



CITY OF NORTH MIAMI BEACH

GENERAL CONSIDERATIONS

SCOPE OF STRUCTURAL INSPECTION

Fundamental purpose of the required inspection and report is to confirm in reasonable fashion that the building or structure under consideration is safe for continued use under 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.

In general, unless there is obvious overloading, or significant deterioration of important structure elements, there is little need to verify the original design. It is obvious that this has “time” tested if still offering satisfactory performance. Rather, it is of importance that the effects of time with respect to deterioration 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 structure members should be examined to permit reasonable conclusions to be drawn.

Visual Examination will, in most cases, be considered adequate when executed systematically. 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 assurance 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 movements due to expansive soils actually may occur, it is infrequently in this area. Older buildings on spread footings may exhibit continual, even recent settlements if founded on deep unconsolidated fine grained or cohesive soils or from subterraneous losses or movements from several possible causes.

With very little qualification, such as rather rare chemically reactive conditions deterioration of building materials can only occur in the presence of moisture, largely 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 buildings, 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. Type of repair, however, will depend on importance of 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 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 describe the type and manner of the inspection, noting problem areas and recommended repairs, if required to maintain structural integrity.

EVALUATION: Each report shall include a statement to the effect that the building is structurally safe, unsafe, safe with qualifications, or has been made or restrictive interpretation of such statements. 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 construed directly or indirectly as a guarantee for any portion of the structure. To the best of my knowledge and ability, this report represents and 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, generally incapable of accepting such movements will crack. Such cracks are most likely to occur at corners, 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, continuous 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 deteriorated, or that the tiles may have become loose. Large 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 building recertification 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 counter flashing will also signify possible problems. Wind blown gravel, if excessive, and the 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 constructed 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. Usually, if rebar loss is such that the remaining steel area is still about 0.0075% of the concrete area, structural repair will not be necessary. Cosmetic type repair involving cleaning, and patching 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 or repair will be dependent upon the results of such investigation.

Precast members may present similar deterioration conditions. End support conditions may 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, of course, sensitive to corrosion. Most critical locations will be web member welds, especially near supports, where shear stresses are high 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 normal 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 foam-board may result from sustained leakage. Anchorage of the supporting bulb tees against uplift may also be of importance, with significant deterioration.

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.

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.

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

CONCRETE FRAMING SYSTEMS

Concrete deterioration will, in most cases similarly be related to rebar corrosion possibly abetted by the presence of salt water 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.

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. The original gradation of aggregate can be seen through a magnifying glass. Depending upon the structural importance of the specific location, this type of examination may obviate the need for further testing if a value of 200 psi to 2500 psi is sufficient for required strengths, in the event that visual inspection indicates good quality for the factors mentioned.

WINDOWS

Window condition is of considerable importance with respect to two considerations. Continued leakage may have resulted in other adjacent damage and deteriorating anchorage may result in loss of the entire unit in the event of severe windstorms 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 (section) pressures, most importantly in high 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 hind pressure, will indicate the possibility of further difficulty.

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.

SCOPE OF ELECTRICAL INSPECTION

The purpose of the required inspection and report is to confirm with reasonable fashion that the building or structure under consideration is safe for continued use under present occupancy. As mentioned before, this is a recommendation 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 must 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. There should also exist proper grounding for equipment used in the building, such as an emergency generator, or elevator motor.

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 must all be in good working condition.

December 5, 2001

40 YEAR RECERTIFICATION OF BUILDINGS AND COMPONENTS

(a) For the purpose of this Subsection, RECERTIFICATION shall be construed to mean the requirement for specific inspection of existing buildings and structures and furnishing the Building Official with a written report of such inspection as prescribed herein.

(1) Inspection procedures shall conform, in general, with the “Recommended Minimum Inspection Procedural Guidelines for Building Recertification,” as issued by the Building Official.

(2) Such inspection shall be for the purpose of determining the general structural condition of the building or structure to the extent reasonably possible, and the general condition of its electrical systems. For purposes of this section, structural shall mean 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 or designed live load and the removal of which part, material or assembly could cause, or be expected to cause, all or any portion to collapse or to fail. Electrical wiring, apparatus and equipment, and installations for light, heat or power and low voltage systems as are required and/or regulated in the Electrical Code, now existing or hereinafter installed, shall be maintained in a safe condition and all devices and safeguards maintained in good working order.

(b) (1) All buildings, except single-family residences, duplexes and minor structures as defined herein, shall be recertified as required where such buildings or structures have been in existence for forty (40) years or longer, as determined by the Building Official, who shall at such time issue a Notice of Required Inspection to the building owner.

(2) Subsequent recertification shall be required at ten (10) year intervals.

(3) In the event a building is determined to be structurally and electrically safe under the conditions set forth herein, and such building or structure is less than forty (40) years of age, recertification shall not be required for a minimum of ten (10) years from that time, or age forty (40), whichever is the longer period of time.

(c) Minor buildings or structures shall, for the purpose of this subsection, be buildings or structures in any occupancy group having an occupant load of ten (10) or less, as determined by the Building Code and having a gross area of 2,000 sq. ft. or less.

(d) (1) In accordance with the requirements of this section, the owner of such building or structures shall furnish, or cause to be furnished, within ninety (90) days of Notice of Required Inspection, a written report to the Building Official, prepared by a Professional Engineer or Architect registered in the State of Florida, 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 “Recommended Minimum Procedural Guidelines for Building Recertification” issued by the Building Official.

(2) Such written report shall bear the impressed seal and signature of the responsible Engineer or Architect who has performed the inspection.

(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.

(4) Such report shall indicate the manner and type of inspection forming the basis for the report and description of any matters identified as requiring remedial action.

(5) In the event that repairs or modifications are found to be necessary resulting from the recertification inspection, the owner shall have a total of 150 days from the date of Notice of Required Inspection in which to complete indicated repairs or modifications which shall be executed in conformance with all applicable Sections of the Building Code.

40 YEARS CERTIFICATION

MINIMUM INSPECTION PROCEDURAL GUIDELINES FOR BUILDING
STRUCTURE RECERTIFICATION

(To be completed by a Florida Architect or Engineer qualified
by training and experience in the structural field)

1. Description of Structure:

- a. Name of title _____
- b. Street address _____
- c. Legal description _____

- d. Owner's name _____
- e. Owner's mailing address _____
- f. Building Official Folio Number _____
- g. Building Code Occupancy Classification _____
- h. Present use _____
- i. General description, type of construction, size, number of stories, and special features.

- j. Additions to original structure _____

2. Present Condition of Structure:

- a. General alignment (note good, fair, poor, explain if significant)
 - 1. Bulging _____
 - 2. Settlement _____
 - 3. Defections _____
 - 4. Expansion _____
 - 5. Contraction _____

- b. Portions showing distress (note, beams, columns, structural walls, floors, 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 discernable; FINE if less than 1 mm in width, MEDIUM in between 1 and 2 mm in 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. Previous patching or repairs _____
- g. Nature of present loading – indicate residential, commercial, other estimate magnitude. _____

3. Inspections:

- a. Date of notice required inspection: _____
- b. Date(s) of actual inspection: _____
- c. Name and qualification of individual submitting inspection report: _____

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

- e. Structural repair – note appropriate line:
 - 1. None required: _____
 - 2. Required (describe and indicate acceptance):

4. Supporting data:

- a. _____ Sheets written data
- b. _____ Photographs
- c. _____ Drawings or sketches

5. Masonry Bearing Walls – indicate good, fair, poor on appropriate lines:

- a. Concrete masonry units _____
- b. Clay tile or terra cotta units _____
- c. Reinforced concrete tie columns _____
- d. Reinforced concrete tie beams _____
- e. Lintels _____
- f. Other type bond beams _____
- g. Masonry finishes – exterior:
 - 1. Strucco _____
 - 2. Veneer _____
 - 3. Paint only _____
 - 4. Other (describe) _____
- h. Masonry finishes – interior:
 - 1. Vapor barrier _____
 - 2. Furring and plaster _____
 - 3. Paneling _____
 - 4. Paint only _____
 - 5. Other (describe) _____
- i. Cracks:
 - 1. Location – note beams, columns, other _____
 - 2. Description _____

- j. Spalling:
 - 1. Location – note beams, columns, other _____
 - 2. 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
(describe) _____

- l. Samples chipped out for examination in spall areas:
1. No _____
 2. Yes -- describe color texture, aggregate, general quality _____

6. Floor and Roof Systems:

- 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 conditions of supports:

 3. Note types of drains and scuppers and condition:

- b. Floor system (s):
1. Describe (type of system framing, material, spans, 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.

7. Steel Framing Systems:

- a. Description _____

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

- c. Concrete or other fireproofing – note any cracking or spalling, and note where any covering was removed for inspection _____

- d. Elevator sheave beams & connections, and machine floor beams – note condition:

8. Concrete Framing Systems:

- a. Full description of structural system _____

- b. Cracking:
 - 1. Not significant _____
 - 2. Location and description of members affected and type cracking _____

- c. General conditions:

- 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. Samples chipped out in spall areas:
 - 1. No _____

2. Yes describe color, texture, aggregate, general quality:

9. Windows:

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

b. Anchorage – type & condition of fasteners and latches: _____

c. Sealants – type & condition of perimeter sealants & at mullions:

d. Interior seals – type & condition at operable vents: _____

e. General condition: _____

10. Wood Framing:

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

b. Note metal fitting i.e., angles, bolts, split pintles, pintles, other, and note conditions: _____

c. Joints – note if well fitted and still closed: _____

d. Drainage – note accumulations of moisture: _____

e. Ventilation – note any concealed spaces not ventilated: _____

f. Note any concealed spaces opened for inspection: _____

Scope Of Electrical Inspection For Re-certification Of 40
Year Old Structures As Defined In Miami-Dade County
Chapter 8

Chapter 8 Section 8-11. Existing buildings.

(a) 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 safeguard maintained in good working order.**

(b) This subsection shall not be construed as permitting the removal or non-maintenance of any existing devices or safeguards unless authorized by the Building Official.

(c) Certificate of inspection for boilers and pressure vessels; A Certificate of Inspection shall be requested from and issued by the Building Official. Certificate of Inspection shall be the authorization to operate such equipment for a limited period as set forth herein:

(1) A Certificate of Inspection for a high-pressure boiler shall be for a period of not more than 6 months.

(2) A Certificate of Inspection for a low-pressure boiler shall be for a period of not more than 12 months.

(3) A Certificate of Inspection for an unfired pressure vessel (operating at pressures in excess of 60 PSI and having a volume of more than 5 cubic feet) shall be for a period of not more than 12 months.

(4) A Certificate of Inspection may, at the discretion of the Building Official, be for a shorter period or such certificate may be rescinded and tests be ordered at any time when in the opinion of the Building Official, a condition exists making such retesting or reinspection desirable in the interest of safety.

(5) A Certificate of Inspection shall be posted in a conspicuous location to the operator. EXCEPTION: Boilers requiring inspections and certification by the State of Florida Fire Marshal's Office, Boiler Safety Program.

(f) Recertification of buildings and components:

(i) For the purpose of this Subsection, recertification shall be construed to mean the requirement for specific inspection of existing buildings and structures and furnishing the Building Official with a written report of such inspection as prescribed herein.

(1) Inspection procedures shall conform, in general, with the minimum inspection procedural guidelines as issued by the Board of Rules and Appeals.

(2) 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 or designed live load, and the general condition of its electrical systems pursuant to the Building Code.

(ii) (1) All buildings, except single-family residences, duplexes and minor structures as defined below, shall be recertified in the manner described below where such buildings or structures have been in existence for forty (40) years or longer, as determined by the Building Official, who shall at such time issue a Notice of Required Inspection to the building owner.

(2) Subsequent recertification shall be required at ten (10) years interval.

(3) In the event a building is determined to be structurally and electrically safe under the conditions set forth herein, and such building or structure is less than forty (40) years of age, recertification shall not be required for a minimum of ten (10) years from that time, or age forty (40), whichever is the longer period of time.

(iii) Minor buildings or structures shall, for the purpose of this subsection, be buildings or structures in any occupancy group having an occupant load of ten (10) or less, as determined by Table 1003.1 (FBC) Minimum Occupant Load of the Florida Building Code and having a gross area of 2,000 sq. ft. or less.

(iv) (1) The owner of a building or structure subject to re-certification shall furnish, or cause to be furnished, within ninety (90) days of Notice of Required Inspection, a written report to the Building Official, prepared by a Professional Engineer or Architect registered in the State of Florida, 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) Such written report shall bear the impressed seal and signature of the responsible Engineer or Architect who has performed the inspection.

(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.

(4) Such report shall indicate the manner and type of inspection forming the basis for the report and description of any matters identified as requiring remedial action.

(5) In the event that repairs or modifications are found to be necessary resulting from the re-certification inspection, the owner shall have a total of 150 days from the date of Notice of Required Inspection in which to complete indicated repairs

or modifications which shall be executed in conformance with all applicable Sections of the Building Code.

(v) When installed on threshold buildings, structural glazing systems, shall be inspected by the owner at 6 months 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.

The purpose of the required inspection and report is to confirm with reasonable fashion that the building or structure under consideration is safe for continued use under present occupancy. As mentioned before, this is a recommendation 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 must 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. There should also exist proper grounding for equipment used in the building, such as an emergency generator, or elevator motor.

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 must all be in good working condition.

Parking Lot & Alley Lighting

Must comply with the Miami-Dade Chapter 800 requirements.

MINIMUM INSPECTION PROCEDURAL GUIDELINES FOR BUILDING
ELECTRICAL RECERTIFICATION

INSPECTION COMMENCED INSPECTION MADE BY: _____
Date: _____ SIGNATURE _____
INSPECTION COMPLETED PRINT NAME: _____
Date _____ TITLE: _____
ADDRESS: _____

1. DESCRIPTION OF STRUCTURE:

- a. NAME OF TITLE
- b. STREET ADDRESS
- c. LEGAL DESCRIPTION
- d. OWNERS NAME
- e. OWNER'S MAILING ADDRESS
- f. FOLIO NUMBER OF BUILDING:
- g. BUILDING CODE OCCUPANCY CLASSIFICATION:
- h. PRESENT USE:
- i. GENERAL DESCRIPTION, TYPE OF CONSTRUCTION, SIZE,
 NUMBER OF STORIES, AND SPECIAL FEATURES.
 ALSO ADDITIONAL COMMENT.

GUIDELINES AND INFORMATION FOR RECERTIFICATION OF ELECTRICAL
SYSTEMS OF FORTY (40) YEARS STRUCTURES

1. ELECTRIC SERVICE:
 1. SIZE, AMPERAGE: (): FUSES (): BREAKER ()
 2. PHASE: 3Ø (): 1Ø ()
 3. CONDITION: GOOD() FAIR ()
NEEDS REPAIR ()
 4. COMMENTS:

2. METER AND ELECTRIC ROOMS:
 1. CLEARANCES: GOOD () FAIR ()
REQUIRES CORRECTION ()
 2. COMMENTS:

3. GUTTERS:
 1. LOCATION: GOOD ()
REQUIRES REPAIR ()

 2. _____ GOOD ()
REQUIRES REPAIR ()
 3. COMMENTS:

4. ELECTRICAL PANELS:

LOCATION	GOOD ():	NEEDS REPAIR ()
1. PANEL # ():		
2. PANEL # ():		
3. PANEL # ():		
4. PANEL # ():		
5. PANEL # ():		
6. COMMENTS:		

5. BRANCH CIRCUITS:

1. IDENTIFIED: YES():	MUST BE IDENTIFIED ()
2. CONDUCTORS: GOOD():	DETERIORATED ()
	MUST BE REPLACED ()
3. COMMENTS:	

6. GROUNDING OF SERVICE: GOOD();
REPAIRS REQUIRED()

COMMENTS:

7. GROUNDING OF EQUIPMENT: GOOD();
REPAIRS REQUIRED()

COMMENTS:

8. CONDUIT RACEWAYS: CONDITION: GOOD();
REPAIRS REQUIRED()

COMMENTS:

9. CONDUCTOR AND CABLES: CONDITION: GOOD();
REPAIRS REQUIRED()

COMMENTS:

10. TYPES OF WIRING METHODS; CONDITION:
- CONDUIT RACEWAYS; RIGID: GOOD ():
REPAIRS REQUIRED ()
- CONDUIT PVC: GOOD ():
REPAIRS REQUIRED ()
- NM CABLE: GOOD ():
REPAIRS REQUIRED ()
- BX CABLE: GOOD ():
REPAIRS REQUIRED ()
- COMMENTS
-
11. CONDUCTORS; CONDITION: GOOD():
REPAIRS REQUIRED()
- COMMENTS:
-
12. EMERGENCY LIGHTING: GOOD():
REPAIRS REQUIRED()
- COMMENTS:
-
13. BLDG. EGRESS ILLUMINATION: GOOD():
REPAIRS REQUIRED()
- COMMENTS:
-
14. FIRE ALARM SYSTEM: GOOD():
REPAIRS REQUIRED()
- COMMENTS:

10. TYPES OF WIRING METHODS: CONDITION:

CONDUITS RACEWAYS :RIGID: GOOD ():REPAIRS REQUIRED ()

CONDUIT PVC: GOOD ():REPAIRS REQUIRED ()

NM CABLE: GOOD ():REPAIRS REQUIRED ()

BX CABLE: GOOD ():REPAIRS REQUIRED ()

11. CONDUCTORS:CONDITION: GOOD ():REPAIRS REQUIRED ()

COMMENTS: _____

12. EMERGENCY LIGHTING: GOOD ():REPAIRS REQUIRED ()

COMMENTS: _____

13. BLDG.EGRESS ILLUMINATION: GOOD ():REPAIRS REQUIRED ()

COMMENTS: _____

14. FIRE ALARM SYSTEM: GOOD ():REPAIRS REQUIRED ()

COMMENTS: _____

15. SMOKE DETECTORS: GOOD(): REPAIRS REQUIRED()
 COMMENTS:
16. EXIT LIGHTS: GOOD(): REPAIRS REQUIRED()
 COMMENTS:
17. EMERGENCY GENERATOR: GOOD(): REPAIRS REQUIRED()
 COMMENTS:
18. WIRING IN OPEN OR UNDER COVER PARKING: GOOD(): REPAIRS REQUIRED()
GARAGE AREAS: GOOD(): ILLUMINATION()
 COMMENTS:
19. OPEN OR UNDERCOVER PARKING GARAGE AREAS: :GOOD(): REQUIRE ADDITIONAL LUMINATION()
AND EGRESS ILLUMINATION: :GOOD(): REQUIRE ADDITIONAL LUMINATION()
 COMMENTS:
20. SWIMMING POOL WIRING: GOOD(): REPAIRS REQUIRED()
 COMMENTS:

21. WIRING TO MECHANICAL EQUIPMENT:

GOOD():
REPAIRS REQUIRED()

COMMENTS:

22. GENERAL ADDITIONAL COMMENTS:

Miami-Dade County Code, Sec. 8C-3**Illumination for open parking lots, alleys and access thereto and parking and non-enclosed areas under or within buildings.****(a) Generally:**

- (1) This section applies to new construction and all existing buildings.
- (2) Open parking lots, alleys, and access thereto shall be illuminated as set forth below. For purposes of this paragraph, alley is defined as a narrow vehicular thoroughfare up to twenty-five (25) feet in width upon which service entrances or buildings abut and not generally used as a thoroughfare for general traffic; provided, however, alleys shall not include public rights-of-way.

(b) Groups A (Assembly), D (Day Care) and E (Educational) occupancies:

- (1) Open parking lots and access thereto shall be provided with a maintained minimum of 1 foot-candle on the parking surface from dusk until dawn; provided, however, the lighting level may be reduced by fifty (50) percent on non-business days and commencing thirty (30) minutes after the termination of business on each operating day. The uniformity ratio shall not exceed a twelve to one ratio (12:1) maximum to minimum foot-candles. This provision shall not apply to governmental facilities not generally open to the public, and shall apply to those governmental facilities that are generally open to the public only during the dusk-to-dawn hours such facilities are open.
- (2) Parking and non-enclosed areas under or within buildings at grade shall be provided with a maintained minimum of 1 foot-candle of light on the parking and walking surfaces from dusk until dawn and the ratio of maximum to minimum illumination in foot-candles shall not exceed twelve to one (12:1); provided, however, the lighting level may be reduced by fifty (50) percent on non-business days and thirty (30) minutes after the termination of business one each operating day. This provision shall not apply to governmental facilities not generally open to the public, and shall apply to those governmental facilities that are generally open to the public only during the dusk-to-dawn hours such facilities are open.
- (3) Alleys shall be provided with a maintained minimum of 1/3 foot-candle on the alley surface from dusk to dawn. The uniformity ratio shall not exceed a twelve to one (12:1) maximum to minimum foot-candles. This provision shall not apply to governmental facilities not generally open to the public, and shall apply to those governmental facilities that are generally open to the public only during the dusk-to-dawn hours such facilities are open.

(c) Groups F (Factory Industrial), H (Hazardous), I (Institutional), S (Storage) and R4 (Residential care/assisted living facilities) occupancies:

- (1) Open parking lots and access thereto shall be provided with a maintained minimum of 0.5 foot-candle on the parking surface from dusk until dawn; provided, however, the

lighting level may be reduced by fifty (50) percent on non-business days and commencing thirty (30) minutes after the termination of business on each operating day. The uniformity ratio shall not exceed a twelve to one ratio (12:1) maximum to minimum foot-candles.

- (2) Alleys shall be provided with a maintained minimum of 1/3 foot-candle on the alley surface from dusk to dawn. The uniformity ratio shall not exceed a twelve to one (12:1) maximum to minimum foot-candles. This provision shall not apply to governmental facilities not generally open to the public, and shall apply to those governmental facilities that are generally open to the public only during the dusk-to-dawn hours such facilities are open.
- (3) Parking and non-enclosed areas under or within buildings at grade shall be provided with a maintained minimum of 1 foot-candle of light on the parking and walking surfaces from dusk until dawn and the ratio of maximum to minimum illumination in foot-candles shall not exceed twelve to one (12:1) provided, however, the lighting level may be reduced by fifty (50) percent on non-business days and commencing thirty (30) minutes after the termination of business on each operating day. This provision shall not apply to governmental facilities not generally open to the public, and shall apply to those governmental facilities that are generally open to the public only during the dusk-to-dawn hours such facilities are open.
- (4) The area immediately outside of exterior doors shall have security illumination and shall be activated during the dark period of every day.

(d) Group B (Business) and M (Mercantile) occupancies:

- (1) Open parking lots and access thereto shall be provided with a maintained minimum of 1.0 foot-candle on the parking surface from dusk until dawn; provided, however, the lighting level may be reduced by fifty (50) percent on non-business days and commencing thirty (30) minutes after the termination of business on each operating day. The uniformity ratio shall not exceed a twelve to one ratio (12:1) maximum to minimum foot-candles.
- (2) Alleys shall be provided with a maintained minimum of 1/3 foot-candle on the alley surface from dusk to dawn. The uniformity ratio shall not exceed a twelve to one (12:1) maximum to minimum foot-candles. This provision shall not apply to governmental facilities not generally open to the public, and shall apply to those governmental facilities that are generally open to the public only during the dusk-to-dawn hours such facilities are open.
- (3) Parking and non-enclosed areas under, or within buildings shall be provided with a maintained minimum of 1 foot-candle of light on the walking and parking surfaces from dusk until dawn, and the ratio of maximum to minimum illumination in foot-candles shall not exceed twelve to one (12:1); provided, however, the lighting level may be reduced by fifty (50) percent on non-business days and commencing thirty (30) minutes

after the termination of business on each operating day. It is provided, however, that this provision shall not apply to governmental facilities not generally open to the public, and shall apply to those governmental facilities that are generally open to the public only during the dusk-to-dawn hours such facilities are open.

(4) The area immediately outside of exterior doors shall have security illumination and shall be activated during the dark period of every day.

(e) *Group R1 (Residential transient) and R2 (Residential multiple dwelling) occupancies:*

(1) Open parking lots and access thereto shall be provided with a maintained minimum of 1.0 foot-candle on the parking surface from dusk until dawn. The uniformity ratio shall not exceed a twelve to one ratio (12:1) maximum to minimum foot-candles. Alleys shall be provided with a maintained minimum of one-third (1/3) foot-candle on the alley surface from dusk to dawn.

(2) Parking and non-enclosed areas under, or within buildings shall be provided with a maintained minimum of 1.0 foot-candle of light on the walking and parking surfaces from dusk until dawn, and the ratio of maximum to minimum illumination in foot-candles shall not exceed twelve to one (12:1).

(Ord. No. 01-196, § 1, 11-20-01)