
14980
Arapahoe
Centre Point Plaza

CHAPTER five

PRECAST CONCRETE GUIDE SPECIFICATIONS

Architectural & Structural

For more information on the guide specifications and on general practices, see Chapter 10, "Specifications and Standard Practices" in PCI's MNL-120-04: *PCI Design Handbook, Sixth Edition.*

The precast, prestressed concrete industry has grown rapidly, and certain practices relating to the design, manufacture, and erection of precast concrete have become standards in many areas of North America. As a result, the *Code of Standard Practice for Precast Concrete* has been compiled and presented in the form of recommendations for the guidance of those involved with the use of structural and architectural precast concrete.

The goal of the code is to build a better understanding of precast concrete by suggesting standards and practices that more clearly define procedures and responsibilities, thus resulting in fewer problems for everyone involved in the planning and execution of projects.

As the precast, prestressed concrete industry continues to evolve, additional practices will become standard and current standards will require modification. PCI will continue to revise the code and update this binder to ensure that designers remain current with standards and approaches to maximizing the benefits of precast concrete components.

ARCHITECTURAL GUIDE SPECIFICATIONS

Architectural precast concrete is characterized by a higher standard of uniformity of appearance with respect to surface details, color, and texture than that of structural precast concrete. Typical architectural precast concrete elements fall into two groups:

1. Major primary elements, including wall panels, window-wall panels, and column covers; and

2. Other components, such as decorative pieces and trim units, including copings, mullions, sills, and appurtenances such as benches and bollards.

To avoid misunderstandings, it is important that the contract documents for each project list all the components that are considered to be architectural precast concrete. Quality assurance for architectural precast concrete is defined in PCI's MNL-117-96: *Manual for Quality Control for Plants and Production of Architectural Precast Concrete Products, Third Edition.*

Guide specifications for architectural precast concrete that designers can use to create their specifications are available from PCI in electronic form. These specifications must be edited to fit the conditions of use for each specific project. Particular attention must be given to the deletion of inapplicable provisions. Necessary items related to a particular project should be included, and appropriate requirements should be added where blank spaces are provided.

For more information on the guide specifications and on general practices, see Chapter 10, "Specifications and Standard Practices" in PCI's MNL-120-04: *PCI Design Handbook, Sixth Edition.*

STRUCTURAL GUIDE SPECIFICATIONS

Structural precast concrete usually includes a variety of components. These include:

beams	column covers	columns
double tees	hollow-core slabs	insulated sandwich wall panels
litewalls	modular units	mullions
piles	raker beams	shearwalls
sheet piles	solid slabs	spandrels
stadium risers	stairs	wall panels

To avoid misunderstandings, it is important that the contract documents for each project list all of the elements that are considered to be structural precast concrete components.

Some structural members may be left exposed in the structure for desired aesthetic purposes. High-quality, attractive architectural treatments may be provided on the surface of these structural elements, and these should be specially listed in the contract documents. Quality assurance for structural precast concrete and structural precast concrete with an architectural finish is defined in PCI's MNL-116-99: *Manual for Quality Control for Plants and Production of Structural Precast Concrete Products.*

Guide specifications for structural precast concrete that designers can use to create their specifications are available for designer from PCI in electronic form. These specifications must be edited to fit the conditions of use for each specific project. Particular attention must be given to the deletion of inapplicable provisions. Necessary items related to a particular project should be included, and appropriate requirements should be added where blank spaces are provided.