City Council Minutes

Workshop Meeting 12/03/86

City Council Chambers 735 Eighth Street South Naples, Florida 33940



PRESENTATION BY DR. HAROLD WANLESS OF THE UNIVERSITY OF MIAMI REGARDING THE RISING SEA AND IMPACT ON MANGROVE ECOLOGY.  DISCUSSION OF TROY PROPERTY.  DISCUSSION OF ORDINANCE AUTHORIZING THE CITY MANAGER TO DIRECT THE POSTING OF PARKING RESTRICTION SIGNS.		-SUBJE	ECT-				Page
SEA AND IMPACT ON MANGROVE ECOLOGY.  DISCUSSION OF TROY PROPERTY.  DISCUSSION OF ORDINANCE AUTHORIZING THE CITY MANAGER TO DIRECT THE POSTING OF PARKING RESTRICTION SIGNS.  FROGRAM BUDGETING - FIRE DEPARTMENT.  6	DISCUSSION CONCERNING	FIRE SPRINKLER ORDINA	INCE.		,		1-3
DISCUSSION OF ORDINANCE AUTHORIZING THE CITY MANAGER TO DIRECT THE POSTING OF PARKING RESTRICTION SIGNS.  PROGRAM BUDGETING - FIRE DEPARTMENT.			NIVERSITY OF	MIAMI REGAR	RDING THE F	RISING	3-5
RESTRICTION SIGNS.  PROGRAM BUDGETING - FIRE DEPARTMENT.  6	DISCUSSION OF TROY PRO	PERTY.				1	5-6
PROGRAM BUDGETING - FIRE DEPARTMENT.		E AUTHORIZING THE CIT	Y MANAGER TO	DIRECT THE	POSTING OF	PARKING	6
		RE DEPARTMENT.			: 1	, .	6
						. :	
						i	
		•				. !	
							1
						1	
							1
					1		
	4				. 1		
	•						
						* 95	
				,			
						. •	- Carlotte
•							
					!		1



Workshop Minutes

Time 10:30 a.m.

Date 12/03/86

Mayor Putzell called the meeting to order and presided as Chairman	1:					
				VC	TE	
ROLL CALL: Present: Edwin J. Putzell, Jr. Mayor	the control of the co	M O	E	ba ad		AB
Kim Anderson-McDonald William E. Barnett William F. Bledsoe Alden R. Crawford, Jr.	COUNCIL MEMBERS	T O N	OZOO	YES	N O	ENT
John T. Graver Lyle S. Richardson Councilmen	ons, wheres	35	i la	11		
Also Present: Franklin C. Jones, City Manager Community Services Dir. City Attorney Mark W. Wiltsie, Christopher L. Holley, Community Services Dir. Stewart K. Unangst, Purchasing Agent Gerald L. Gronvold,	mendine the sire andwer en reger may relop star		nit dejo didn bil bil	and and was		
Assistant City Manager Janet Cason, Steven C. Brown, City Clerk Personnel Director Roger J. Barry, Community Jon Staiger, Ph.D, Development Director Natural Resources Mgr.	bluov ne co yd doldw talameo en: plaa enaya	o To	tea tw	DO D		
James L. Chaffee, Utilities Director Frank W. Hanley, Finance Director Paul C. Reble, Police Chief  Norris C. Ijams, Fire Chief Wayne Martin, Fire Marshal Jodie M. O'Driscoll, Deputy Clerk	bulldings s are fire eith the Examero tection Ass		is:	S B S S S S S S S S S S S S S S S S S S		
See Supplemental Attendance List - Attachment #1.		bi	8	id		
***	feCult-mosas Miles yns s	d da	Lly	IN SE		
ITEM 1	d avail de	5.5	e i			
DISCUSSION CONCERNING FIRE SPRINKLER ORDINANCE.	milers. Cel buildi Seeyesyend	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9	100		
Mr. Robert Forsythe, Chairman of the Collier County Contractors Association Committee on Sprinklers, advised Council of the Committee's decision regarding fire sprinklers (Attachment #2).	Sing Wolld	855	9 b	lo lo		
Mr. Barnett asked if the insurance costs were accurate for sprinklered properties. Fire Marshal Martin quoted from a table prepared by Phillips and Company, Grinnell Fire Protection Systems Co., Inc. (Attachment #3).	Tavila a po a constitutoro a	List List List List List List List List	un o o o o o o o o			
Mr. Bledsoe asked how the proposed ordinance verbiage differed from the Southern Standard Building Code. Mr. Forsythe explained that the proposed ordinance requires that all new construction, other than single-family and certain small structures, be sprinklered regardless of the size. This is a more strict interpretation than the Southern Standard Building Code, he added.	yone explained was the control of th	2 to 0 2 f 1 5 f 1				
Mayor Putzell noted that records indicate sprinklers are 96.2% effective; this is a result of analyzing more than 58,000 fires over a 30 year period. "These statistics are very impressive," he said.	g sprinkie Committee ho com	a lb e it api e rc lsn	160		Wage transfer of the Parish State of the Sta	
-1-	de name I de		85			
	rdinesce V	l de	-			-
	ted for the	11 20	19	16	-	

the new ordinance with Council (Attachment #4). He advised Council that this proposed ordinance would be presented for their approval at the next Council meeting, December 17, 1986. Chief Ijams further advised that although he respected the Committee's

CITY OF NAPLES, FLORIDA				VO	TE	
City Council Minutes Date 12/03/86	COUNCIL	M O T I	HUO	Y	N	A B S E N
F   O   T	MEMBERS	N	D	S	0	T
opinions, he did not feel obligated to agree with them and that the proposed ordinance, in his opinion, would better serve the citizens of Naples. City Manager Jones added that staff wanted to quash the idea that the Committee and staff were in total agreement regarding this ordinance. "We still believe that the proposal we brought to you has merit," he said.  Chief Ijams and Fire Marshal Martin then showed Council two short films, Fire in America and	to for me can be	JOI CT. CT. CT. CT.	eration and the control of the contr			
Countdown to Disaster, and a video entitled Operation San Francisco.	eevotgasm 	195				
Fire Chief Ijams referred to a series of the most asked questions and answers regarding fire sprinklers (Attachment #5). He continued that if the Committee's opinions were taken, the new buildings being constructed today would need to be "retrofitted" two years from now and the cost of "retrofit" is 50-100% more than the initial installation of sprinklers.	Tree care the lee age to cot care the lee age the lee age the care	220 221 221 221 231 231	aris aris q aris aris vel 4.84			
Mr. Graver suggested that the members of the Committee be allowed to comment. Mayor Putzell suggested waiting until the ordinance actually came before Council.	l sas ent deminado di sas odi, s entro equ	18 319 5110 5110	001 001 011 011			
Mr. William Jones, member of the Committee, asked to be heard. He opined that the Southern Standard Building Code was sufficient and further that the Building Code Congress voted down a similar proposal as the one Council will be considering at their next meeting. The building code officials decided that there was just not enough death nor property damage to resort to such a strict measure.	enscori oni esect oni esect oni esect oni esect oni esect oni esect oni esect oni esect oni esect	00	eng neg n, a no o no o		en en fazoren fulkko austragaren en frafantiske primera konstanten en e	
Mayor Putzell commented that sprinklers were not required for single-family dwellings. Mayor Putzell then asked Mr. Jones if he was suggesting or stating that it was the view of four of the seven Committee members that there is no need for Council to consider sprinklers in residences other than single-family because the present code now in effect encompasses that. Mr. Jones said he was.	ele sealus a transcripte corrections corrections a transcripte a transcripte	Dil de i de de de de de i de i de de de de de de de de de de de de de			and the second s	
Mr. Mario Lamendola, member of the Committee, advised that not all multi-family dwellings had to be sprinklered, it depends on the size of the building and the construction. He further advised that he objected to the ordinance because it required all new construction to install sprinklers regardless of the construction material. Mr. Lamendola asked why the Fire Department was going to wait two years to require buildings to "retrofit" if they were that serious a hazard.	n see n location of location		12 dd 2 d	Control of the contro		americans presidente de la projection de suitant en transferit de santice des des des des des des des des des
Mayor Putzell invited the members of the Committee to come back to the next meeting, December 17, 1986, in order to discuss this issue further.	i, eds moul said big inummo ove lavel s					
***	voil the bay			-	CANADA MARIAGANA	on distribution for parties
ITEM 2	. Wols bay	-				Magasura and Magasura
PRESENTATION BY DR. HAROLD WANLESS OF THE UNIVERSITY OF MIAMI REGARDING THE RISING SEA AND IMPACT ON MANGROVE ECOLOGY.	deno cro a eve pasa <b>s</b> gesi secos	-	000			AND THE RESIDENCE AND THE PROPERTY.
Mayor Putzell introduced Dr. Harold Wanless, Professor of Marine Geology and Geophysics, from the University of Miami, who is also on the Board of	DE SASIRA					WORKSON THE PROPERTY OF THE PR

CITY OF NAPLES, FLORIDA		1.1		-	12	1
City Council Minutes Date 12/03/86	COUNCIL MEMBERS	TIO	SECOND	YES	N	1
e proposed ordinance, in his	d stags be		me.			F
Directors for The Conservancy. Dr. Wanless, he continued, will discuss the study of the rising sea and impact on mangrove ecology. This is also relevant to the City's consideration regarding the Collier Development Company's Development of Regional Impact (DRI), Mayor Putzell said.  Dr. Wanless showed Council a slide presentation. He explained that his presentation would tie in three things: mangroves as a community, hurricanes, and seaoats.	would be a separate the constant the constan	700 600 900 100 100 100 100 100 100 100 100 1		1000 B 0000		And the second s
Or. Wanless gave Council a brief history of the changes that have evolved regarding sea level. Ouring the ice age, approximately 15,000 years ago, a person could have either driven 150 miles to Miami or 120 miles from what is now Naples to "Naples west"; sea level was down 300-400 feet. After Florida started coming out of the ice age, the sea level increased approximately 1 meter every 100 years which began to flood the continental shelves. About 7,-8,000 years ago, sea level started to slow down. The sea level 5,000 years ago was rising about 25 centimeters, 1 foot every 100 years; then around 3,200 years ago, the sea level rose much slowly, approximately 4 centimeters every 100 years. Or. Wanless explained that in the past 50-60 years, the tidal gauge records show that sea level has already increased during this period 2.5 centimeters. This is following the same pattern as 5,000 years ago with sea level rising 1 foot every 100 years. "This could be the beginning of the "Greenhouse Effect'", Dr. Wanless said.	one so ital  questions  questions  que (Attach  pre (Attach  miltise's  itied" two  itied two  ation of ent  ent be said  council,  pd waiting  than Jones  the Council  groe Council			од вавийн из мови мави		
The "Greenhouse Effect", Dr. Wanless continued, suggests that the earth is going to warm from the build-up of carbon dioxide. Dr. Wanless further advised that the increase in sea level could have been observed in the intercoastal zone by the height of the barnacles and oysters on various pilings in this region.	res just no tre to such enter sing the for sing the Mr. Jos chas the V	30 31 31 31	S P P P P P P P P P P P P P P P P P P P	# # # # # # # # # # # # # # # # # # #		
Dr. Wanless also explained that the mangrove community is encroaching into what was once fresh water environments. This is due partly to the rise in sea level and the various cities lowering the fresh water level. "If you look at the seaward end of these coasts, they are subjected to much accentuated erosion", he said.	rang consists of the consists					
Dr. Wanless referred to Randall Parkinson, a graduate student, who has been studying the 10,000 Island area. His studies have shown that there are several zones in this maze of islands: inland (which is limestone) and a coastal complex area (which is made up of mangroves and oyster bars). Dr. Wanless referred to a cross-section of core taken from the 10,000 Islands and showed how during the rapid rise of sea level 5,000 years ago, the mangrove community could not maintain itself. After the sea level slowed, the oysters started to take hold and the bays started to fill in until it was finally shallow enough for the mangroves to colonize. Dr. Wanless said if the sea level had remained slow, the 10,000 Island area would probably be filling in. This would have been a time when beaches are stable and when seagrass and mud fill in so that mangroves can move across; however, this is not what is happening now.	no snd the no objecte to objecte to all new less of to describe to objecte to describe to	5 10 10 10 10 10 10 10			на на принада на прина	
Dr. Wanless again referred to the "Greenhouse Effect" which could ultimately reduce the many mangrove communities. During the 3,000 years of -4-	Pursell aor of Mark with of Mia		(8)	The state of the s		

William.

CITY OF NAPLES, FLORIDA		М	S	VO		A
City Council Minutes Date 12/03/86	COUNCIL MEMBERS		ECOND	Y E S	N O	ESEN
slow sea level rise, there has been a stockpiling of sediment which encouraged mangrove growth seaward; nowever, the mangroves will start migrating toward the mainland again during the rapid sea level rise, or. Wanless said. On the conservative side, he continued, the mangrove communities are stressed and are going to be eroding.	ed oing eus m eds acw was dis ac con stav do farry ac			Mr We to		
Sea level is not the only threat to the mangrove communities, hurricanes and catastrophic events also threaten them. During a hurricane, huge mangrove complexes can be destroyed or thinned by 20-30 meters. These mangrove communities help serve as a dam between the sea water and the fresh water channels. Dr. Wanless showed a picture of an area where mangroves were trying to recover from an absolute period of desolation.	paxas ri bes Cliny A Mall, cho commercial rv notel 1010 cho site a site	787 18 221 226 266 266	o ebe jas os tan			
Or. Wanless asked Council to take into consideration the mangrove communities when they approve dredging permits, etc. Mangroves do not build land, he continued, but they have a cigar-like root that if it cannot find bottom at low tide to get started, it will not grow. It is not known how the mangrove communities will respond to the rising sea level, nowever, Dr. Wanless said.	ed brea ede Nous sets Nous sets Penol ters Infray y Lei To est		EDS Eds Eds Vilo			
Mr. Graver asked what would happen should the City need to channel through a mangrove community. Dr. Wanless advised that every time you cut through, this allows the sea water, which is heavier than fresh water, to move into areas where the fresh water resources are stored.	es Mes estapes es cher that thiose of t	10	es fu tm tm			
Mayor Putzell asked about the consequences of man adjusting nature. Dr. Wanless explained that man has made an amazing amount of changes in South Florida, some good and others bad. For example, he said, in Biscayne Bay they are trying to plant seagrass in an area that will be destroyed by the next major storm. He advised that the City carefully evaluate what has grown in an area before trying to plant something that doesn't belong.	TO MODERNOS STREET STRE	100	in in its control in the control in			
***						-
City Attorney Rynders advised Council that the representatives for the Troy Property were in attendance. He further advised that he was seeking guidance from the members of Council as to whether they wanted to seek acquisition of the property or negotiate a settlement with the Troys. In order to pursue litigation, he continued, it would cost between \$40-60,000 in defending this lawsuit.	d 50:51					
Mayor Putzell left the meeting at 11:55 a.m.						-
Mr. Barnett expressed concern that Council was not notified of this issue prior to the meeting. City Attorney Rynders apologized for the inconvenience.		Brech Rethandspiegothydawyniad dillyd	Enforcemental designation of the control of the con	A COUNTY OF THE PROPERTY OF TH		Constitution designation of the Constitution o
Community Development Director Barry advised that the Troys had submitted another set of petitions to the City similar to the original Planned Development (PD) request made in 1984, which was denied. The developer is asking for the property to be zoned commercial; however, the current zoned use is multi-family, Mr. Barry said. The Planning Advisory Board still recommends denial.	# 25 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
-5-					-	
				-	-	1

COUNCED O N E NYABERE EN D S	tes Date 12	/03/86	COUNCIL MEMBERS	0 T 1	SECOND	YES	N O	ESENT
Mr. Bledsoe said he fedecision was the most were able to acquire to do so. Mr. Blatigation were needed to protect a vital par	desireable, but the property, he edsoe also state , that the City si	if the City would agree d that if	which enco	IS LE UM UM	nif Vet V 1			
Mr. Graver asked why against the City was Rynders advised that Coastland Mall, they f be zoned commercial.	so strong. Cit	ty Attorney oximity of	is not i tes, hurri tem, Di s can be These mans	ve iin teii xo	i e den Lon	00 00 00		
Mr. Barry noted that consideration that the visible site in the C should be constructed	is is the last latity and something	arge vacant	een the s Dr. Wanl ngroves we period of	Te m USD		DD DD DX DA		
Mr. Bledsoe said he be in that area should a matter.			ess asked rove commun etc. Ma d. but the	08 08 07		10 11 10 10		
City Manager Jones suindividually with member up to date on the sequestions. Mrs. Andewould be an appropriate and further that Courramifications of this	ers of Council to situation and to erson-McDonald saide way to handle the cil needs to be a	bring them answer any d that this e situation	prov. Illiam series will re wante or wante will re wante or comment the actions of the comment o	00 14.0 18 18 01 03 88	in in its contract of the cont	Will Man		
***	***	***		1,5	25			
		ITEM 3			93	N/		
	RDINANCE AUTHORIZI DIRECT THE POST ON SIGNS.		ictel aske ig natute. : an amak eome good	land ban bah	10	M 5 7 8 1		
Postponed until th Wednesday, December 10		p Meeting,			0.84			
***	*** goled a nee				P.	3		
*		ITEM 4						
PROGRAM BUDGETING	- FIRE DEPARTMENT	.beslybs stebs			7.5			
Postponed until th Wednesday, December 10	), 1986.	p Meeting,						
***	*** O BT Layor	***					1	
ADJOURN: 12:05 p.m.		tn defending t			-			
EDI	VIN J. PUTZELL, JR.	, Mayor	utzell left nett exerci					
		saue prior to						
JANET CASON CITY CLERK		ent Director i	ty Develop	nu				
JODIE M. O'DRISCOLL		request made		01	or Ve			
These minutes were app	provedDEC' 1	7 1986						

#### SUPPLEMENTAL ATTENDANCE LIST

Charles Andrews Herb Anderson

Wayne Lecureux Bob Galloway

Robert Forsyther Contractors Gary Carlson, Bill Jones and Phil Pugh:

Reverend Walter Lauster Tish Gray

# NEWS MEDIA posensil of and revenues of another a la beaugnes as a sellininos eff

Kevin Parks, News Press
Donna Winn, TV-9
Tom McCutcheon, TV-9
Chuck Curry, Naples Daily News
Hilary Hutchison, TV-9
William Upham, Naples Star

Other interested citizens and visitors.

ordinance for all new construction be removed and let the Southern Standard

December 2, 1986

Naples City Council City Hall Naples, Florida

Honorable Body,

The following is the report of the special committee established by Mayor Putzell to study further the proposed additions to the 1985 Southern Standard Building Code regarding fire sprinklers.

The committee was composed of Architects Dave Moyer, Mario Lamadola and Robert Forsythe; Contractors Gary Carlson, Bill Jones and Phil Pugh; Fire Chief Norris Ijams; Fire Marshal Wayne Martin; City Building Official Cliff Gordon; Director of Community Planning Roger Berry and Councilman John Graver.

Three general meetings were held and numerous subcommittee meetings to attempt to secure answers regarding many questions that were asked.

Some of these related to costs of installation, savings on insurance, licenses required for the installation of sprinklers, the types of buildings that should be covered, and retrofit. The minutes of the meetings attached spell out more in detail the reports given and the discussions that were held.

It was agreed that the first consideration was life safety, the second was protection of structures and the third was cost of installation.

Facts were presented to the committee showing that there would be a savings on insurance where sprinklers are installed.

Representatives of the construction industry were of the opinion that the requirements of The Southern Standard Building Code and NFPA is quite adequate to protect the citizens of Naples.

It was felt by certain members of the committee that additional requirements for new construction was not valid unless the retrofit of existing buildings would also be included in as much as many of the older buildings in town are not built to the standards that are now required for new buildings.

The committee worked well together; however, unanimous concluions were not reached but the following two motions were passed as recommendations to City Council by a majority attending the last meeting of the committee:

- 1. The City of Naples Fire Department shall conduct an inspection to determine what existing structures, except single family in the city, may require a retrofit for a fire sprinkler system and will develop standards to implement such a program within 24 months. Such a program will set the standard for an ordinance to be proposed for adoption by City Council. Passed unanimously.
- 2. It was moved that the original wording regarding the proposed sprinkling ordinance for all new construction be removed and let the Southern Standard

ATTACHMENT #2 - Page 2

Building Code along with the NFPA stand as the requirements for sprinklers. This motion passed four for and three against.

The committee stands by to answer any question that you may have and we thank you for giving us the opportunity to serve on this study.

Respectfully submitted,

Robert E. Forsy Chairman

# ARE SAVINGS POSSIBLE FROM INSTALLATION OF SPRINKLER SYSTEMS?

Case Studies of Insurance Savings on Sprinklered Properties

Property	Insurance Before Sprinklers	Insurance After Sprinklers	Sprinkler System Cost	Annual Savings	Sprinkler System Amortization
Food Processing Plant	\$308,377	S 7,709	\$177,100	\$300,668	7 months
Wood Products Plant	\$ 9,253	S 1,556	\$ 17,187	\$ 7,697	27 months
Metal Stamping Plant	S 74,000	\$11,843	\$ 69,753	\$ 62,157	13 months
Supermarket	\$ 3,350	\$ 1,173	\$ 7,611	S 2,227	3-¼ years
Bowling Lanes	S 4,069	\$ 2,116	\$ 15,000	\$ 1,953	7-1/2 years
Church	S 3,186	\$ 1,134	\$ 18,040	\$ 2,052	8-1/2 years
Country Club	\$ 52,500	\$11,100	\$ 21,250	\$ 41,400	6 months
Restaurant	\$ 5,820	\$ 786	\$ 15,815	\$ 5,034	3 years
Warehouse	\$ 7,000	\$ 1,680	\$ 22,286	\$ - 5,320	4 years
Carpet Manu- facturing Plant	\$ 30,780	\$ 6,156	\$ 64,790	\$ 24,624	2-1/2 years
Paint Ware- house	\$ 26,300	\$ 6,575	\$ 52,300	\$ 19,725	2.1/2 years
Shopping Center	\$ 19,850	\$ 5,955	\$ 62,196	\$ 13,895	4-1/2 years
Nursing .	\$ 10,200	\$ 5,610	\$ 24,200	\$ 4,590	5 years

Sources: Phillips and Company, Grinnell Fire Protection Systems Co., Inc.

#### FIRE SPRINKLERS REQUIRED.

- A. New construction shall be equipped
  with automatic fire sprinkler systems
  installed according to the N.F.P.A.
  13 or 13D in the following classifications
  of occupied structures: Assembly,
  Educational, Health Care, Detention and
  Correctional, Mercantile, Residential,
  Business, Industrial and storage with
  the exception of the following:
- a) Those detached structures
  less than two hundred and
  ten (210) square feet.
  - b) Structures built on single family residential lots. (ie: single family house, garage, shed)
  - c) Detached one story unenclosed covered vehicle storage areas.
  - B. The City of Naples Fire Department will conduct an inspection of all properties to determine that existing structures in the City may require retrofitting for a fire sprinkler system and will develop standards to implement such a program within twenty-four (24) months. Such a program will set the standards for an ordinance to be proposed for adoption by City Council.

#### A LOOK AT THE PERFORMANCE OF AUTOMATIC SPRINKLER

Detailed records kept by manufacturers, insurers, public authorities, fire prevention societies, and because these are the records that are used for further development of sprinkler installation and to justify sprinklers in our buildings and fire codes it is vital to understand they have been objectively gathered and held up to public scrutiny for about 100 years.

Records indicate that sprinkler are 96.2% effective. This is not a guess. It is the result of analyzing more than 58,000 fires over a 30 year period. In addition, records also show that 6 out of 10 cases sprinklers extinguished fires without any human assistance. In other instances, they held the fire in check until fire crews arrived. Added up, we will have almost 100% efficiency on extinguishment of fires in their incipiency.

#### WHAT ARE THE FUNCTIONS OF SPRINKLER SYSTEMS?

Sprinkler systems automatically detect fire, immediately sound an alarm, go into firefighting operations and remain in operation as long as the fire constitutes a danger.

Only automatic sprinkler systems do all four. This is why they are the best single source of fire protection.

#### AT WHAT TEMPERATURE DO SPRINKLERS OPERATE?

Temperature Ratings Classifications

Maximum Ceiling <u>Temperature (F</u> )	Temperature Rating of Sprinkler Head (F)
100	135 - 170
150	175 - 225
225	250 - 300
300	325 - 375
375	400 - 475
475	500 - 575

### WHAT ARE THE COSTS OF SPRINKLER INSTALLATIONS?

Cost of complete sprinkler system depends on many factors, such as; building type and construction, availability of water supply and degree of hazard of the occupancy.

The major code organization have released average costs of sprinkler systems installations.

Building officials and code administrators
.67 to \$1.35 square foot

International Conference of Building Officials \$1.35 square foot

Southern Building Code Congress \$1.25 square foot

Retrofit installations in existing building can be expected to cost some what more depending on difficulty of installation. This cost may be as much as 50% more than new installation costs.

#### DO ALL SPRINKLERS OPERATE WHEN FIRE OCCURS?

No. Only those sprinklers directly over the fire operate and discharge water. All others simply remain ready to operate in the event the fire spreads or another fire breaks out.

# IS NAPLES WATER SYSTEM ADEQUATE AND RELIABLE TO SUPPORT THE DEMAND OF MANDATORY SPRINKLER INSTALLATIONS?

Facts developed from Water Distribution Department and fire flow tests conducted from selected areas and reviewed and studied by a fire protection engineer documented both volume and pressure to be more than adequate for any fire sprinkler system demand.

The analysis was based on peak demand and worst case scenarios.

#### WHAT ABOUT WATER DAMAGE?

Reports and comments of water damage due to fires in sprinkled buildings are often exaggerated, due to comparisons with the small fire loss which occurs thanks to the sprinkler.

The amount of water which is put on a fire by fire department hoses in an unsprinkled building is nearly always tens and hundreds of times more than that which sprinklers would have discharged. The fire damage as reflected by insurance claims is also many times greater.

Loss records of Factory Mutual Research indicate that the probability of a sprinkler discharging accidentally due to a defect is 1 in 16,000,000 per year.

1/2" orifice standard size opening

10 lb pressure = 18 G.P.M. 15 lb pressure = 22 G.P.M. 20 lb pressure = 25 G.P.M.

For comparison sake our smallest nozzle on a booster line - 60 G.P.M.

1 3/4" line normally used - 200 G.P.M.

## WHO WILL TEST AND INSPECT SPRINKLER SYSTEMS?

Testing procedure for sprinkler ordinance.

All fire protection equipment systems shall be tested annually. This testing is to be done by qualified personnel and documentation of all testing is to be submitted to the Bureau of Fire Prevention upon completion.

Qualified person

Certified contractor of fire protection systems.