

Clarification of Functional Program Requirements in the 2014 FGI *Guidelines*

Ken Cates, CHC, SASHE, and Heather Livingston

During the revision cycle that resulted in the 2014 Facility Guidelines Institute *Guidelines for Design and Construction of Hospitals and Outpatient Facilities*, there was much debate about whether the 2010 *Guidelines* language on the functional program in Chapter 1.2, “Planning, Design, Construction, and Commissioning,” outlined a minimum requirement or a best practice. As well, the Health Guidelines Revision Committee (HGRC), the body responsible for updating *Guidelines* content, determined that some language related to the functional program in other parts of the 2010 *Guidelines* needed to be enhanced and made more enforceable by authorities having jurisdiction. In response to these issues, the 2014 HGRC Focus Group on Planning, Design, and Construction undertook a comprehensive review of how the functional program is addressed in the *Guidelines*. Their efforts led to revised, streamlined treatment of the functional program throughout the 2014 edition.

What is a functional program?

Simply stated, a functional program is an initial planning document in which the purpose of a construction project, along with key project requirements, is recorded. A well-developed and thought-out functional program is a written record of the results of the functional programming process that carries forward the owner’s intentions throughout the life cycle of a project, including serving as a guide to how the completed facility is expected to be used.

As outlined in the 2014 Hospital/Outpatient *Guidelines*, a functional program must be created for new construction, major renovations, and projects that change the functional use of any health care facility space. The size and complexity of the project will determine the level of effort needed to develop the functional program. A functional program is not intended to determine the design itself, but rather is a resource intended to ensure that all the owner’s fundamental needs for a facility project are identified so they can be addressed in the facility design and met by the completed project.

The functional program, as delineated in the 2014 *Guidelines*, is to be commissioned by the owner, who will collaborate with the project team (including key stakeholders) to identify the basis for the project parameters. The planning decisions outlined in the functional program will determine which sections of the *Guidelines* apply to a given health care construction project. Developing the information required in a functional program will help the project team and owner reach consensus on key elements of project scope, and the resulting document will serve as a record and guide to their intent throughout the design and construction process.

How does a functional program work?

Before the functional program is created, the owner's conceptual facility needs are identified, typically as part of an organization's strategic and facility master planning efforts. Once these needs have been evaluated, organized into specific facility projects, and coordinated with available funding, the functional programming process for a specific project can commence.

During the initial planning phase of a construction project, the health care facility owner (termed the governing body in the 2014 Hospital/Outpatient *Guidelines*) must undertake a high-level, critical thinking process to identify the overall project goals, facility functions, and basic design needs the project is intended to support. The decisions made during this process are recorded in the functional program. This information is then provided to the project architect/engineer and the authority having jurisdiction (AHJ) to assure the basis of the project is understood. Often, members of the project team who represent the owner and the designer work together to develop the functional program, but it is critical that the owner bear the responsibility for this effort.

Although the functional program is completed during the project planning phase, it should be updated, as needed, throughout the design and construction phases. During the design phase, the project team uses and expands the functional program information to develop the details of the project design, allowing them to base it on a full understanding of the owner's project needs. During the construction phase, the functional program information is used to develop detailed operational plans and is updated to include any additions or changes that occur during this phase of the project.

What's in a functional program?

As stated in Section 1.2-2.2 (Functional Program Content) of the 2014 *Guidelines*, key elements to be included in a functional program are:

- Purpose of the project
- Project type and size
 - Facility type as defined by the *Guidelines*
 - Square footage and number of stories
- Construction type/occupancy and building systems
 - For new construction, descriptions of the planned construction type and occupancy
 - For renovation, descriptions of the existing and planned construction types and of the existing engineering systems that service the facility
- Project components and scope
 - Departments affected by the project
 - Services required for the completed project to function as intended
- Indirect support functions (i.e., increased or decreased demands, workloads, staffing requirements, etc., that will be imposed on support functions related to the construction project)
- Operational requirements, such as:
 - Projected operational use and demand loading for affected departments/project components
 - Operational circulation patterns
 - Departmental operational relationships and required adjacencies

In general, the functional program should clarify project terminology, set priorities, and reflect a consensus on the project requirements among those who will be affected by the proposed project. The functional program must be fully understood and approved by the project team before it is turned over to the design team to guide design.

The functional program will serve as a statement of the clear intent of the original drafters for years to come and provides an important foundation for how the building is intended to function and for planning future alterations to the facility.

What changed in the *Guidelines* and why?

Because of the importance of this planning document, the text on the functional program in Chapter 1.2 of the 2014 edition of the *Guidelines* has been simplified to clarify what is required. All the information needed to apply the functional program requirements is located in the main text of Chapter 1.2, with additional explanatory or educational information in the appendix. References to the functional program in Parts 2 and 3 have been significantly reduced and, where appropriate, replaced with specific requirements.

The main text in Chapter 1.2 indicates the need for an executive summary and outlines the content to be included in the body of the functional program. Explanatory information can be found in the appendix. Because the environment of care (EOC) and safety risk assessment (SRA) are typically considered during the project design phase rather than during the initial planning phase (when the functional program is first developed), the *Guidelines* requirements relating to these important concerns appear as separate sections in Chapter 1.2 rather than subsections under the umbrella of the functional program.

In addition, evaluating the introductory phrase “as required by the functional program,” which appeared throughout the 2010 *Guidelines*, was a major focus of the 2014 Health Guidelines Revision Committee. This effort, including many proposals from the public, resulted in a significant reduction in these random references. Many others were adjusted to clarify the intent of the requirement. If there was a question about meaning, the functional program reference was retained awaiting adjustment during the public proposal period for the 2018 edition. Several examples of the changes that were made are shown in the sidebar on the next page.

Minimum standard versus best practice

The Facility Guidelines Institute is committed to maintaining the *Guidelines for Design and Construction of Hospitals and Outpatient Facilities* as a minimum standard for American health care facility design. FGI’s primary goal is “the promotion of safe practices and methods in planning, design, and construction for various types of health care facilities” (Section 1.1-1.2.1 in the 2014 document). Each chapter in the *Guidelines* conveys information that is intended as fundamental requirements for the design and construction of new health care facility projects and major renovations. (It is up to the owner and the designer to determine when these minimum guidelines are insufficient to assure that the final project will meet the needs of the owner.) Information that is educational (e.g., definitions, useful acronyms, or recommendations for best practices, including references to relevant white papers or other publications) can be found in the appendix.

Sample Changes to Functional Program Reference in the 2014 Edition

The change just below was the result of the functional program reference review, which indicated the reference to the functional program did not add any useful information.

2010 Edition

2.1-2.7.1 Staff Lounge Facilities

Lounge facilities shall be sized per the functional program but shall not be less than 100 square feet (9.29 square meters).

2014 Edition

2.1-2.7.1 Staff Lounge Facilities

Lounge facilities of no less than 100 square feet (9.29 square meters) shall be provided.

The change illustrated in the following example was made to give guidance in the body of the *Guidelines* for determining when a project might require provision of more than the minimum clear floor area.

2010 Edition

2.2-2.2.2 Patient Room

2.2-2.2.2.2 Space requirements

***(1) Area**

- (a) Patient rooms shall be constructed to meet the needs of the functional program.
- (b) Patient rooms shall have a minimum clear floor area of 120 square feet (11.15 square meters) in single-bed rooms and 100 square feet (9.29 square meters) per bed in multiple-bed rooms.

2014 Edition

2.2-2.2.2 Patient Room

2.2-2.2.2.2 Space requirements

***(1) Area**

- (a) Patient rooms shall be sized to accommodate the needs of the clinical services provided.
- (b) Patient rooms shall have a minimum clear floor area of 120 square feet (11.15 square meters) in single-bed rooms and 100 square feet (9.29 square meters) per bed in multiple-bed rooms.

The next change was made because the reference to the functional program conflicted with the requirement in Section 2.1-8.3.7.1 (1) to provide call stations as indicated in the *Guidelines* medical gas outlets table.

2010 Edition

2.1-8.3.7.5 Code call stations. Commonly referred to as a “Code Blue,” code call stations are meant for use during a life-threatening situation to summon assistance from outside the unit or department.

- (1) Code call stations shall be provided per the functional program.
- (2) The code call station shall be equipped with a continuous audible or visual confirmation to the person who initiated the code call.

2014 Edition

***2.1-8.3.7.5 Code call stations.** The code call station shall be equipped with a continuous audible or visual confirmation to the person who initiated the code call.

A2.1-8.3.7.5 Commonly referred to as a “Code Blue,” code call stations are meant for use during a life-threatening situation to summon assistance from outside the unit or department.

In evaluating whether the functional program belongs in the body of the *Guidelines* or in the appendix, the HGRC strongly voted to reaffirm that developing a functional program with content as outlined earlier in this article is a minimum standard for health care facility projects. However, HGRC members believe that most health care facility projects would benefit from a functional program that goes beyond these minimum requirements (including, for example, concept drawings/sketches, narratives outlining assumptions regarding materials and systems to be used, and related cost and schedule information) and that best practices for creating a functional program in a health care setting should be established and used to support compliance with the *Guidelines* requirement.

The functional program in the 2014 edition

The 2014 *Guidelines for Design and Construction of Hospitals and Outpatient Facilities* enhances the requirements for creating a functional program found in previous editions. The new edition establishes Chapter 1.2 as the location for functional program requirements; clearly identifies the functional program as a necessary planning document for all hospitals and outpatient facilities undergoing new construction or major renovation projects; states when the functional program shall be conducted, updated, and revised; and identifies the owner as the party responsible for commissioning a functional program.

The text that resulted from these revisions clearly identifies the functional program as a minimum standard rather than an optional planning document. In addition, the stronger language, with its clarity of purpose, assures that development of a functional program is enforceable as code.

Functional Programming for Residential Health, Care, and Support Facilities

During the 2014 Guidelines revision cycle, the Facility Guidelines Institute chose to create a separate document to address long-term care settings. Similar to what was done in the 2014 *Guidelines for Design and Construction of Hospitals and Outpatient Facilities*, the functional programming text included in the new *Guidelines for Design and Construction of Residential Health, Care, and Support Facilities* was framed to support a project planning process that places at its core consideration of how the delivered project will be used.

The goal of functional programming as presented in the Residential *Guidelines* is to respond to operational needs as expressed in the answers to the following questions:

- Who will be served by the project?
- What user activities will occur in the spaces affected or created by the project?
- Why is each user group engaged in each activity?
- When will these activities take place?
- Where will these activities take place?
- What resources will be needed to carry out these activities?

Through the filter of the owner's expectations for the delivery of care model and project scope, stakeholders' responses to these questions form the owner's project requirements, which are the basis for functional programming for resident-centered environments. It is important to identify the care model, desired resident/participant outcomes, and every relevant operational need and process flow for each project. Often a high-level evaluation is completed at the beginning of the functional programming process followed by a more detailed set of questions and responses that informs planning and design of the physical space and any ramifications for fixtures, furniture, and equipment. In conjunction with the environment of care considerations and responses to the resident safety risk assessment, development and use of the functional program is the basis for achieving successful residential health, care and support facilities.

—Jane Rohde

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