

Bridge Factors Factual Report Attachment 58 – Florida Administrative Code 61G15-18.011

Miami, FL

HWY18MH009

(3 pages)

61G15-18.011 Definitions.

As used in Chapter 471, F.S., and in these rules where the context will permit the following terms have the following meanings:

(1) "Responsible Charge" shall mean that degree of control an engineer is required to maintain over engineering decisions made personally or by others over which the engineer exercises supervisory direction and control authority. The engineer in responsible charge is the Engineer of Record as defined in subsection 61G15-30.002(1), F.A.C.

(a) The degree of control necessary for the Engineer of Record shall be such that the engineer:

1. Personally makes engineering decisions or reviews and approves proposed decisions prior to their implementation, including the consideration of alternatives, whenever engineering decisions which could affect the health, safety and welfare of the public are made. In making said engineering decisions, the engineer shall be physically present or, if not physically present, be available in a reasonable period of time, through the use of electronic communication devices, such as electronic mail, videoconferencing, teleconferencing, computer networking, or via facsimile transmission.

2. Judges the validity and applicability of recommendations prior to their incorporation into the work, including the qualifications of those making the recommendations.

3. Approves the inclusion of standard engineering design details into the engineering work. Standard engineering design details include details mandated or directed to be contained in engineering documents by governmental agencies (such as the Florida Department of Transportation); and details contained in engineering design manuals and catalogues that are generally accepted as authoritative in the engineering profession. In order to approve the inclusion of such details the Engineer of Record must conduct such reasonable analysis of the content of the standard detail(s) as is necessary in the sound professional judgment of the Engineer of Record to be assured that the inclusion of such detail(s) into the engineering work is acceptable engineering practice.

(b) Engineering decisions which must be made by and are the responsibility of the Engineer of Record are those decisions concerning permanent or temporary work which could create a danger to the health, safety, and welfare of the public, such as, but not limited to, the following:

1. The selection of engineering alternatives to be investigated and the comparison of alternatives for engineering works.

2. The selection or development of design standards or methods, and materials to be used.

3. The selection or development of techniques or methods of testing to be used in evaluating materials or completed works, either new or existing.

4. The development and control of operating and maintenance procedures.

(c) As a test to evaluate whether an engineer is the Engineer of Record, the following shall be considered:

1. The engineer shall be capable of answering questions relevant to the engineering decisions made during the engineer's work on the project, in sufficient detail as to leave little doubt as to the engineer's proficiency for the work performed and involvement in said work. It is not necessary to defend decisions as in an adversary situation, but only to demonstrate that the engineer in responsible charge made them and possessed sufficient knowledge of the project to make them. Examples of questions to be answered by the engineer could relate to criteria for design, applicable codes and standards, methods of analysis, selection of materials and systems, economics of alternate solutions, and environmental considerations. The individuals should be able to clearly define the span and degree of control and how it was exercised and to demonstrate that the engineer was answerable within said span and degree of control necessary for the engineering work done.

2. The engineer shall be completely in charge of, and satisfied with, the engineering aspects of the project.

3. The engineer shall have the ability to review design work at any time during the development of the project and shall be available to exercise judgment in reviewing these documents.

4. The engineer shall have personal knowledge of the technical abilities of the technical personnel doing the work and be satisfied that these capabilities are sufficient for the performance of the work.

(d) The term "responsible charge" relates to engineering decisions within the purview of the Professional Engineers Act and does not refer to management control in a hierarchy of professional engineers except as each of the individuals in the hierarchy exercises independent engineering judgement and thus responsible charge. It does not refer to administrative and personnel management functions. While an engineer may also have such duties in this position, it should not enhance or decrease one's status of being in responsible charge of the work. The phrase does not refer to the concept of financial liability.

(2) "Engineering Design" shall mean that the process of devising a system, component, or process to meet desired needs. It is a decision-making process (often iterative), in which the basic sciences, mathematics, and engineering sciences are applied to convert resources optimally to meet a stated objective. Among the fundamental elements of the design process are the establishment of

objectives and criteria, synthesis, analysis, construction, testing and evaluation. Central to the process are the essential and complementary roles of synthesis and analysis. This definition is intended to be interpreted in its broadest sense. In particular the words "system, component, or process" and "convert resources optimally" operate to indicate that sociological, economic, aesthetic, legal, ethical, etc., considerations can be included.

(3) The term "evaluation of engineering works and systems" as used in the definition in the practice of engineering set forth in Section 471.005(7), F.S., includes but is not limited to services provided by testing laboratories involving the following:

(a) The planning and implementation of any investigation or testing program for the purpose of developing design criteria either by an engineering testing laboratory or other professional engineers.

(b) The planning or implementation of any investigation, inspection or testing program for the purpose of determining the causes of failures.

(c) The preparation of any report documenting soils or other construction materials test data.

(d) The preparation of any report offering any engineering evaluation, advice or test results, whenever such reports go beyond the tabulation of test data. Reports which document soils or other construction materials test data will be considered as engineering reports.

(e) Services performed by any entity or provided by a testing laboratory for any entity subject to regulation by a state or federal regulatory agency which enforces standards as to testing shall be exempt from this rule except where the services otherwise would require the participation of a professional engineer.

(4) "Certification" shall mean a statement signed and sealed by a professional engineer representing that the engineering services addressed therein, as defined in Section 471.005(7), F.S., have been performed by the professional engineer, and based upon the professional engineer's knowledge, information and belief, and in accordance with commonly accepted procedures consistent with applicable standards of practice, and is not a guaranty or warranty, either expressed or implied.

(5) The term "principal officer(s) of the business organization" as used in Section 471.023(1), F.S., means the (a) President, Vice President, Secretary or Treasurer of the Corporation, or Limited Liability Company (LLC); or (b) any other officer who has management responsibilities in the corporation or LLC, as documented by the corporate charter or bylaws so long as such documentation provides that such officer is empowered to bind the corporation or LLC in all of its activities which fall within the definition of the practice of engineering as that term is defined in Section 471.005(7), F.S.

(6) The term "Florida Building Code" shall mean the Florida Building Code, 6th Edition, (2017), and which is incorporated herein by reference. The material incorporated is copyrighted material that is available for public inspection and examination, but may not be copied, at the Department of State, Administrative Code and Register Section, Room 701, The Capitol, Tallahassee, Florida 32399-0250, and at the Board office, 2639 North Monroe Street, Suite B-112, Tallahassee, FL 32303.

(7) The term "Florida Fire Prevention Code" shall mean the Florida Fire Prevention Code, 5th Edition, (2014), and which is incorporated herein by reference. The material incorporated is copyrighted material that is available for public inspection and examination, but may not be copied, at the Department of State, Administrative Code and Register Section, Room 701, The Capitol, Tallahassee, Florida 32399-0250, and at the Board office, 2639 North Monroe Street, Suite B-112, Tallahassee, FL 32303.

Rulemaking Authority 471.008, 471.013(1)(a)1., 2. FS. Law Implemented 471.003(2)(f), 471.005(7), 471.005(6), 471.013(1)(a)1., 2., 471.023(1), 471.025(3), 471.033(1)(j) FS. History–New 6-23-80, Amended 12-19-82, 11-22-83, Formerly 21H-18.11, Amended 1-16-91, 4-4-93, Formerly 21H-18.011, Amended 12-22-99, 4-19-01, 10-16-02, 9-15-04, 6-5-08, 6-2-09, 2-2-12, 6-12-16, 2-22-17, 3-4-18.