

“What’s Up with Specifications?”

MasterFormat™ 2004 and MASTERSPEC®

By Paul M. Brosnahan, AIA, CSI, CCS

Have you noticed a trickle of specification sections appearing with unfamiliar section numbers and titles? During 2005, this trickle will turn into a flood. A major revision of CSI/CSC's MasterFormat™ has been published, and the familiar 16 Divisions and five-digit numbers have been discarded. This article previews the impact of some of these changes.

New in 2005

CSI in the United States and CSC in Canada have jointly released the 2004 edition of *MasterFormat*, the primary source used by owners, design professionals, contractors, and manufacturers to code and list specification sections. This latest edition of *MasterFormat* has been broadened and extensively rewritten to reflect cradle-to-grave construction issues. New titles have been intertwined with familiar old titles. Commonly encountered topics such as performance requirements, life cycle activities, commissioning requirements, and operations and maintenance requirements have been added.

MasterFormat Changes

MasterFormat is to specifications what the Dewey decimal or Library of Congress classification systems are to library collections - an organizational tool. Two fundamental changes that will affect the organization of specification documents are noteworthy.

Fifty Divisions

The 16 divisions have become 50 divisions; (see *Table 1*) Divisions 1 through 14 remain quite recognizable, except that most of the contents of Division 2 have been relocated, leaving a sprinkling of demolition and site and facility remediation sections in its place.

Site and subsurface construction topics move to Divisions 31 and 32. Division 31 includes site clearing, earth moving, shoring and underpinning, excavation support and protection, slurry walls, driven and bored piles, and drilled concrete piers and shafts. Division 32 includes site improvements such as flexible and rigid paving, retaining walls, and landscaping.

Five- and Six-Digit Numbers

Section numbering has changed. The familiar numbering system using five digits has been expanded to six digits. *Table 2* illustrates some of this renumbering and, in some cases, re-titling. While six-digit numbers cope with most situations, eight-digit numbers have been developed for very narrow-scoped sections.

Other Changes

Other significant changes include the relocation of Divisions 15 and 16 and the fire suppression sections in Division 13. These have been moved to a separate facility services subgroup, Divisions 21 through 28. Divisions 33 through 35 include utilities, transportation, and waterway and marine topics. A process equipment sub-grouping has been introduced in Divisions 40 through 48.

Table 1	
MasterFormat™ 2004 Division Numbers and Titles	
Procurement and Contracting Requirements Group	
Div. 00	Procurement and Contracting Requirements
Specifications Group	
General Requirements Subgroup	
Div. 01	General Requirements
Facility Construction Subgroup	
Div. 02	Existing Conditions
Div. 03	Concrete
Div. 04	Masonry
Div. 05	Metals
Div. 06	Wood, Plastics, and Composites
Div. 07	Thermal and Moisture Protection
Div. 08	Openings
Div. 09	Finishes
Div. 10	Specialties
Div. 11	Equipment
Div. 12	Furnishings
Div. 13	Special Construction
Div. 14	Conveying Equipment
Div. 15	Reserved
Div. 16	Reserved
Div. 17	Reserved
Div. 18	Reserved
Div. 19	Reserved
Facility Services Subgroup	
Div. 20	Reserved
Div. 21	Fire Suppression
Div. 22	Plumbing
Div. 23	Heating, Ventilating, and Air Conditioning
Div. 24	Reserved
Div. 25	Integrated Automation
Div. 26	Electrical
Div. 27	Communications
Div. 28	Electronic Safety and Security
Div. 29	Reserved
Site and Infrastructure Subgroup	
Div. 30	Reserved
Div. 31	Earthwork
Div. 32	Exterior Improvements
Div. 33	Utilities
Div. 34	Transportation
Div. 35	Waterway and Marine Construction
Div. 36	Reserved
Div. 37	Reserved
Div. 38	Reserved
Div. 39	Reserved
Process Equipment Subgroup	
Div. 40	Process Integration
Div. 41	Material Processing and Handling Equipment
Div. 42	Process Heating, Cooling, and Drying Equipment
Div. 43	Process Gas and Liquid Handling, Purification, and Storage Equipment
Div. 44	Pollution Control Equipment
Div. 45	Industry-Specific Manufacturing Equipment
Div. 46	Reserved
Div. 47	Reserved
Div. 48	Electrical Power Generation
Div. 49	Reserved

035200 - Lightweight Concrete Roof Insulation
 035216 - Lightweight Insulating Concrete
 035216.13 - Lightweight Cellular Insulating Concrete
 035216.16 - Lightweight Aggregate Insulating Concrete

Paul Brosnahan, AIA, CSI, CCS, is Director of Architectural Specifications for ARCOM, publisher of AIA MASTERSPEC® and is responsible for architectural and structural engineering guide specifications. Paul is a member of the AISC Committee on the Code of Standard Practice. pbrosnahan@arcomnet.com

Figure 1

Tiered Titles

Specification Levels

Specification sections can be titled at any preferred level; there are no hard and fast rules. Figure 1 is an example of classifying a building element in descending tiers of six-digit to eight-digit numbers corresponding to the narrowing of section content.

MASTERSPEC Section 035216 - *Lightweight Insulating Concrete* takes an intermediate level title because it includes lightweight aggregate insulating concrete as well as cellular lightweight insulating concretes. Once edited for a project, the section title may be left as is or renamed.

Specifications Impact

To keep this change in perspective, *MasterFormat* classifications do not directly affect specification content. That will remain as before with an occasional specification section being consolidated or split to fit the new titling structure. MASTERSPEC will be published in early 2005 using both the old and the new sets of numbers and titles to allow the design professional latitude to decide when to implement the change.

Implementation

Information providers have worked closely with CSI/CSC during the development of *MasterFormat* and have been gearing up to make the transition as seamless as possible for the design professional. Publication lead times make delays inevitable but it is widely expected that the new references will be in place industry-wide early in 2006.

Product-information web sites and cost estimating providers have targeted conversion to be complete by early 2005. Manufacturers will be publishing product data with new references throughout 2005, with some not completing this process until 2006. Contractor bidding data and costing records will be affected, and changeover is expected to follow soon after design professionals adopt the new classification system. ■

©2004 MasterFormat™ copyright is held in the U.S. by the Construction Specifications Institute (CSI), and in Canada by Construction Specifications Canada (CSC). www.csinet.org

OLD		NEW	
DIV. 2	SITE CONSTRUCTION	DIV. 02	EXISTING CONDITIONS
02221	Building Demolition	024116	Structure Demolition
02260	Excavation Support and Protection		
02455	Driven Piles		
02456	Concrete-Filled Steel Piles		
02457	Prestressed Concrete Piles		
02458	Steel H Piles		
02459	Timber Piles		
02466	Drilled Piers		
02832	Segmental Retaining Walls		
DIV. 3	CONCRETE	DIV. 03	CONCRETE
		030130	Maintenance of Cast-in-Place Concrete
03300	Cast-in-Place Concrete	033000	Cast-in-Place Concrete
03371	Shotcrete	033713	Shotcrete
03381	Unbonded Post-Tensioned Concrete	033816	Unbonded Post-Tensioned Concrete
03410	Plant-Precast Structural Concrete	034100	Precast Structural Concrete
03450	Architectural Precast Concrete	034500	Precast Architectural Concrete
03471	Tilt-Up Concrete	034713	Tilt-up Concrete
03491	Glass Fiber Reinforced Concrete	034900	Glass-Fiber-Reinforced Concrete
03511	Cementitious Wood-Fiber Deck	035113	Cementitious Wood Fiber Decks
03521	Lightweight Insulating Concrete	035216	Lightweight Insulating Concrete
03930	Concrete Rehabilitation		
DIV. 4	MASONRY	DIV. 04	MASONRY
04810	Unit Masonry Assemblies		
04901	Clay Masonry Restoration and Cleaning	040120	Maintenance of Unit Masonry
04902	Stone Restoration and Cleaning	040140	Maintenance of Stone Assemblies
		042000	Unit Masonry
DIV. 5	METALS	DIV. 05	METALS
05120	Structural Steel	051200	Structural Steel Framing
05210	Steel Joists	052100	Steel Joist Framing
05310	Steel Deck	053100	Steel Decking
05400	Cold-Formed Metal Framing	054000	Cold-Formed Metal Framing
05511	Metal Stairs	055100	Metal Stairs
DIV. 6	WOOD AND PLASTICS	DIV. 06	WOOD, PLASTICS, AND COMPOSITES
06100	Rough Carpentry	061000	Rough Carpentry
06130	Heavy Timber Construction	061323	Heavy Timber Construction
06160	Sheathing	061600	Sheathing
06176	Metal-Plate-Connected Wood Trusses	061753	Shop-Fabricated Wood Trusses
06185	Structural Glued-Laminated Timber	061800	Glued-Laminated Construction
DIV. 7	THERMAL AND MOISTURE PROTECTION	DIV. 07	THERMAL AND MOISTURE PROTECTION
07811	Sprayed Fire-Resistive Materials	071800	Applied Fireproofing
DIV. 9	FINISHES	DIV. 09	FINISHES
09911	Exterior Painting	099113	Exterior Painting
09960	High-Performance Coatings	099600	High-Performance Coatings
DIV. 13	SPECIAL CONSTRUCTION	DIV. 13	SPECIAL CONSTRUCTION
13125	Metal Building Systems	133419	Metal Building Systems
		DIV. 31	EARTHWORK
		315000	Excavation Support and Protection
		316200	Driven Piles
		316213	Concrete Piles
		316216	Steel Piles
		316219	Timber Piles
		316223	Composite Piles
		316329	Drilled Concrete Piers and Shafts
		DIV. 32	EXTERIOR IMPROVEMENTS
		323223	Segmental Retaining Walls

Source: MASTERSPEC® Copyright 2004 by The American Institute of Architects (AIA). All rights reserved. Exclusively published and distributed by Architectural Computer Services, Inc. (AROCOM) for the AIA.