about, theoretically are already compiled within this project.

And, I mentioned the last time I was here, that there are unsafe conditions that exist in our public educational system all over the state. In talking with these people for the last thirty days, I came to the conclusion and it was kind of a consensus of opinion on their part, that if government construction is diminishing in quality and in value, the taxpayers are paying in each community, then certainly, in the private sector industry, where the finished product is maintained and controlled by the individuals that one, conceives the idea, two, made it a reality, and three; painted it in the final stage, and four, markets it to the general public, and if in fact, in the free enterprise system, where much of the control is within the hands of the system, and the people in it, then conditions must be far worse there. If, some basic, very basic components exist.

One is, if you have an unscrupulous individual involved in the project, and I'm not saying that every project in Florida is hazardous to the safety to the residents in the State of Florida because we have very good reputable builders, developers, engineers and architects, and inspectors within our municipalities that are and architects, and inspectors within our municipalities that are fighting within the industry for their own interests, and the interests of the public. But since the very beginning of time, the construction industry has been one where individuals through acts of indiscretion either immoral or corrupt actions to run with the greatest profit without a lack of comprehensive knowledge of what their acts are doing, have been able to grab and run, if you will, and everyone in this room, I know if familiar with who I'm talking about. The unscrupulous developer that takes national profit and the public, the consumer be darn or beware. And, we're concerned about that. We're concerned to the point that we feel the construction industry in the State of Florida, like I said at the last meeting, is at a crisis point in time where we are experiencing diminishing quality of products on almost every project in the State of Florida.
Many of the people in this room are employers and they know the very real problems of trying to get a qualified competent mechanic to put together a project that they can feel proud to hang their name in shingles on and sell to the general public. And, there is a diminishing cycle that we feel and the people that I spoke with in putting together our comments today feel, are bringing about a less and lesser quality construction product. Very briefly, I have a few minutes left, I'd like to just present to you a couple of simple scenarios if I might.

If everyone would, please assume that you're a carpenter and a good one, if you may, that you've spent some four to five years of your early life acquiring the knowledge that allows you to market your skills in the construction industry. And you are unemployed. And the last four years, the economy on a national level and the construction industry has been healthy. And you've been able to start off as a war veteran if you will, returning from Viet Nam at the age of 24 in a trade or craft that you think offers you an opportunity for the future. And four or five years of prosperity within the industry have allowed you to work starting at, let's say $3.00 an hour and moving up to $8.00 or $9.00 an hour, and even $10.00 an hour over that five year period. And, now you're unemployed and the economy is bad. In the same time, you've acquired a wife, one child in diapers and possibly another on the way. It's not a phenomenal task for a five year period. A Viet Nam veteran 24 or 26 years old. But now you are a carpenter with five years of your life invested in an occupation and you are unemployed and you are back in the job market looking for employment. What can you anticipate as a future for your family. I'll tell you what the realities are ladies and gentlemen. As a carpenter, back on the street, and thousands of other people employed, your skills are no longer the most valuable asset you have, your energy becomes the most valuable. Your aggressive attitude could land a job when all construction sites have more carpenters than they need and many are experiencing layoffs on a daily basis. You don't go on the job and say well, on my last job I made $10.00 an hour and I'd like to go to work for you today Mr. Contractor for $10.00 an hour. No, you go on a project and you say, do you need any men? And, they say, no. And you go home and you tell your wife, day after day and week after week, there is no employment for $10.00 an hour carpenter. Now I kind of exaggerated the time frame. But, I want to tell you that's a very real event for many carpenters in the State of Florida, for many iron workers, and electricians. People that are not part of the system that works to stabilize the industry are on their own every time a job is completed. There is no longevity in the construction industry. It's very seldom for an employee to work more
than five years for a single employer. In the case where the exception individual exists, true. Every company has their key people. The ones they can rely on and know personally but they also have a flock of other people that work behind them that are not on the payroll continuously but are needed in order to produce a quality product. The construction industry, in our opinion, cannot survive in this country if you cannot offer opportunities to young people coming back from crisis, coming away from their homes with their wife and children. An opportunity to provide and expect some minimal standard of life. Unless there is some stabilizing effect, what we are going to continue to receive in this country is more people getting out of construction that are competent, qualified, and capable. More employers experiencing the difficulty of landing qualified employees; more money being spent in training on a daily continuing basis trying to offset the need for competent, skilled people. There has been a national cry for over twelve years that the building and construction trade industry is not generating enough competent people to perform within that industry. And we don't argue that one bit. But you cannot, you cannot recruit and keep competent young people who mature in an industry or occupation and work their way up in to it so that you have a continuity of quality unless they can have some kind of expectations.

Now most of your other meetings have talked about the need for additional inspectors on the job, better qualified inspectors, the need for engineering review, better qualified engineers, architectural review, legislation to tie the employer or corporation into the licensing agent and all of those things are good; but if the bottom line, allows the construction industry to diminish to such a point that you have a continuously changing work force that has absolutely no expectations of an annual income that they can receive with honor and provide for their family with honor, then the bottom line is that 200 or 300 employees on major projects will be different employees. And continue to be different employees and the industry and the final product, all of those components above the ceiling and beyond the wall that we can't see, that the consumers cannot see, will continue to diminish. A couple of very simples, and I know that most of you in the room are familiar with the example, the plumber. The very simple task of soldering two copper pipes together and then the carpenter or latter closing the wall up and encasing that plumbing for all time with no envision of the wall ever being torn out. There's no provision for escape hatches in many of these plumbing installations. No. The buildings are designed for the plumbing to be permanent. And yet, two and three years later, leaks are developing, walls are diminishing, the dry wall isn't opening out, and
after everyone that was originally involved with the project is gone, the owner, consumer, or the public in many cases, have to come in and rebuild the project. Long range maintenance is increasing in a phenomenal way in the State of Florida in government construction. And we submit to you, that good quality work force that can build products that they're proud of, not ashamed to attach their names to it, can come back in five years or ten years and say with pride to their family, your dad worked on that one and it was a good job. Well managed, well constructed and still standing. And when they make the last payment on the mortgage, whether it be a governmental agency, or whether it be an individual who's bought a home, they'll have a product there that was worth at least as much as what they paid for it and all things being considered, probably a lot more. It's the single largest investment an individual in this country on an overall average will make.

I say that in addition to all of it, the things that you considered, and I would not knock any of them, are questions or needs. I think there needs to be some stabilizing factor in the construction industry that will allow us to have government as employers, as an employee to have certain expectations, quality of products, security, anticipated annual income and safe above all, to the general public.

Now there are a couple of pictures that are being passed around that show you some welding points of construction that happened at just one job site this gentleman was involved in. I might add, he said it, and I'm going to say it again, that when a civil engineer was hired and brought in on the project to work with him, and that engineer verified almost, not quite, almost every complaint that this gentleman had made, and increased his concern about the structural quality of the building substantially. So there is a very real problem that exists in construction today. And, unless the welder that is supplying the metal understands the technology and it isn't a simple technology, there are welding schools in this near vicinity, at Vero Beach I think it is, welding company maintains a continuous welding program where they send individuals through continuous welding schools that qualify them as welders. And many people think of welding as something that is very minor activity on a construction site. And it may in fact, on most sites, be a very small man hour or activity on a project; but when they use welding, in most cases, it has a tremendous structural value. So even though it may be a small requirement, it still is a substantial concern that it be a maximum quality so that it's safe.

You have right here in Orlando and I know the Senator is familiar with it, the Civic Center, it had a lot of engineers involved in it or I don't know what the final analysis was on the project, but the structural steel beam
trusses that were installed in the Civic Center had some unauthorized welding on it. A lot of different stories were passed around. I read one newspaper article where a security guard at night heard popping in the building. Upon investigation, it seemed that the popping in the building was the roof truss system cracking where the welders welded at the wrong point, and he must not have been a certified welder, or he would have known that he was at the wrong point in a truss, right in the main span, one of the main stress points, had welded components to that steel. And the last time I checked on it, they were still passing the buck around of whether there had been job orders, exchange orders authorized by the engineer, who was responsible, etc. etc.

The bottom line being that had the welder been a knowledgeable welder, that understands the industry, understands his responsibility as a craft person, and had to hang his future employment and reputation on the result of that work, that individual would have made sure that the product that they were installing was right.

Now as an individual, and having worked in the construction industry, I have walked away from instructions from an employer to install components on a job that I knew was incorrect. It happens on almost every job in the State of Florida. You have superintendents that are not versed in all seventeen aspects of the trade; cannot be knowledgeable iron workers, carpenters, electricians, and plumbers all in one package, telling individual employees on the site, do it this way. And if that individual employee is not competently trained, does not understand the consequences of those instructions, and doesn't feel secure in the industry, so that they challenge the instructions, then you get a sub-standard product. To the point, the plumbing installation where those two copper fittings are installed and put together, every plumber knows and any non-plumber knows that the solder will follow the heat and in order to have a good joint, you have to have the joint heated completely around and when you apply the solder, the hottest point on the joint should be, the whole joint should be uniformly hot, but the hottest point to draw the solder should be the back end of the joint. The solder will go to the heat and bring it around. A lot of young people are taught in school that that's the way to solder. And without the competency, without the responsibility of their actions laying on them, you can put a half pound of solder on a half inch pipe. And yet a plumber knows that he is destroying everything that he built if he doesn't apply the right amount of solder, doesn't stop at the right time, and the finished product is a very simple function. Wipe the joint and it looks very good. A young person in vocational education can be taught to solder and wipe the joint. I've seen them.
I've taken the joint apart and the solder is around the lip, no penetration and a year later, two years later, expansion in cracks in the building, the joint cracks, and starts leaking. We have a school site here in this immediate vicinity that have copper tubing running through concrete and coming through the floor with no sleeves and no protectors on them. Now the individuals in the construction industry in this room know what that means. And yet those walls are being closed up, that copper will diminish, those pipes will rupture in a very short period of time and then government, our tax dollars which is a general school site will be used to correct that fault because the people originally involved in the project will have been gone long enough that their warranties or whatever, and warranties have been talked about here too, will have expired.

So, in summary, I say to you, John Griffin's idea that we should have competent, independent inspectors that are licensed by the state, regulated by the state, and required by law to be on certain types of construction facilities, is one that should be considered seriously. The qualifications of inspectors and I know from experience, many local municipal inspectors because of the lack of revenue in the building industry inspecting system, have carpenters inspecting electrical work and vice versa. Very seldom the vice versa. The carpenters inspecting electrical work and I submit to you that a carpenter, unless he has been through an electrical training program, is not qualified to inspect the work of a professional or competent electrician with four and five years of intense training. One system, a series of homes was built in Palm Beach County, brand new homes, in the $100,000 range, the air conditioning systems were turned on for the first time and they were in reverse cycle, for the first cold snap, 47 homes burnt the systems down. And they were all new, within a year. Because the individuals that installed the air conditioning systems were not competent trained electricians, and because that everyone in the system assumed that anyone could make that simple installation, because 90 percent of it comes in a package from the factory, it's a very simple wiring installation. It is a continuous problem in the state and one that this council I'm sure will not come up with absolute complete solutions. But again, if you have competent skilled individuals that are making those final connections or installations of the millions of components that go into construction, and there are just that. A typical high rise building, 15 floors, the structural steel will be in the hundreds of tons, 100 tons of steel, and if it's reinforced concrete, it will come out there in pieces that vary in lengths from 12 inches to 40 feet and all of those individual components of steel, many of them weighing less than a pound, and making up hundreds of tons of steel components, will have to be
individually placed, secured temporarily until the concrete is poured to surround it. And if that isn't done properly, the design so cleverly conceived by the engineer and the architect will not be secure.

I hope that we can work with you further. I know that your task is one of great magnitude. I think it's one of great urgency. And I offer the Florida Building Trades and the people I represent services to work with you any way that we can in helping you achieve what I conceive your assignment to be, and that some additional concerns in the construction industry that will produce a project and an industry that we can all be proud of and continue to work in for years to come.

* This presentation was taken from recording tapes. In some instances the tapes were not understandable. Therefore, an attempt has been made to provide the reader with our understanding of the substance of the speeches delivered by the individuals.
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