BROWARD COUNTY
BOARD OF RULES AND APPEALS

ONE NORTH UNIVERSITY DRIVE
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www.broward.org/codeappeals

Date: January 19, 2023

To: Broward County Building Safety Inspection Ad Hoc Committee.

From: Kenneth Castronovo, Chief Electrical Code Compliance Officer.
John Morell, Chief Structural Code Compliance Officer.

Subject: To review the Broward County Building Safety Inspection Program Policy 05-05.

Location: City of Fort Lauderdale, Building Department -Conference Room 4,5 & 6
700 NW 19 Ave., Fort Lauderdale, FL 33301

Agenda:

1. Introductions
2. Florida Fire Statistics, Exhibit #1
3. Home Fires Causes Report: Exhibit #2
4. Building Safety Inspection Program, Exhibit #3
5. Definitions, A and B, page 5.83, Exhibit #3
6. Qualifications of Inspectors, Page 5.85, Exhibit #3
7. Structural Safety Report Form, page 5.89, Exhibit #3
8. Electrical Safety Report Form, page 5.90, Exhibit #3
9. Infrared Thermography, Dade County, Exhibit #4
10. Thermography Inspection, item 16, page 90e, Exhibit #3
11. General Conduits/Raceways, item 13, page 5.90d, Exhibit # 3
12. All Parking Lot and Garage Lighting, item 25, page 5.90g, Exhibit #3
13. Infrared Training PowerPoint, Hand out
14. NFPA 70E Safety Concerns, Hand out
15. Questions?
16. Schedule next meeting.

EXHIBIT #1

FLORIDA REGIONAL FIRE AND NON-FIRE TOTALS

TYPE OF FIRE

	Region	Incidents	Mutual Aid	Total Responses
STRUCTURE FIRES	Central	3,220	542	30,481
	North	666	143	7,337
	Northeast	1,829	303	15,764
	Northwest	1,715	601	20,662
	South	1,531	386	16,127
	Southeast	2,390	106	23,940
	Southwest	2,901	631	30,972
	TOTAL	14,252	2,712	145,283
VEHICLE FIRES	Central	1,838	126	14,554
	North	533	98	4,777
	Northeast	1,389	85	9,146
	Northwest	722	105	5,949
	South	1,032	149	8,762
	Southeast	1,993	34	15,889
	Southwest	1,704	83	12,271
	TOTAL	9,211	680	71,348
OTHER FIRES	Central	5,207	400	42,411
	North	1,285	147	13,205
	Northeast	3,973	225	27,976
	Northwest	2,076	326	19,648
	South	3,644	553	33,858
	Southeast	4,672	55	29,661
	Southwest	5,264	224	36,097
	TOTAL	26,121	1,930	202,856
EXPOSURE FIRES	Central	75	0	514
	North	40	0	304
	Northeast	20	0	177
	Northwest	45	0	300
	South	61	0	436
	Southeast	111	0	901
	Southwest	209	0	1,056
	TOTAL	561	0	3,688
GRAND TOTAL		50,145	5,322	423,175

NIFRS is the source of this data which was provided by the reporting fire departments.

ALL OTHER CALLS

	Region	Incidents	Mutual Aid	Total Responses
FALSE ALARMS	Central	35,438	880	230,967
	North	3,099	106	20,417
	Northeast	18,473	508	112,079
	Northwest	8,836	254	52,082
	South	17,527	1,728	131,333
	Southeast	45,828	101	324,335
	Southwest	27,703	635	163,600
	TOTAL	156,904	4,212	1,034,813
OTHER CALLS	Central	123,885	9,328	865,843
	North	17,886	491	101,526
	Northeast	75,905	3,122	471,327
	Northwest	29,643	1,585	187,291
	South	77,524	11,628	595,376
	Southeast	114,395	1,312	847,714
	Southwest	102,143	5,706	734,063
	TOTAL	541,381	33,172	3,803,140
RESCUE EMS	Central	432,178	14,570	3,005,280
	North	39,077	1,032	223,761
	Northeast	222,362	9,035	1,541,159
	Northwest	66,995	1,926	440,301
	South	225,064	21,792	1,616,111
	Southeast	447,390	2,166	3,375,850
	Southwest	514,196	7,483	13,171,813
	TOTAL	1,947,262	58,004	23,374,275
GRAND TOTAL		2,645,547	95,388	28,212,228

NIFRS is the source of this data which was provided by the reporting fire departments.

The Villages

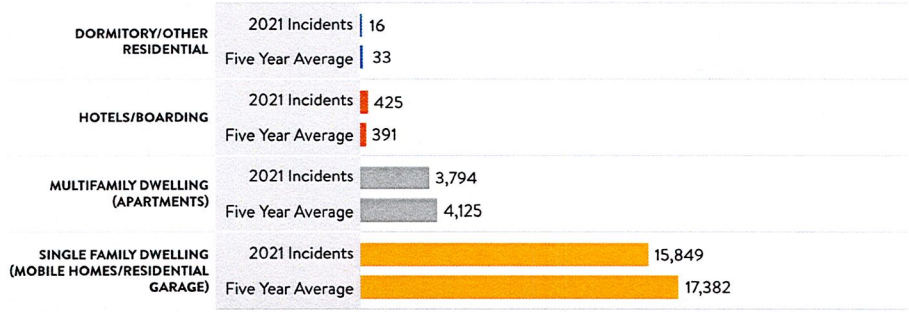
Tampa Fire Department

TOTAL FIRES COMPARED TO FIVE YEAR AVERAGE BY PROPERTY USE

NIFRS is the source of this data which was provided by the reporting fire departments.

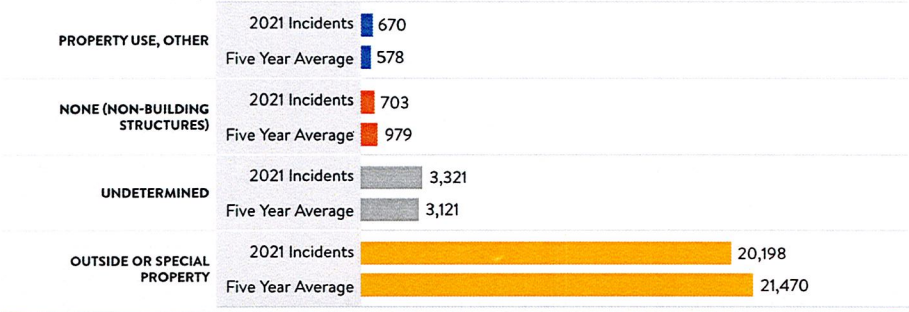
The Villages

RESIDENTIAL



	2021 Incident	Five Year Average	Difference	2021 Dollar Loss	Five Year Average	Difference
Dormitory/Other Residential	16	33	-106.3%	$193,500	$254,886	-31.7%
Hotels/Boarding	425	391	8.0%	$6,677,972	$4,178,882	37.4%
Multifamily Dwelling	3,794	4,125	-8.7%	$41,474,112	$43,576,741	-5.1%
Single Family Dwelling	15,849	17,382	-9.7%	$223,767,256	$208,388,464	6.9%

OUTSIDE, SPECIAL USE, OTHER, NONE, AND UNDETERMINED



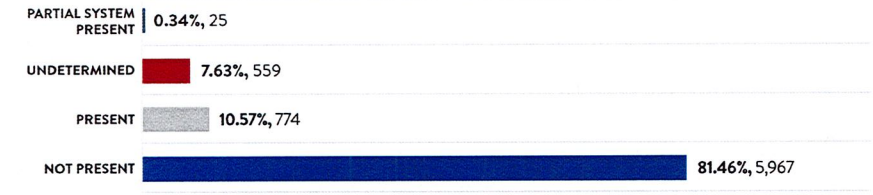
	2021 Incident	Five Year Average	Difference	2021 Dollar Loss	Five Year Average	Difference
Property Use, Other	670	578	13.7%	$1,912,294	$4,831,004	-152.6%
None	703	979	-39.3%	$1,584,733	$4,618,595	-191.4%
Undetermined	3,321	3,121	6.0%	$1,379,974	$3,124,533	-126.4%
Outside or Special Property	20,198	21,470	-6.3%	$91,489,783	$111,378,891	-21.7%

NIFRS is the source of this data which was provided by the reporting fire departments.

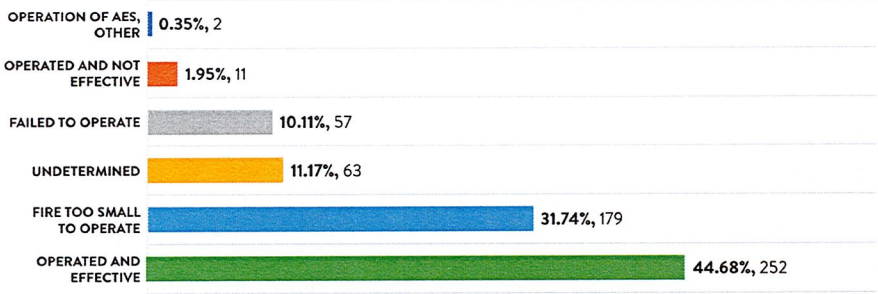
FIRE SPRINKLER USE DATA

Automatic Extinguishing System (AES) were present in **11** percent of reported structure fires with **45** percent of those operational. **8** percent were reported as undetermined and **7** percent did not operate due to a variety of reasons, such as manual intervention, agent discharge but did not reach the fire, ect. In **32** percent of structure fires, the fire was too small to activate the fire sprinkler. Unfortunately, in **81** percent of the structure fires there was not an AES present and **8** percent were reported as undetermined.

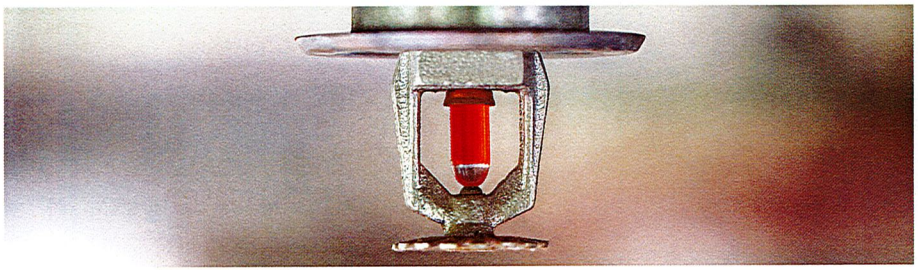
AES PRESENCE



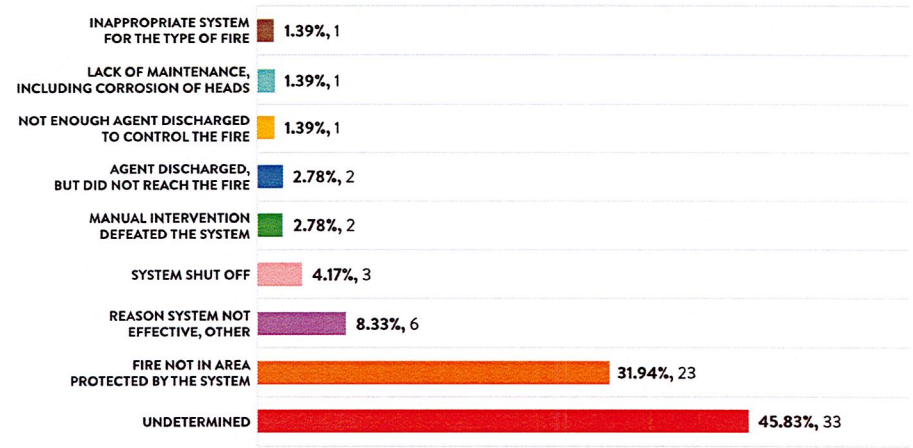
AES OPERATION



NIFRS is the source of this data which was provided by the reporting fire departments.



AES FAILURE



NIFRS is the source of this data which was provided by the reporting fire departments.

St. Petersburg

AVERAGE RESPONSE FREQUENCIES REPORTED BY FLORIDA FIRE DEPARTMENTS

A FLORIDA FIRE DEPARTMENT RESPONDS EVERY 11 SECONDS

A FALSE ALARM OCCURS EVERY 3 MINUTES IN FLORIDA

A STRUCTURE FIRE OCCURS EVERY 35 MINUTES IN FLORIDA

AN EMS/RESCUE CALL OCCURS EVERY 16 SECONDS IN FLORIDA

AN OUTSIDE/ OTHER FIRE OCCURS EVERY 19 MINUTES IN FLORIDA

A FIRE OCCURS EVERY 10 MINUTES IN FLORIDA

AN OTHER EMERGENCY CALL OCCURS EVERY 11 SECONDS IN FLORIDA

A VEHICLE FIRE OCCURS EVERY 54 MINUTES AND 6 SECONDS IN FLORIDA

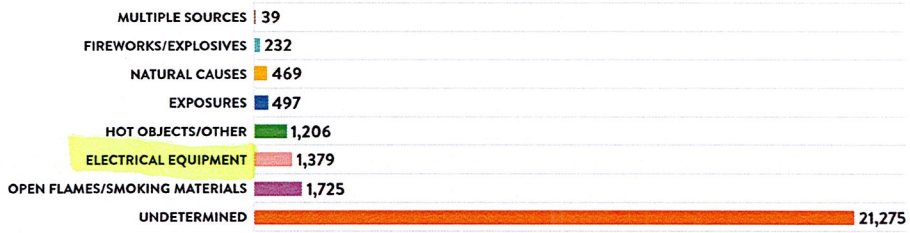
Hillborough County Fire Rescue

These Statistics do not include exposure or automatic/mutual aid given responses.

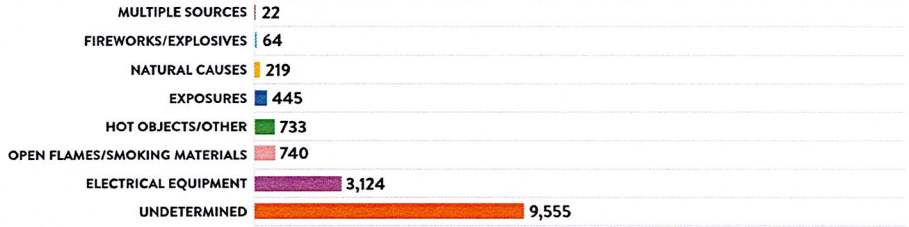
HEAT SOURCE AND CAUSE OF IGNITION

STRUCTURE, VEHICLE, AND OTHER FIRES BY HEAT SOURCE

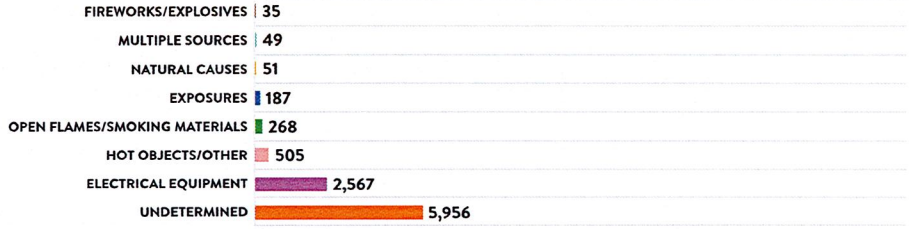
OTHER FIRES



STRUCTURE FIRES



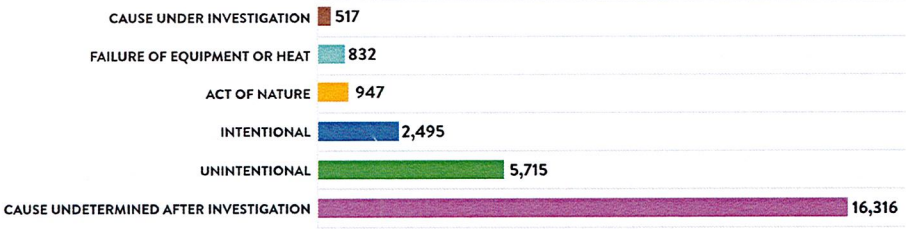
VEHICLE FIRES



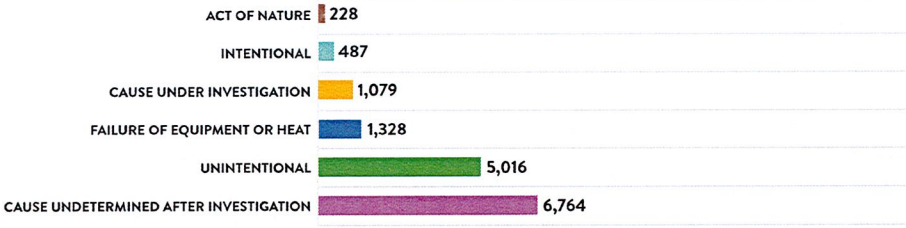
NIFRS is the source of this data which was provided by the reporting fire departments.

STRUCTURE, VEHICLE, AND OTHER FIRES BY CAUSE OF IGNITION

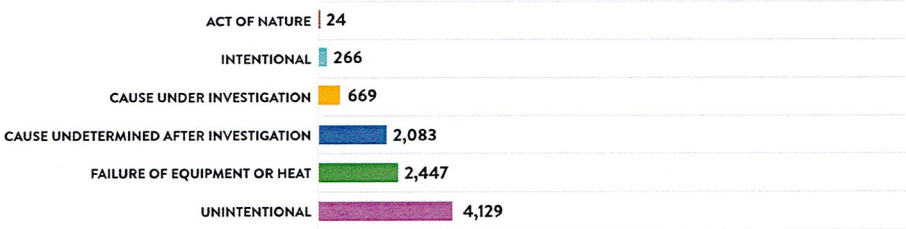
OTHER FIRES



STRUCTURE FIRES



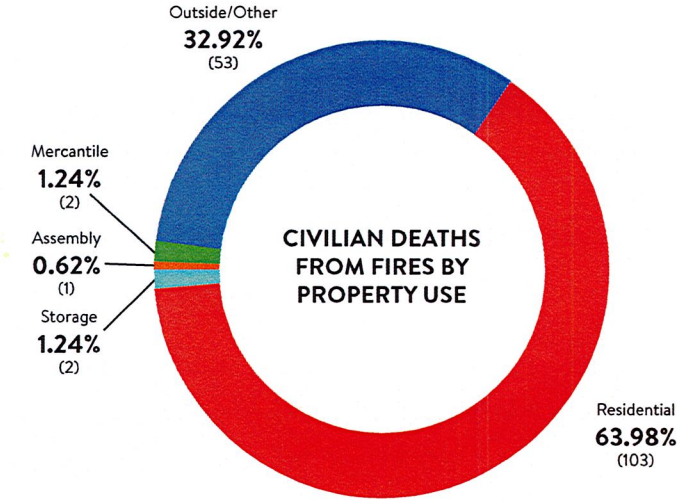
VEHICLE FIRES



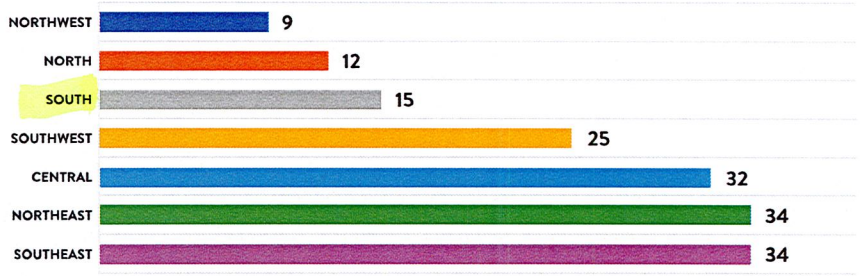
NIFRS is the source of this data which was provided by the reporting fire departments.

CIVILIAN DEATHS FROM FIRES

There were **161** civilians that died in 2021 from fire related incidents based on data received from the Department of Health, Vital Statistics Section. This represents a **6.024%** decrease in total fire related deaths compared to 2020. The following graph depicts the property that the incident took place.



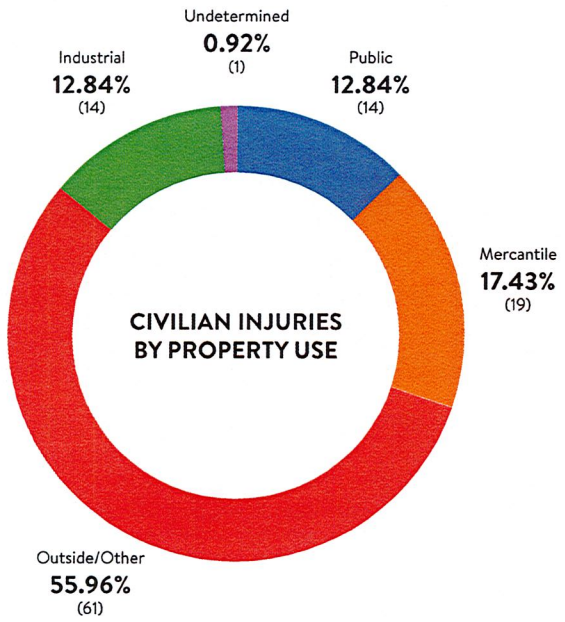
CIVILIAN DEATHS BY REGION



CIVILIAN INJURIES FROM FIRES BY PROPERTY USE

FLORIDA REGIONAL FIRE AND NON-FIRE TOTALS: CIVILIAN INJURIES

Central	858
North	161
Northeast	430
Northwest	208
South	346
Southeast	649
Southwest	1,223
TOTAL	**3,875**



Hillsborough County Fire Rescue

Hillsborough County Fire Rescue

CIVILIAN DEATHS BY COUNTY

There were **161** fire related deaths reported for 2021 based on the data received from Department of Health, Vital Statistics Section. This graph depicts the counties in which the death occurred. If the county is not on this chart then there were no deaths to report.

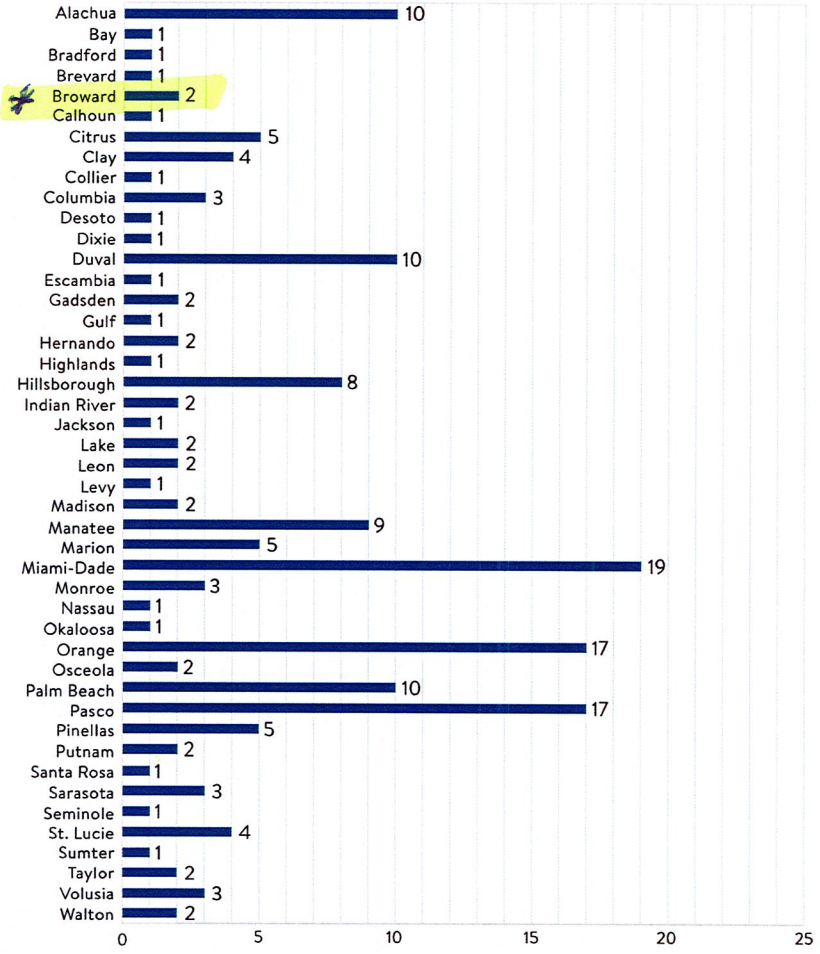
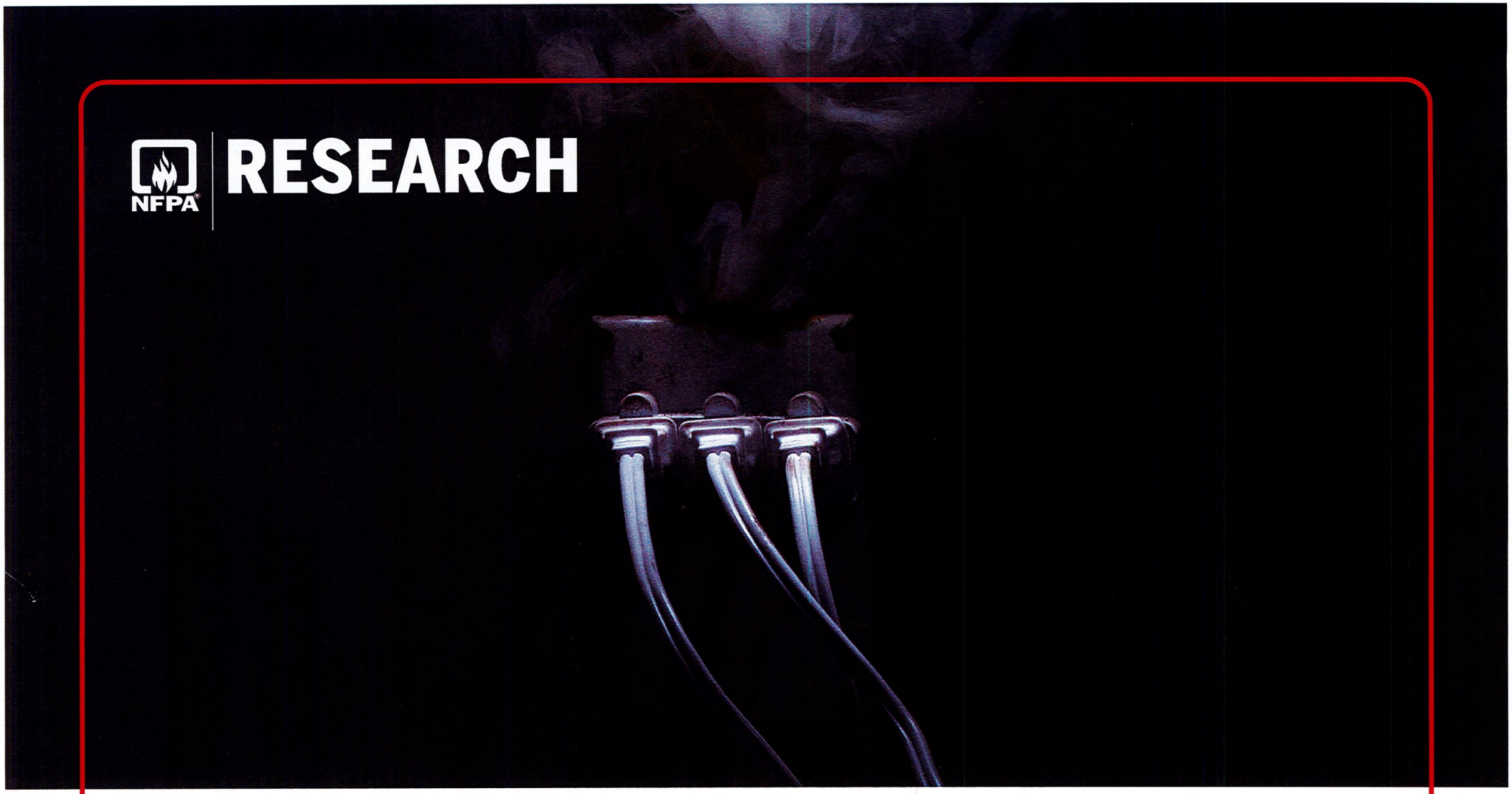


EXHIBIT #2



NFPA® | RESEARCH

HOME FIRES CAUSED BY ELECTRICAL DISTRIBUTION AND LIGHTING EQUIPMENT

Richard Campbell
February 2022

Key Findings

- Local fire departments responded to an estimated average of 32,620 home fires involving electrical distribution and lighting equipment per year in 2015–2019.
- Home fires involving electrical distribution and lighting equipment caused an estimated average of 430 civilian deaths and 1,070 civilian injuries per year in 2015–2019, as well as an estimated $1.3 billion in direct property damage each year.
- Home fires involving electrical distribution and lighting equipment most often originated in a bedroom (16 percent of the total), attic or ceiling (11 percent), or wall assembly or concealed space (8 percent).
- Approximately one-quarter (23 percent) of these fires occurred between midnight and 8 a.m., but they accounted for just over half (52 percent) of the deaths.

Home Fires Involving Electrical Distribution and Lighting Equipment

In 2015–2019, US fire departments responded to an estimated average of 32,620 fires in homes that involved electrical distribution and lighting equipment.[1] These fires accounted for 430 civilian deaths; 1,070 civilian injuries; and $1.3 million in direct property damage each year.

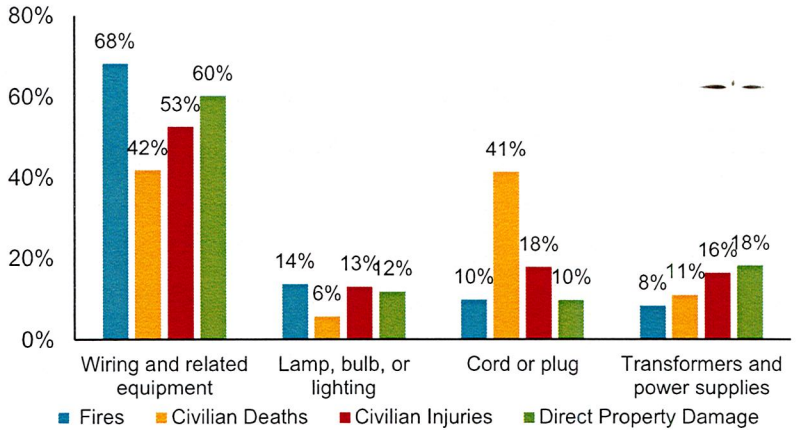
Types of Electrical Distribution and Lighting Equipment Involved in Home Fires

As shown in Figure 1, wiring and related equipment accounted for just over two-thirds (68 percent) of the home fires caused by electrical distribution and lighting equipment and 60 percent of the direct property damage, as well as two in five (42 percent) of the civilian deaths and over half (53 percent) of the injuries.

Faulty wiring in concealed spaces, such as attics or areas behind walls, is particularly dangerous because it can start fires that burn for a prolonged period before detection.

In addition, aluminum wire connections are prone to deterioration that can result in increased resistance to electric current. The cumulative damage of such deterioration can produce hazardous overheating; as a result, the Consumer Product Safety Commission recommends that home aluminum wiring be replaced or repaired by a qualified electrician to reduce the potential for fire.

Figure 1. Types of Electrical Distribution and Lighting Equipment Involved in Home Fires: 2015–2019

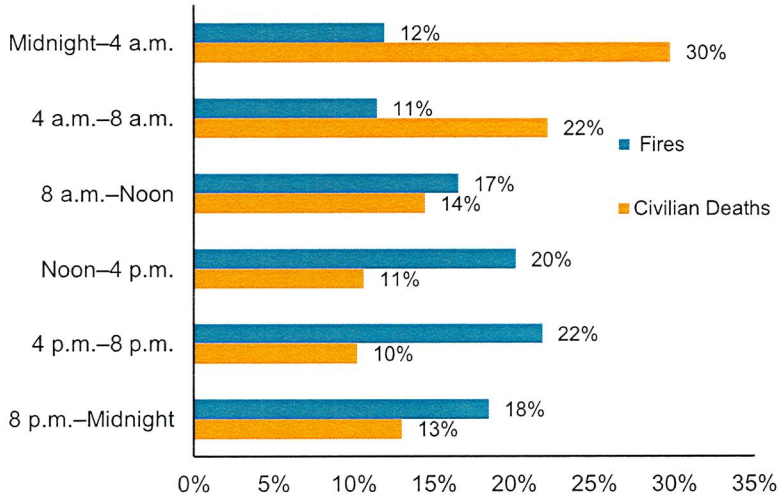


[1] A change in NFIRS data entry rules in 2012 for incidents with equipment-related heat sources or factors contributing to ignition is likely to have influenced estimates of electrical distribution and lighting equipment fires.

Timing of Fires Involving Electrical Distribution and Lighting Equipment

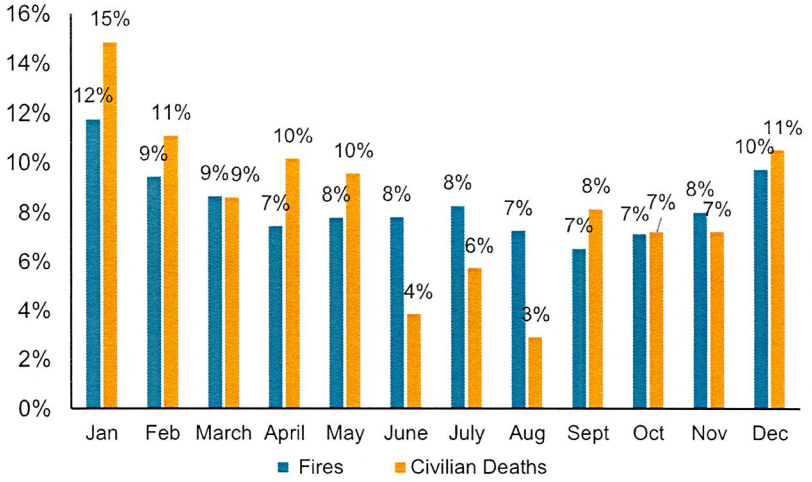
Home fires involving electrical distribution and lighting equipment were less likely to occur in the overnight hours between midnight and 8 a.m. (23 percent of the total). However, these fires accounted for over half (52 percent) of the civilian deaths in 2015–2019, likely as a result of people being home and asleep at those times. See Figure 2 for more information.

Figure 2. Home Fires Involving Electrical Distribution and Lighting Equipment by Time of Day: 2015–2019



The peak months for home fires involving electrical distribution or lighting equipment were the winter months of December, January, February, and March (40 percent of the total). These fires also accounted for 45 percent of the civilian deaths. This is likely because people are usually in the home and using electrical equipment during the cold weather months. Another one-quarter (24 percent) of the fires occurred from May through July, but those fires accounted for only 19 percent of the civilian deaths. See Figure 3.

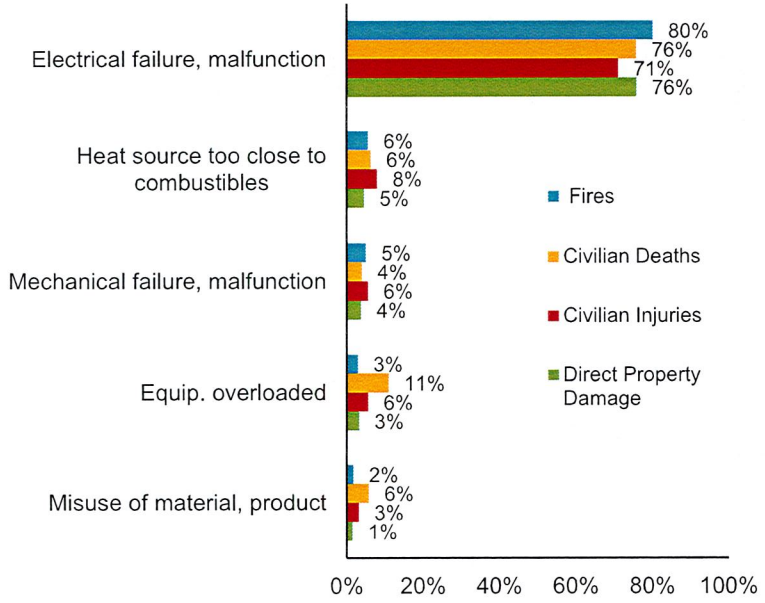
Figure 3. Home Fires Involving Electrical Distribution and Lighting Equipment by Month: 2015–2019



Factors Contributing to Ignition of Home Fires Involving Electrical Distribution and Lighting Equipment

Electrical failures or malfunctions were a factor contributing to the ignition of nearly four out of every five (80 percent) of the home fires involving electrical distribution or lighting equipment, and these fires accounted for three-quarters (76 percent) of the civilian deaths and direct property damage (76%) and seven in ten (71 percent) of the civilian injuries. Other factors contributing to home fires involving electrical distribution and lighting equipment included heat sources being too close to combustibles, mechanical failures or malfunctions, overloaded equipment, and unclassified misuse of products or materials.

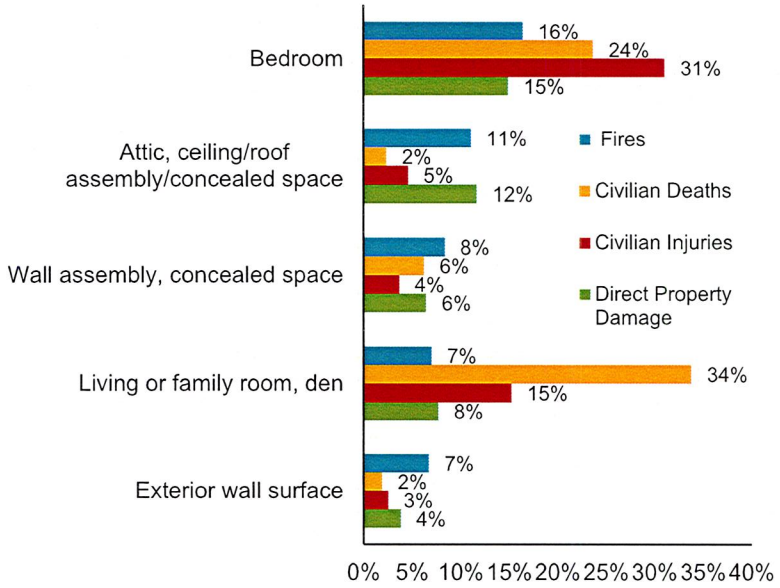
Figure 4. Factors Contributing to Ignition of Home Fires Involving Electrical Distribution and Lighting Equipment: 2015–2019



Area of Origin in Home Fires Involving Electrical Distribution and Lighting Equipment

Almost one in six (16 percent) home fires involving electrical distribution or lighting equipment originated in a bedroom and one in ten (11 percent) originated in an attic or ceiling/roof assembly or concealed space. Fires originating in a living room, family room, or den accounted for a disproportionately large share of civilian deaths (34 percent), while those originating in a bedroom accounted for a disproportionately large share of civilian injuries (31 percent). Fires originating in concealed spaces, such as attics or ceiling roof assemblies, wall assemblies, and crawl spaces, were also common.

Figure 5. Area of Origin in Home Fires Involving Electrical Distribution and Lighting Equipment: 2015–2019



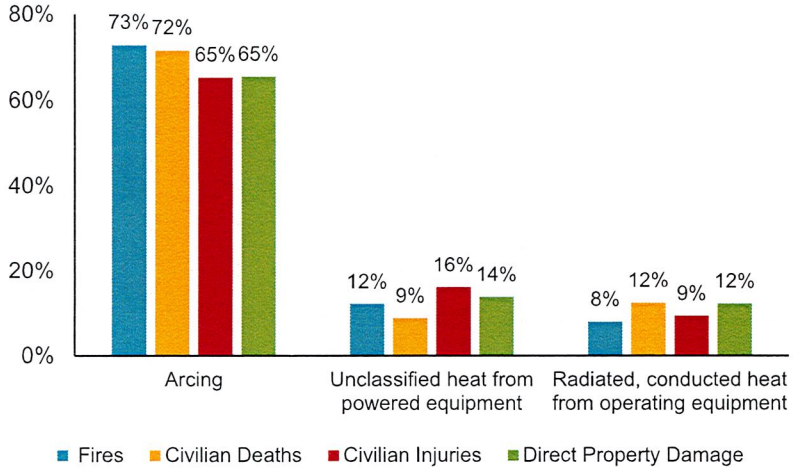
Item First Ignited in Home Fires Involving Electrical Distribution and Lighting Equipment

The item that first ignited in home fires involving electrical distribution and lighting equipment was electrical wire or cable insulation in 32 percent of the fires. One in three (34 percent) of the fires first ignited an item that was part of the building (structural member or framing, insulation within the building area, exterior or interior wall cover or finish, or structural component or finish). See Table 9 in the accompanying tables document for more information. This indicates the importance of the awareness of hidden electrical hazards, including electrical distribution and lighting equipment that is too close to combustible structural elements.

Heat Source in Home Fires Involving Electrical Distribution and Lighting Equipment

Arcing served as the heat source in almost three-quarters (73 percent) of the home fires involving electrical distribution and lighting equipment, and these fires also accounted for a great majority of the civilian deaths and injuries and direct property damage. The heat from powered or operating equipment accounted for another one in five fires and most of the remaining losses.

Figure 6. Heat Source in Home Fires Involving Electrical Distribution and Lighting Equipment, 2015–2019



Methodology

The statistics in this analysis are estimates derived from the US Fire Administration's National Fire Incident Reporting System (NFIRS) and the National Fire Protection Association's annual survey of US fire departments. Fires reported to federal or state fire departments or industrial fire brigades are not included in these estimates. Only civilian (non-firefighter) casualties are discussed in this analysis.

NFPA's fire department experience survey provides estimates of the big picture. NFIRS is a voluntary system through which participating fire departments can report detailed factors about the fires to which they respond. To compensate for fires reported to local fire departments but not captured in NFIRS, scaling ratios are calculated and then applied to the NFIRS database using the formula below.

$$\frac{\text{NFPA's fire experience survey projections}}{\text{NFIRS totals}}$$

The NFIRS data element of Factors Contributing to Ignition was used to identify and estimate electrical failures or malfunctions.

In this field, the code None is treated as an unknown and allocated proportionally. Multiple entries are allowed in this field. Percentages are calculated on the total number of fires, not entries, so some sums are greater than 100 percent.

Any fire in which no factor contributing to ignition was entered was treated as unknown.

Entries in the electrical failure, malfunction category (factor contributing to ignition 30–39) were grouped together in this analysis. This category includes the following:

31. Water-caused short-circuit arc
32. Short-circuit arc from mechanical damage
33. Short-circuit arc from defective or worn insulation
34. Unspecified short-circuit arc
35. Arc from faulty contact or broken connector, including broken power lines and loose connections
36. Arc or spark from operating equipment, switch, or electric fence
37. Fluorescent light ballast
30. Electrical failure or malfunction, other

NFIRS data element Equipment Involved in Ignition (EII) codes 200–263 were used to identify and estimate fires caused by electrical distribution and lighting equipment.

NFPA noticed that many fires in which the EII was coded as None (NNN) had other causal factors that indicated equipment was a factor or that were completely unknown. To compensate, NFPA treated fires in which EII =

NNN and the heat source was not in the range of 40–99 as additional unknowns.

To allocate unknown data for EII, known data is multiplied by:

$$\frac{\text{All fires}}{[\text{All fires} - \text{blank} - \text{undetermined} - (\text{fires in which EII} = \text{NNN and heat source} <> 40\text{–}99)]}$$

In addition, fires and losses associated with code EII 200, electrical distribution, lighting, and power transfer, other, were allocated proportionally across specific kitchen and equipment codes in 211–263. Equipment that is totally unclassified (EII code 000) was not allocated further. Unfortunately, equipment that was truly different was erroneously assigned to other categories.

Because of the large number of specific EII codes, most have been grouped into more general categories.

Code Grouping	EII Code	NFIRS definition
Fixed wiring and related equipment	210	Unclassified electrical wiring
	211	Electrical power or utility line
	212	Electrical service supply wires from utility
	213	Electric meter or meter box
	214	Wiring from meter box to circuit breaker
	215	Panelboard, switchboard, or circuit breaker board
	216	Electrical branch circuit
	217	Outlet or receptacle
	218	Wall switch
	219	Ground fault interrupter
Transformers and power supplies	221	Distribution-type transformer
	222	Overcurrent, disconnect equipment
	223	Low-voltage transformer
	224	Generator
	225	Inverter
	226	Uninterrupted power supply (UPS)
	227	Surge protector
	228	Battery charger or rectifier
	229	Battery (all types)
Lamp, bulb, or lighting	230	Unclassified lamp or lighting
	231	Lamp — tabletop, floor, or desk
	232	Lantern or flashlight
	233	Incandescent lighting fixture
	234	Fluorescent light fixture or ballast
	235	Halogen light fixture or lamp
	236	Sodium or mercury vapor light fixture or lan
	237	Work or trouble light
	238	Light bulb
	241	Nightlight
	242	Decorative lights — line voltage
	243	Decorative or landscape lighting — low voltage
	244	Sign
Cord or plug	260	Unclassified cord or plug
	261	Power cord or plug, detachable from appliance
	262	Power cord or plug — permanently attached
	263	Extension cord

For more information on the methodology used for this report, see *How NFPA's National Estimates Are Calculated for Home Structure Fires.*

Acknowledgments

The National Fire Protection Association thanks all the fire departments and state fire authorities who participate in the National Fire Incident Reporting System (NFIRS) and the annual NFPA fire experience survey. These firefighters are the original sources of the detailed data that makes this analysis possible. Their contributions allow us to estimate the size of the fire problem.

We are also grateful to the US Fire Administration for its work in developing, coordinating, and maintaining NFIRS.

To learn more about research at NFPA visit nfpa.org/research.
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NFPA No. USS117

EXHIBIT #3

Broward County Board of Rules and Appeals Policy # 05-05

Subject: Broward County Board of Rules and Appeals – Building Safety Inspection Program

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I. GENERAL:

A. Section 110.15 of the Broward County Administrative Provisions of the Florida Building Code has established a **Building Safety Inspection Program.**

B. The procedures established herein are the basic guidelines for the Building Safety Inspection program.

C. The requirements contained in the Florida Building Code, covering the maintenance of buildings, shall apply to all buildings and/or structures now existing or hereafter erected. All buildings and/or structures and all parts thereof shall be maintained in a safe condition, and all devices or safeguards that are required by the Florida Building Code shall be maintained in good working order. Electrical wiring, apparatus and equipment, and installations for light heat or power and low voltage systems as are required and/or regulated by the Building Code, now existing, or hereinafter installed, shall be maintained in a safe condition and all devices and safeguards shall be maintained in good working order.

D. These guidelines shall not be construed as permitting the removal or non-maintenance of any existing devices or safeguards unless authorized by the Building Official.

II. DEFINITIONS:

A. **"Threshold Building"** shall be defined as any building which is greater than three stories or 50 feet in height, or which has an assembly occupancy classification as defined in the Florida Building Code which exceeds 5,000 square feet in area and an occupant content of greater than 500 persons, or as otherwise defined by section 553.71, Florida Statutes, which may be amended from time to time.

B. **"Minor Buildings or Structures"** for the purpose of this program, shall be defined as buildings or structures in any occupancy group having a gross area of less than 3,500 sq. ft.

1. Any building or structure which houses, covers, stores, or maintains any support features, materials, or equipment necessary for the operation of all or part of the primary structure, or operation of any feature located upon the real property, shall not be considered a minor building or structure and shall be subject to inspection as otherwise set forth herein.
2. Structures to be included in the Safety Inspection Program are elevated decks, docks, seawalls if attached to or supporting any structure, parking garages, and guardrails, and as such are not exempt.

C. **"Building Age"** shall be defined as the difference between (a) the present year and (b) the year-built information recorded with the County Property Appraiser notwithstanding any renovations or modifications that have been made to the building or structure since the year built.

III. BUILDING SAFETY INSPECTION OF BUILDINGS / STRUCTURES AND COMPONENTS:

A. For the purpose of these guidelines, **Building Safety Inspection** shall be construed to mean the requirement for the specific safety inspection of existing buildings and structures and furnishing the Building Official and Owner with a written report of such inspection as prescribed herein.

B. **Inspection procedures** shall conform to the minimum inspection procedural guidelines as issued by the Board of Rules and Appeals titled as "General Considerations & Guidelines for Building Safety Inspections" which are included as part of this Policy.

1. This inspection is for the sole purpose of identifying structural and electrical deficiencies of the building or structure that pose an immediate threat to life safety. This inspection is not to determine if the condition of an existing building complies with the current edition of the Florida Building Code or the National Electrical Code.
2. Such inspection shall be for the purpose of determining the structural & electrical condition of the building or structure, to the extent reasonably possible, of any part, material, or assembly of a building or structure which affects the safety of such building or structure, and/or which supports any dead load, live load, or wind load, and the general condition of its electrical systems pursuant to the applicable Codes.

3. The owner, or association if applicable, shall be responsible for all costs associated with the inspection, and the resulting required repairs and/or modifications.
4. The inspecting Professional shall have a right of entry into all areas he/she deems necessary to comply with the program.
5. The Building Official shall ensure that the owner(s), or their duly authorized representative(s), of all buildings and structures requiring inspection under these guidelines file the necessary documentation to confirm compliance with the guidelines set forth herein.

C. All buildings and structures shall be inspected in the manner described herein, where such buildings or structures are thirty (30) years of age or older, based on the date that the certificate of occupancy was issued, and as determined by the Building Official, who shall at such time issue a **Notice of Required Inspection** to the building owner or association.
   1. The following are **Exempt** from this program:
      a. U.S. Government Buildings
      b. State of Florida Buildings
      c. Buildings built on Indian Reservations,
      d. School Buildings under the jurisdiction of the Broward County School Board
      e. One and Two-Family Dwellings
      f. Fee Simple Townhouses as defined in the Florida Building Code
      g. Minor Structures defined as buildings or structures in any occupancy group having a gross floor area less than three thousand five hundred (3,500) square feet

D. All buildings that are a Condominium or Cooperative, and are three (3) stories or more in height, and are located within three (3) miles of the coastline, shall be inspected in the manner described herein, where such buildings are twenty-five (25) years of age or older, based on the date that the certificate of occupancy was issued, and as determined by the Building Official in accordance with Florida Statutes Section 553.899, who shall at such time issue a **Notice of Required Inspection** to the building owner or association.

E. Subsequent Building Safety Inspections shall be required at ten (10) year intervals from the year of the building or structure reaching 30 years or 25 years of age (as applicable) regardless of when the previous inspection report for the building or structure was finalized or filed.

F. For any building or structure that must perform a "milestone inspection," as provided under section 553.899, Florida Statutes, such building or structure is required to undergo inspection in the manner described herein when it has reached a Building Age where it is required to undergo a "milestone inspection" and such inspection shall serve as compliance with any "milestone inspection" requirements under section 553.899, Florida Statutes.

G. **Notices of Required Inspection:**
   1. The Building Official shall provide the owner or association of the building or structure with a **Notice of Required Inspection** relating to the required Building Safety Inspection once the Building Official has determined that a building or structure has attained a Building Age of 30 years (or 25 years, as applicable) and every 10-year interval thereafter.
   2. Each calendar year the Building Official shall determine which buildings or structures will reach the age of 30 years (or 25 years, as applicable) and every 10-year interval thereafter during that calendar year.
   3. Between the dates of June 1st and August 31st of each calendar year, the Building Official shall send out by Certified Mail Return Receipt Requested a **Notice of Required Inspection** to the owner or association of all such buildings or structures being due for Building Inspection during that calendar year. This notice shall clearly indicate that the owner shall furnish, or cause to be furnished, within ninety (90) days of the Notice of Required Building Safety Inspection, a written report including the Broward County Board of Rules and Appeals Structural and Electrical Safety Inspection Report Forms to the Building Official, prepared by a qualified Florida Licensed Professional Engineer or Florida Registered Architect, certifying that each such building or structure is structurally and electrically safe, or has been made structurally and electrically safe for the specified use for continued occupancy, in conformity with the minimum inspection procedural guidelines as issued by the Board of Rules and Appeals.
   4. **In addition to the Notice of Required Inspection**, between the dates of June 1st and August 31st of each calendar year, beginning in the year 2023, the Building Official shall provide the owner or association

with an **Advance Courtesy Notice** relating to their forthcoming Building Inspection. One courtesy notice shall be provided at two years prior to the Building Inspection due year, and one subsequent courtesy notice shall be provided at one year prior to the Building Inspection due year.

5. Notwithstanding the foregoing, the failure by a Building Official to provide a Notice of Required Inspection or Advance Courtesy Notices, shall not affect a building owner's or association's requirement to timely procure the required inspection and provide a written report and certification of a building or structure.

H. **Qualifications of Inspectors:**

1. If the building or structure is not a "Threshold Building" as defined by the Florida Building Code, required reports shall be prepared by a Florida Licensed Professional Engineer or Florida Registered Architect.
2. If the building or structure is a "Threshold Building", as defined herein, then:
    a. The structural portion of such report shall be prepared by a Professional Engineer licensed in the State of Florida specializing in structural design and certified as a "Special Inspector" under the Threshold Law F.S. 471.
    b. The electrical portion of such written report shall be prepared by a Professional Engineer licensed in the State of Florida specializing in electrical design.
    c. A self-qualification letter shall be submitted as part of the structural report for Threshold Buildings, stating that the Professional Engineer is a practicing structural engineer and has worked with buildings equivalent to the building being certified, and shall be accompanied by proof of the engineer's State of Florida Department of Business and Professional Regulation (DPBR) structural specialization.
3. Such Engineer or Architect shall undertake such assignments only where qualified by training and experience in the specific technical field involved in the inspection and report.

I. **Reporting Procedures:**

1. The owner of a building or structure subject to Building Safety Inspection shall furnish, or cause to be furnished, within ninety (90) days of the date of the Notice of Required Building Safety Inspection, a written report including the Broward County Board of Rules and Appeals Structural and Electrical Safety Inspection Report Forms to the Building Official, prepared by a qualified Florida Licensed Professional Engineer or Florida Registered Architect, certifying that each such building or structure is structurally and electrically safe, or has been made structurally and electrically safe, for the specified use for continued occupancy, in conformity with the minimum inspection procedural guidelines as issued by the Board of Rules and Appeals.
2. The inspection report shall at a minimum meet all the following criteria:
    a. Such written report shall bear the impressed seal and signature of the responsible Engineer or Architect who has performed the inspection, unless submitted electronically with a verifiable digital signature as described in section 668.001, Florida Statutes.
    b. In addition to a detailed written narrative report, the completed BORA Structural and Electrical Safety Inspection Report Forms shall be submitted as part of the report.
    c. Sufficient color photos with sufficient resolution shall be included to adequately convey typical conditions observed, particularly where defects have been found.
    d. Indicate the manner and type of inspection forming the basis for the inspection report.
    e. Identify any substantial structural deterioration, within a reasonable professional probability based on the scope of the inspection, describe the extent of such deterioration, and identify any recommended repairs for such deterioration.
    f. State whether any unsafe or dangerous conditions, as those terms are defined in the Florida Building Code, were observed.
    g. Recommend any remedial or preventive repair for any items that are damaged but are not substantial structural deterioration.
    h. Identify and describe any items requiring further inspection.

3. If the building inspected is a Condominium or Cooperative, the Association shall distribute a copy of an inspector- prepared summary of the inspection report to each condominium unit owner or cooperative unit owner, regardless of the findings or recommendations in the report, by United States Mail or personal delivery, and by electronic transmission to unit owners who previously consented to receive notice by electronic transmission; shall post a copy of the inspector-prepared summary in a conspicuous place on the condominium or cooperative property; and shall publish the full report and inspector-prepared summary on the association's website, if the association is required to have a website.
4. Such report shall be deemed timely if submitted any time between (a) two years prior to the applicable required Building Safety Inspection year for the building or structure, and (b) 90 days after the date of the Notice of Required Inspection, including any applicable extension periods granted or provided by the Building Official.

J. **Duty to Report:** Any Licensed Professional Engineer or Registered Architect who performs an inspection of an existing building or structure has a duty to report to the Building Official any findings that, if left unaddressed, would endanger life or property, no later than ten (10) days after informing the building owner of such findings unless the Engineer or Architect is made aware that action has been taken to address such findings in accordance with the applicable code. However, if such Engineer or Architect finds that there are conditions in the building or structure causing an actual or immediate danger of the failure or collapse of the building or structure, or if there is a health hazard, windstorm hazard, fire hazard, or any other life safety hazard, such Engineer or Architect shall report such conditions immediately to the Building Owner and to the Building Official within twenty-four (24) hours of the time of discovery. In addition to assessing any fines or penalties provided by Broward County or the Municipality, the Building Official shall also report any violations of this provision to the appropriate licensing agency, regulatory board, and professional organization of such Engineer or Architect.

K. **Required Repairs or Modifications:**
1. In the event that repairs or modifications are found to be necessary as a result of the Building Safety Inspection, the owner shall have a total of 180 days from the date of the Building Safety Inspection Report, unless otherwise specified by the Building Official in accordance with Florida Building Code Section 110.15 (Florida Building Code Broward County Amendments), in which to complete required repairs and correct the structural and electrical deficiencies. All applicable Building Code requirements shall be followed with all applicable permits obtained. The Florida Existing Building Code will specify whether the repairs or modification can be made under the code in effect when the building was originally permitted, or the code currently in effect.
2. When any electrical or structural repairs or modifications are required, the responsible Engineer or Architect who has performed the building safety inspection and issued the report shall provide the Building Owner and the Building Official with a signed and sealed letter indicating whether the building or structure may continue to be safely occupied while the building or structure is undergoing repairs. Such letter shall be valid for no more than 180 days, and a new letter shall be issued if repairs or modifications remain ongoing.
3. For deficiencies that cannot be corrected within 180 days, the time frame may be extended when a time frame is specified by the responsible Licensed Professional Engineer or Registered Architect and approved by the Building Official. Such extension shall be contingent on maintaining an active building permit as specified in Florida Building Code Section 105.3.2 (Florida Building Code Broward County Amendments).
4. Once all required repairs, whether structural or electrical or both, have been completed, the responsible Licensed Professional Engineer or Registered Architect who has performed the safety inspection and issued the report shall re-inspect the areas noted on the original report and shall provide the Building Owner and Building Official an amended report with a signed and sealed letter stating that all of the required repairs and corrections have been completed and that the building or structure has been certified for continued use under the present occupancy. The Building Owner or responsible Professional shall submit that letter to the Building Official.
5. The Building Official may issue an extension of not more than 60 days to submit a Building Safety Inspection report, or to obtain any necessary permits, upon a written extension request from a Licensed

Professional Engineer or Registered Architect qualified as stated herein for the type of building or structure in question. Such request shall contain a signed and sealed statement from the Engineer or Architect that the building may continue to be occupied while undergoing the Building Safety Inspection and Certification.

L. If an owner of a building or structure fails to timely submit the Building Safety Inspection Program report to the Building Official or seek an extension request in accordance with the above, the Building Official shall elect the choice of either a Special Magistrate or Code Enforcement Board as set forth under Florida Statutes Sec. 162, et. al., to conduct a hearing to address such failure. In the event an owner fails to comply with the repair and/or modification requirements as determined from the Building Safety Inspection Report as set forth herein, the structure may be deemed to be unsafe and unfit for occupation. Such findings shall be reviewed by the Building Official and shall be sent to the Special Magistrate, Code Enforcement Board, or Unsafe Structures Board, as appropriate.

M. If a building or structure is found to be Unsafe, the requirements of Section 116 of Chapter One of the Broward County Amendments to the Florida Building Code entitled "Unsafe Structures" shall be followed.

N. The Building Official may revoke any Building Safety Inspection and Certification if the Building Official determines that the written inspection report contains any misrepresentation of the actual conditions of the building or structure.

General Considerations & Guidelines for Building Safety Inspections Part of Broward County BORA Policy #05-05

I. SCOPE OF STRUCTURAL INSPECTION

The **fundamental purpose** of the required Building Safety Inspection and report is to confirm in reasonable fashion that the building or structure under consideration is safe for continued use under its present occupancy. As implied by the title of this document, this is a recommended procedure, and under no circumstances are these minimum recommendations intended to supplant proper professional judgment.

Such inspection shall be for the purpose of determining the general structural condition of the building or structure to the extent reasonably possible of any part, material or assembly of a building or structure which affects the safety of such building or structure and/or which supports any dead load, live load, or wind load, and the general condition of its electrical systems pursuant to the applicable Codes.

In general, unless there is obvious overloading, or significant deterioration of important structural elements, there is little need to verify the original design. It is obvious that this has been time tested if still offering satisfactory performance. Rather, it is of importance that the effects of time with respect to degradation of the original construction materials be evaluated. It will rarely be possible to visually examine all concealed construction, nor should such be generally necessary. However, a sufficient number of typical structural members should be examined to permit reasonable conclusions to be drawn.

Visual Examination will, in most cases, be considered adequate when executed systematically. The visual examination must be conducted throughout all habitable and non-habitable areas of the building, as deemed necessary, by the inspecting professional to establish compliance. Surface imperfections such as cracks, distortion, sagging, excessive deflections, significant misalignment, signs of leakage, and peeling of finishes should be viewed critically as indications of possible difficulty.

Testing Procedures and quantitative analysis will not generally be required for structural members or systems except for such cases where visual examination has revealed such need, or where apparent loading conditions may be critical.

Manual Procedures such as chipping small areas of concrete and surface finishes for closer examinations are encouraged in preference to sampling and/or testing where visual examination alone is deemed insufficient. Generally, unfinished areas of buildings such as utility spaces, maintenance areas, stairwells and elevator shafts should be utilized for such purposes. In some cases, to be held to a minimum, ceilings or other construction finishes may have to be opened for selective examination of critical structural elements. In that event, such locations should be carefully located to be least disruptive, most easily repaired and held to a minimum. In any event, a sufficient number of structural members must be examined to afford reasonable assurances that such are representative of the total structure.

Evaluating an existing structure for the effects of time, must take into account two basic considerations; movement of structural components with respect to each other, and deterioration of materials.

With respect to the former, volume change considerations, principally from ambient temperature changes, and possibly long-time deflections, are likely to be most significant. Foundation movements will frequently be of importance, usually settlement, although upward movement due to expansive soils may occur, although infrequently in this area. Older buildings on spread footings may exhibit continual, even recent settlements if founded on deep unconsolidated fine grained or cohesive coils, or from subterraneous losses or movements from several possible causes.

With very little qualifications, such as rather rare chemically reactive conditions deterioration of building materials can only occur in the presence of moisture, largely related to metals and their natural tendency to return to the oxide state in the corrosive process.

In this marine climate, highly aggressive conditions exist year-round. For most of the year, outside relative humidity may frequently be about 90 or 95%, while within air-conditioned building, relative humidity will normally be about 55% to 60%. Under these conditions moisture vapor pressures ranging from about 1/3 to 1/2 pounds per square inch will exist

much of the time. Moisture vapor will migrate to lower pressure areas. Common building materials such as stucco, masonry and even concrete, are permeable even to these slight pressures. Since most of our local construction does not use vapor barriers, condensation will take place within the enclosed walls of the building. As a result, deterioration is most likely adjacent to exterior walls, or wherever else moisture or direct leakage has been permitted to penetrate the building shell.

Structural Deterioration will always require repair. The type of repair, however, will depend upon the importance of the member in the structural system, and degree of deterioration. Cosmetic type repairs may suffice in certain non-sensitive members such as tie beams and columns, provided that the remaining sound material is sufficient for the required function. For members carrying assigned gravity or other loads, cosmetic type repairs will only be permitted if it can be demonstrated by rational analysis that the remaining material, if protected from further deterioration can still perform its assigned function at acceptable stress levels. Failing that, adequate repairs or reinforcement will be considered mandatory.

Written Reports shall be required attesting to each required inspection. Each such report shall note the location of the structure, description of the type of construction, and general magnitude of the structure, the existence of drawings and location thereof, history of the structure to the extent reasonably known, and a description of the type and manner of the inspection, noting problem areas and recommended repairs, if required to maintain structural integrity. See additional reporting requirements outlined in the foregoing of the Policy.

Each report shall include a statement to the effect that the building or structure is structurally safe, unsafe, safe with qualifications, or has been made safe. It is suggested that each report also include the following information indicating the actual scope of the report and limits of liability. This paragraph may be used:

> *"As a routine matter, in order to avoid possible misunderstanding, nothing in this report should be considered to be a guarantee for any portion of the structure. To the best of my knowledge and ability, this report represents an accurate appraisal of the present condition of the building based upon careful evaluation of observed conditions, to the extent reasonably possible."*

Foundations

If all of the supporting subterranean materials were completely uniform beneath a structure, with no significant variations in grain size, density, moisture content or other mechanical properties; and if dead load pressures were completely uniform, settlements would probably be uniform and of little practical consequence. In the real world, however, neither is likely. Significant deviations from either of these two idealisms are likely to result in unequal vertical movements.

Monolithic masonry, structures are generally incapable of accepting such movements, and large openings. Since, in most cases, differential shears are involved, cracks will typically be diagonal.

Small movements, in themselves, are most likely to be structurally important only if long term leakage through fine cracks may have resulted in deterioration. In the event of large movements, contiguous structural elements such as floor and roof systems must be evaluated for possible fracture or loss of bearing.

Pile foundations are, in general, less likely to exhibit such difficulties. Where such does occur, special investigation will be required.

Roofs

Sloping roofs, usually having clay or cement tiles, are of concern in the event that the covered membrane may have deflections, if merely resulting from deteriorated rafters or joists will be of greater import. Valley flashing and base flashing at roof penetration will also be matters of concern.

Flat roofs with built up membrane roofs will be similarly critical with respect to deflection considerations. Additionally, since they will generally be approaching expected life limits at the age when The Building Safety Inspection is required, careful examination is important. Blisters, wrinkling, alligatoring, and loss of gravel are usual signs of difficulty.

Punctures or loss of adhesion of base flashings, coupled with loose counterflashing will also signify possibility of other debris, may result in ponding, which if permitted, may become critical.

Masonry Bearing Walls

Random cracking, or if discernible, definitive patterns of cracking, will of course, be of interest. Bulging, sagging, or other signs of misalignment may also indicate related problems in other structural elements. Masonry walls where commonly constructed of either concrete masonry units, or scored clay tile, may have been con- structed with either reinforced concrete columns and tie beams, or lintels.

Of most probable importance will be the vertical and horizontal cracks where masonry units abut tie columns, or other frame elements such as floor slabs. Of interest here is the observation that although the raw materials of which these masonry materials are made may have much the same mechanical properties as the reinforced concrete framing, their actual behavior in the structure, however, is likely to differ with respect to volume change resulting from moisture content, and variations in ambient thermal conditions.

Moisture vapor penetration, sometimes abetted by salt laden aggregate and corroding rebars, will usually be the most common cause of deterioration. Tie columns are rarely structurally sensitive, and a fair amount of deterioration may be tolerated before structural; impairment becomes important. Cosmetic type repair involving cleaning, and parching to effectively seal the member, may often suffice. A similar approach may not be unreasonable for tie beams, provided they are not also serving as lintels. In that event, a rudimentary analysis of load capability using the remaining actual rebar area, may be required.

Floor and Roof Systems

Cast in place reinforced concrete slabs and/or beams and joists may often show problems due to corroding rebars resulting from cracks or merely inadequate protecting cover of concrete. Patching procedures will usually suffice where such damage has not been extensive. Where corrosion and spalling has been extensive in structurally critical areas, competent analysis with respect to remaining structural capacity, relative to actual supported loads, will be necessary. Type and extent of repair will be dependent upon the results of such investigation.

Pre-cast members may present similar deterioration conditions. End support conditions may also be important. Adequacy of bearing, indications of end shear problems, and restraint conditions are important, and should be evaluated in at least a few typical locations.

Steel bar joists are, or course, sensitive to corrosion. Most critical locations will be web member welds, especially near supports, where shear stresses are high and possible failure may be sudden, and without warning.

Cold formed steel joists, usually of relatively light gage steel, are likely to be critically sensitive to corrosion, and are highly dependent upon at least nominal lateral support to carry designed loads. Bridging and the floor or roof system itself, if in good condition, will serve the purpose.

Wood joists and rafters are most often in difficulty from "dry rot", or the presence of termites. The former (a misnomer) is most often prevalent in the presence of sustained moisture or lack of adequate ventilation. A member may usually be deemed in acceptable condition if a sharp pointed tool will penetrate no more than about one eighth of an inch under moderate hand pressure. Sagging floors will most often indicate problem areas.

Gypsum roof decks will usually perform satisfactorily except in the presence of moisture. Disintegration of the material and the form-board may result from sustained leakage. Anchorage of the supporting bulb tees against uplift may also be of importance.

Floor and roof systems of cast in place concrete with self-centering reinforcing, such as paper backed mesh and rib-lath, may be critical with respect to corrosion of the unprotected reinforcing. Loss of uplift anchorage on roof decks will also be important if significant deterioration has taken place, in the event that dead loads are otherwise inadequate for that purpose. Expansion joints exposed to the weather must also be checked.

Steel Framing System

Corrosion, obviously enough, will be the determining factor in the deterioration of structural steel. Most likely suspect areas will be fasteners, welds, and the interface area where bearings are embedded in masonry. Column bases may often be suspect in areas where flooding has been experienced, especially if salt water has been involved. Concrete fireproofing will, if it exists, be the best clue indicating the condition of the steel.

Concrete Framing Systems

Concrete deterioration will, in most cases, similarly be related to rebar corrosion possibly abetted by the presence of saltwater aggregate or excessively permeable concrete. In this respect, honeycomb areas may contribute adversely to the rate of deterioration. Columns are frequently most suspect. Extensive honeycomb is most prevalent at the base of columns, where fresh concrete was permitted to segregate, dropping into form boxes. This type of problem has been known to be compounded in areas where flooding has occurred, especially involving salt water.

Thin cracks usually indicate only minor corrosion, requiring minor patching only. Extensive spalling may indi- cate a much more serious condition requiring further investigation.

In spall areas, chipping away a few small loose samples of concrete may be very revealing. Especially, since loose material will have to be removed even for cosmetic type repairs, anyway. Fairly reliable quantitative conclusions may be drawn with respect to the quality of the concrete. Even though our cement and local aggregate are essentially derived from the same sources, cement will have a characteristically dark grayish brown color in contrast to the almost white aggregate. A typically white, almost alabaster like coloration will usually indicate reasonably good overall strength.

Windows and Doors

Window and door condition is of considerable importance with respect to two considerations. Continued leak- age may have resulted in other adjacent damage and deteriorating anchorage may result in loss of the entire unit in the event of severe windstorms even short of hurricane velocity. Perimeter sealants, glazing, seals, and latches should be examined with a view toward deterioration of materials and anchorage of units for inward as well as outward (suction) pressure, most importantly in high buildings.

Structural Glazing

When installed on threshold buildings, structural glazing curtain wall systems, shall be inspected by the owner at 6-month intervals for the first year after completion of the installation. The purpose of the inspection shall be to determine the structural condition and adhesive capacity of the silicone sealant. Subsequent inspections shall be performed at least once every 5 years at regular intervals for structurally glazed curtain wall systems installed on threshold buildings.

Wood Framing

Older wood framed structures, especially of the industrial type, are of concern in that long term deflections may have opened important joints, even in the absence of deterioration. Corrosion of ferrous fasteners will in most cases be obvious enough. Dry rot must be considered suspect in all sealed areas where ventilation has been inhibited, and at bearings and at fasteners. Here too, penetration with a pointed tool greater than about one eighth inch with moderate hand pressure will indicate the possibility of further difficulty.

Building Facade

Appurtenances on an exterior wall of a threshold building are elements including, but not limited to, any clad- ding material, precast appliques, exterior fixtures, ladders to rooftops, flagpoles, signs, railings, copings, guard- rails, curtain walls, balcony and terrace enclosures, including greenhouses or solariums, window guards, window air conditioners, flower boxes, satellite dishes, antennae, cell phone towers, and any equipment attached to or protruding from the façade that is mechanically and/or adhesive attached.

Loading

It is of importance to note that even in the absence of any observable deterioration, loading conditions must be viewed with caution. Recognizing that there will generally be no need to verify the original design, since it will have already been "time tested", this premise has validity only if loading patterns and conditions **remain unchanged.** Any material change in type and/or magnitude or loading in older buildings should be viewed as sufficient justification to examine load carrying capability of the affected structural system.

II. SCOPE OF ELECTRICAL INSPECTION

The purpose of the required inspection and report is to confirm with reasonable fashion that the building or structure and all habitable and non-habitable areas, as deemed necessary by the inspecting professional, to establish compliance are safe for continued use under present occupancy. As mentioned before, this is a recommended procedure, and under no circumstances are these minimum recommendations intended to supplant proper professional judgment.

Electric Service

A description of the type of service supplying the building or structure shall be provided, stating the size of amperage, if three (3) phase or single (1) phase, and if the system is protected by fuses or breakers. Proper grounding of the service should also be in good standing. The meter and electric rooms should have sufficient clearance for equipment and for the serviceman to perform both work and inspections. Gutters and electrical panels should all be in good condition throughout the entire building or structure.

Branch Circuits

Branch circuits in the building must all be identified, and an evaluation of the conductors must be performed. Proper grounding must be verified for all equipment used in the building, such as an emergency generator, or elevator motors.

Conduit Raceways

All types of wiring methods present in the building must be detailed and individually inspected. The evaluation of each type of conduit and cable, if applicable, must be done individually. The conduits in the building should be free from erosion and checked for considerable dents in the conduits that may be prone to cause a short. The conductors and cables in these conduits should be chafe free and their currents not over the rated amount.

Emergency Lighting

Exit sign lights and emergency lighting, along with a functional fire alarm system, if applicable, must all be in good working condition.

Infrared Thermography Inspection - ***The effective date of this section shall be July 1, 2023.***

For electrical services operating at 400 amperes or greater, an infrared thermography inspection with a written report of the following electrical equipment must be provided as applicable or as otherwise indicated below: busways, switchgear, panelboards (except in dwelling unit load centers), disconnects, VFDS, starters, control panels, timers, meter centers, gutters, junction boxes, automatic/manual transfer switches, exhaust fans and transformers. The infrared inspection of electrical equipment shall be performed by a Level-II or higher certified infrared thermographer who is qualified and trained to recognize and document thermal anomalies in electrical systems and possesses over 5 years of experience inspecting electrical systems associated with commercial buildings.

III. HISTORICAL DOCUMENTS, PERMITTING, REPAIRS AND REPORTS

An attempt shall be made to investigate the existence of documents with the local jurisdiction to assist with the overall inspection of the building.

Understanding the structural system, building components, and intended design may guide the design professional to investigate certain critical areas of the structure.

Violations through code compliance division of the local jurisdiction should be investigated. Cases on file may lead to issues pre-existing with the building, especially any unsafe structure determinations. Depending on the nature of the violation, Building Safety Inspections may be affected.

Unpermitted activities may also affect the outcome of a Building Safety Inspection, especially with unpermitted additions to the building. The Building Safety Inspection of a building is conducted on the entire structure including the original construction and any subsequent permitted addition. Unpermitted additions found by the Building Safety Inspection process present an unsafe situation and shall be identified in the report, even if found to be properly built. Like a repair process identified by the report, legalizing an unpermitted addition would be a prerequisite to the completion of a successful Building Safety Inspection report. Examples of unpermitted work that may affect Building Safety Inspections include, but are not limited to, additions, alterations, balcony enclosures, etc.

Repairs identified in the Building Safety Inspection report will most likely require permits. Once the initial report is completed it should be immediately submitted to the local jurisdiction for processing. Do not proceed to conduct repairs without permits. Some repairs, like changing a bulb in an exit sign, may not require a permit but most other work will require permits. Proceeding without obtaining repair permits may lead to a violation of the Code. Additionally, repairs being conducted under a permit will afford additional time to comply with a complete Building Safety Inspection report.

Completing the reports concisely is vital to the overall understanding of the conditions of the building and successful completion of the Building Safety Inspection process. The approved report forms provided herein shall be used. Proprietary forms will not be accepted. Such approved forms are to be considered supplemental to and in addition to a detailed written report. Sufficient photos shall be included to adequately convey typical conditions observed, particularly where defects are found. Where provided, photos shall be in color and with sufficient resolution to detail the conditions being shown. Building Safety Inspection reports may be audited, and the subject building may be inspected at the discretion of the Building Official. The Building Official reserves the right to rescind or revoke an approved Building Safety Inspection report.

The **Code in Effect** at the time of the original construction is the baseline for the Building Safety Inspections. Subsequent improvements to the original building should be inspected based on the Code at the time of permitting. It is not the intent of the Building Safety Inspection that buildings must be brought into compliance with current codes.

STRUCTURAL SAFETY INSPECTION REPORT FORM

Inspection Firm or Individual Name: _____

Address: _____

Telephone Number: _____

Inspection Commenced Date: _____ Inspection Completed Date: _____

☐ No Repairs Required ☐ Repairs are required as outlined in the attached inspection report

Licensed Design Professional: ☐ Engineer ☐ Architect

Name: _____

License Number: _____

Threshold Building - Certified Special Inspector: ☐ Yes ☐ No

I am qualified to practice in the discipline in which I am hereby signing,

Signature: _____ Date: _____

Seal

This report has been based upon the minimum inspection guidelines for building safety inspection as listed in the Broward County Board of Rules and Appeals' Policy #05-05. To the best of my knowledge and ability, this report represents an accurate appraisal of the present condition of the structure, based upon careful evaluation of observed conditions, to the extent reasonably possible.

1. DESCRIPTION OF STRUCTURE	
a. Name on Title:	
b. Street Address:	
c. Legal Description:	
d. Owner's Name:	
e. Owner's Mailing Address:	
f. Folio Number of Property on which Building is Located:	
g. Building Code Occupancy Classification:	
h. Present Use:	
i. General Description:	
j. Type of Construction: Square Footage:	Number of Stories:
k. Is this a Threshold Building per F.S. 553.71: ☐ Yes ☐ No	
l. Special Features:	

m. Describe any additions to original structure:

n. Additional Comments:

2. PRESENT CONDITION OF STRUCTURE

a. General alignment (Note: good, fair, poor, explain if significant):

1. Bulging: ☐ Good ☐ Fair ☐ Poor Significant (explain):

2. Settlement: ☐ Good ☐ Fair ☐ Poor Significant (explain):

3. Deflections: ☐ Good ☐ Fair ☐ Poor Significant (explain):

4. Expansion: ☐ Good ☐ Fair ☐ Poor Significant (explain):

5. Contraction: ☐ Good ☐ Fair ☐ Poor Significant (explain):

b. Portion showing distress (note, beams, columns, structural walls, floor, roofs, other):

c. Surface conditions – describe general conditions of finishes, noting cracking, spalling, peeling, signs of moisture penetration and stains:

d. Cracks – note location in significant members. Identify crack size as HAIRLINE if barely discernible; FINE if less than 1 mm in width; MEDIUM if between 1- and 2-mm width; WIDE if over 2 mm:

e. General extent of deterioration – cracking or spalling of concrete or masonry, oxidation of metals; rot or borer attack in wood:

f. Note previous patching or repairs:

g. Nature of present loading indicate residential, commercial, other estimate magnitude:

3. INSPECTIONS

a. Date of notice of required inspection:

b. Date(s) of actual inspection:

c. Name and qualifications of individual preparing report:

d. Description of laboratory or other formal testing, if required, rather than manual or visual procedures:

e. Structural repairs:

1. ☐ None required ☐ Required (describe):

f. Has the property record been researched for any current code violations or unsafe structure cases? ☐ Yes ☐ No
Explanation/comments:

4. SUPPORTING DATA ATTACHED

a. ☐ Sheets of written data

b. ☐ Photographs

c. ☐ Drawings or sketches

d. ☐ Test reports

5. FOUNDATION

a. Describe building foundation:

b. Is wood in contact or near soil? ☐ Yes ☐ No

c. Signs of differential Settlement? ☐ Yes ☐ No

d. Describe any cracks or separation in the walls, columns, or beams that signal differential settlement:

e. Is water draining away from the foundation? ☐ Yes ☐ No

f. Is there additional sub-soil investigation required? ☐ Yes ☐ No

1. If yes, explain:

6. MASONRY BEARING WALL - Indicate good, fair, poor on appropriate lines			
a. Concrete masonry units:	☐ Good	☐ Fair	☐ Poor
b. Clay tile or terra cotta units:	☐ Good	☐ Fair	☐ Poor
c. Reinforced concrete tie columns:	☐ Good	☐ Fair	☐ Poor
d. Reinforced concrete tie beams:	☐ Good	☐ Fair	☐ Poor
e. Lintel:	☐ Good	☐ Fair	☐ Poor
f. Other type bond beams:	☐ Good	☐ Fair	☐ Poor
g. Masonry finishes - **Exterior**:			
1. Stucco:	☐ Good	☐ Fair	☐ Poor
2. Veneer:	☐ Good	☐ Fair	☐ Poor
3. Paint only:	☐ Good	☐ Fair	☐ Poor
4. Other:	☐ Good	☐ Fair	☐ Poor
a. Explain:			
h. Masonry finishes – **Interior**:			
1. Vapor barrier:	☐ Good	☐ Fair	☐ Poor
2. Furring and plaster:	☐ Good	☐ Fair	☐ Poor
3. Paneling:	☐ Good	☐ Fair	☐ Poor
4. Paint only:	☐ Good	☐ Fair	☐ Poor
5. Other:	☐ Good	☐ Fair	☐ Poor
a. Explain:			
i. Cracks – Note beams, columns, or others, including locations (description):			

j. Spalling - in beams, columns, or others, including locations (description):

k. Rebar corrosion-check appropriate line:

1. ☐ None visible
2. ☐ Minor-patching will suffice
3. ☐ Significant - but patching will suffice
4. ☐ Significant - structural repairs required
   a. Describe:

l. Were samples chipped out for examination in spalled areas?

1. ☐ No
2. ☐ Yes – describe color, texture, aggregate, general quality:

7. FLOOR AND ROOF SYSTEM

a. **Roof:**

1. Describe (flat, slope, type roofing, type roof deck, condition):

2. Note water tanks, cooling towers, air conditioning equipment, signs, other heavy equipment, and condition of support:

3. Note types of drains, scuppers, and condition:
4. Describe parapet construction and current condition:
5. Describe mansard construction and current condition:
6. Describe roofing membrane/covering and current condition:
7. Describe any roof framing member with obvious overloading, overstress, deterioration, or excessive deflection:
8. Note any expansion joint and condition:
b. **Floor system(s):**
1. Describe (type of system framing, material, spans, condition):

2. Balconies - indicate location, framing system, material, and condition:

3. Stairs and escalators - indicate location, framing system, material, and condition:

4. Ramps - indicate location, framing system, material, and condition:

5. Guardrails – indicate type, location, material, and condition:

c. Inspection – note exposed areas available for inspection, and where it was found necessary to open ceilings, etc. for inspection of typical framing members:

8. STEEL FRAMING SYSTEM

a. Full description of system:

b. Exposed Steel- describe condition of paint and degree of corrosion:

c. Steel connections – describe type and condition:

d. Concrete or other fireproofing – describe any cracking or spalling and note where any covering was removed for inspection:

e. Identify any steel framing member with obvious overloading, overstress, deterioration, or excessive deflection (provide location(s)):

f. Elevator sheave beams, connections, and machine floor beams – note condition:

9. CONCRETE FRAMING SYSTEM

a. Full description of structural system:

b. Cracking:

1. ☐ Significant ☐ Not Significant

2. Description of members affected, location, and type of cracking:

c. General condition:

d. Rebar corrosion – check appropriate line:

1. ☐ None visible
2. ☐ Location and description of members affected and type cracking
3. ☐ Significant but patching will suffice
4. ☐ Significant – structural repairs required (describe):

e. Were samples chipped out for examination in spalled areas?

1. ☐ No
2. ☐ Yes, describe color, texture, aggregate, general quality:

f. Identify any concrete framing member with obvious overloading, overstress, deterioration, or excessive deflection (provide location(s)):

10. WINDOWS, STOREFRONTS, CURTAINWALLS, AND EXTERIOR DOORS

a. Windows, Storefronts, and Curtainwalls:

1. Type (Wood, steel, aluminum, jalousie, single hung, double hung, casement, awning, pivoted, fixed, other):

2. Anchorage- type and condition of fasteners and latches:

3. Sealant – type of condition of perimeter sealant and at mullions:

4. Interiors seals – type and condition at operable vents:

5. General condition – describe any repairs needed:

b. Structural Glazing on the exterior envelope of Threshold Building: ☐ Yes ☐ No

1. Previous inspection date:
2. Description of Curtainwall Structural Glazing and adhesive sealant:
3. Describe condition of system:

c. Exterior Doors:

1. Type (wood, steel, aluminum, sliding glass door, other):
2. Anchorage type and condition of fasteners and latches:
3. Sealant type and condition of sealant:
4. General condition:
5. Describe and repairs needed:

11. WOOD FRAMING

a. Type – fully describe if mill construction, light construction, major spans, trusses:

b. Indicate condition of the following:

1. Walls:

2. Floors:

3. Roof member, roof trusses:

c. Note metal fitting i.e., angles, plates, bolts, split pintles, other, and note condition:

d. Joints – note if well fitted and still closed:

e. Drainage – note accumulations of moisture:

f. Ventilation – note any concealed spaces not ventilated:

g. Note any concealed spaces opened for inspection:

h. Identify any wood framing member with obvious overloading, overstress, deterioration, or excessive deflection:

12. BUILDING FAÇADE INSPECTION (Threshold Building)

a. Identify and describe the exterior walls and appurtenances on all sides of the building (cladding type, corbels, precast appliques, etc.):

b. Identify attachment type of each appurtenance type (Mechanically attached or adhered):

c. Indicate the condition of each appurtenance (Distress, settlement, splitting, bulging, cracking, loosening of metal anchors and supports, water entry, movement of lintel or shelf angles, or other defects:

13. SPECIAL OR UNUSUAL FEATURES IN THE BUILDING

a. Identify and describe any special or unusual features (i.e., cable suspended structures, tensile fabric roof, large sculptures, chimney, porte-cochere, retaining walls, seawalls, etc.):

b. Indicate condition of special feature, its supports, and connections:

ELECTRICAL SAFETY INSPECTION REPORT FORM

Inspection Firm or Individual Name: _____

Address: _____

Telephone Number: _____

Inspection Commenced Date: _____ Inspection Completed Date: _____

☐ No Repairs Required ☐ Repairs are required as outlined in the attached inspection report

Licensed Design Professional: ☐ Engineer ☐ Architect

Name: _____

License Number: _____

P.E. Specialized in Electrical Design: ☐ Yes ☐ No

Provide resume of qualifications upon request.

I am qualified to practice in the discipline in which I am hereby signing,

Signature: _____ Date: _____

Seal

This report has been based upon the minimum inspection guidelines for building safety inspection as listed in the Broward County Board of Rules and Appeals' Policy #05-05. To the best of my knowledge and ability, this report represents an accurate appraisal of the present condition of the structure, based upon careful evaluation of observed conditions, to the extent reasonably possible.

1. DESCRIPTION OF STRUCTURE		
a. Name on Title:		
b. Street Address:		
c. Legal Description:		
d. Owner's Name:		
e. Owner's Mailing Address:		
f. Folio Number of Property on which Building is Located:		
g. Building Code Occupancy Classification:		
h. Present Use:		
i. General Description, Type of Construction:	Square Footage:	Number of Stories:
j. Is this a Threshold Building per F.S. 553.71: ☐ Yes ☐ No		
k. Special Features:		

l. Additional Comments:

2. INSPECTIONS

a. Date of notice of required inspection:

b. Date(s) of actual inspection:

c. Name and qualifications of individual preparing report:

d. Are any electrical repairs required:

1. ☐ No - none Required:
2. ☐ Yes - required (Describe nature of repairs):

*** **NOTE:** *Provide photographs as necessary to reflect relevant conditions and index appropriately* ***

3. ELECTRIC SERVICE

a. Size: Voltage ( ); Amperage ( );

b. Main Service Protection (amps): ☐ Fuse ☐ Breaker

c. Service Rating Amperage (amps)

d. Phase: ☐ Three Phase ☐ Single Phase

e. Condition: ☐ Good ☐ Needs Repairs

Describe nature of repairs:

4. SERVICE EQUIPMENT

a. Clearances: ☐ Good ☐ Requires Repair

Describe nature of repairs:

5. ELECTRIC ROOMS

a. Clearances: ☐ Good ☐ Requires Repair

Describe nature of repairs:

6. GUTTERS

a. Location: ☐ Good ☐ Requires Repair

Describe nature of repairs:

b. Taps and box fill: ☐ Good ☐ Requires Repair

Describe nature of repairs:

7. ELECTRICAL PANELS

a. Panel # ( ) ☐ Good ☐ Needs Repairs

b. Panel # ( ) ☐ Good ☐ Needs Repairs

c. Panel # ( ) ☐ Good ☐ Needs Repairs

d. Panel # ( ) ☐ Good ☐ Needs Repairs

e. Panel # ( ) ☐ Good ☐ Needs Repairs

Describe nature of repairs:

8. BRANCH CIRCUITS

a. Identified: ☐ Yes ☐ Must be identified

b. Conductors: ☐ Good ☐ Deteriorated ☐ Must be replaced

Describe nature of repairs:

9. GROUNDING OF SERVICE

☐ Good ☐ Repairs Required

Comments:

10. GROUNDING OF EQUIPMENT

☐ Good ☐ Repairs Required

Comments:

11. SERVICE CONDUITS/RACEWAYS

☐ Good ☐ Repairs Required

Comments:

12. SERVICE CONDUCTOR AND CABELS

☐ Good ☐ Repairs Required

Comments:

13. Effective July 1st, 2023. GENERAL CONDUIT/RACEWAYS

☐ Good ☐ Repairs Required

Comments:

14. FEEDER CONDUCTORS

☐ Good ☐ Repairs Required

Comments:

15. BUSWAYS

a. Location: ☐ Good ☐ Requires Repair
Describe nature of repairs:

16. Effective July 1st, 2023.
THERMOGRAPHY INSPECTION RESULTS *(add sheets as required and pictures if needed).*

Comments:

17. OTHER CONDUCTORS

☐ Good ☐ Repairs Required

Comments:

18. EMERGENCY LIGHTING

☐ Good ☐ Repairs Required

Comments:

19. BUILDING EGRESS ILLUMINATION

☐ Good ☐ Repairs Required

Comments:

20. FIRE ALARM SYSTEM

☐ Good ☐ Repairs Required

Comments:

21. SMOKE DETECTORS

☐ Good ☐ Repairs Required

Comments:

22. EXIT LIGHTS

☐ Good ☐ Repairs Required

Comments:

23. EMERGENCY GENERATOR

☐ Good ☐ Repairs Required

Comments:

24. WIRING & CONDUIT AT ALL PARKING LOTS AND GARAGES

☐ Good ☐ Repairs Required

Comments:

25. ALL PARKING LOT AND GARAGE LIGHTING

☐ Good ☐ Repairs Required

Comments:

26. SWIMMING POOL WIRING

☐ Good ☐ Repairs Required

Comments:

27. WIRING TO MECHANICAL EQUIPMENT

☐ Good ☐ Repairs Required

Comments:

28. ADDITIONAL COMMENTS

EXHIBIT #4

Infrared Thermography Inspection

For electrical systems operating at 400 amperes or greater, an infrared thermography inspection with a written report of the following electrical equipment must be provided as applicable or as otherwise indicated below: busways, switchgear, panelboards (except in dwelling unit load centers), disconnects, VFDS, starters, control panels, timers, meter centers, gutters junction boxes, automatic/manual transfer switches, exhaust fans and transformers. The infrared inspection of electrical equipment shall be performed by a Level-II or higher certified infrared thermographer who is qualified and trained to recognize and document thermal anomalies in electrical systems and possesses over 7 years of experience inspecting electrical systems associated with commercial buildings.