MasterFormat® Numbers & Titles
April 2012

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00 00 00  Procurement and Contracting
Requirements

00 01 01  Project Title Page
00 01 05  Certifications Page
00 01 07  Seals Page
00 01 10  Table of Contents
00 01 15  List of Drawing Sheets
00 01 20  List of Schedules

00 10 00  Solicitation

00 11 00  Advertisements and Invitations
00 11 13  Advertisement for Bids
00 11 16  Invitation to Bid
00 11 19  Request for Proposal
00 11 53  Request for Qualifications

00 20 00  Instructions for Procurement

00 21 00  Instructions
00 21 13  Instructions to Bidders
00 21 16  Instructions to Proposers

00 22 00  Supplementary Instructions
00 22 13  Supplementary Instructions to Bidders
00 22 16  Supplementary Instructions to Proposers

00 23 00  Procurement Definitions

00 24 00  Procurement Scopes
00 24 13  Scopes of Bids
00 24 13.13  Scopes of Bids (Multiple Contracts)
00 24 13.16  Scopes of Bids (Multiple-Prime Contract)
00 24 16  Scopes of Proposals
00 24 16.13  Scopes of Proposals (Multiple Contracts)
00 24 16.16  Scopes of Proposals (Multiple-Prime Contract)

00 25 00  Procurement Meetings
00 25 13  Pre-Bid Meetings
00 25 16  Pre-Proposal Meetings

00 26 00  Procurement Substitution Procedures

00 30 00  Available Information

00 31 00  Available Project Information
00 31 13  Preliminary Schedules
00 31 13.13  Preliminary Project Schedule
00 31 13.16  Preliminary Construction Schedule
00 31 13.23  Preliminary Project Phases
00 31 13.26  Preliminary Project Sequencing
00 31 13.33  Preliminary Project Milestones
00 31 16  Project Budget Information
00 31 19  Existing Condition Information
00 31 19.13  Movement and Vibration Information
00 31 19.16  Acoustic Information
00 31 19.19  Traffic Information
00 31 19.23 Existing Structural Information
00 31 21 Survey Information
00 31 21.13 Site Survey Information
00 31 21.16 Measured Drawing Information
00 31 21.19 Photographic Information
00 31 24 Environmental Assessment Information
00 31 24.13 Soil Contamination Report
00 31 24.23 Environmental Impact Study Report
00 31 24.26 Environmental Impact Report Evaluation
00 31 24.29 Record of Environmental Impact Decision
00 31 24.33 Environmental Impact Mitigation Report
00 31 25 Existing Material Information
00 31 25.16 Existing Concrete Information
00 31 25.19 Existing Masonry Information
00 31 25.23 Existing Metals Information
00 31 25.26 Existing Wood, Plastics, and Composites Information
00 31 25.29 Existing Thermal and Moisture Protection Information
00 31 26 Existing Hazardous Material Information
00 31 26.23 Existing Asbestos Information
00 31 26.26 Existing Lead Information
00 31 26.29 Existing Polychlorinate Biphenyl Information
00 31 26.33 Existing Mold Information
00 31 26.36 Existing Hazardous Waste Drum Information
00 31 31 Geophysical Data
00 31 31.13 Seismic Investigations Information
00 31 31.16 Gravity Investigations Information
00 31 31.19 Magnetic Investigations Information
00 31 31.23 Electromagnetic Investigations Information
00 31 31.26 Electrical Resistivity Investigations Information
00 31 31.29 Magnetotelluric Investigations Information
00 31 32 Geotechnical Data
00 31 32.13 Subsurface Drilling and Sampling Information
00 31 32.16 Material Testing Information
00 31 32.19 Exploratory Excavation Information
00 31 32.23 Geotechnical Monitoring Information
00 31 43 Permit Application
00 31 46 Permits

00 40 00 Procurement Forms and Supplements

00 41 00 Bid Forms
00 41 13 Bid Form – Stipulated Sum (Single-Prime Contract)
00 41 16 Bid Form – Stipulated Sum (Multiple-Prime Contract)
00 41 23 Bid Form – Construction Management (Single-Prime Contract)
00 41 26 Bid Form – Construction Management (Multiple-Prime Contract)
00 41 33 Bid Form – Cost-Plus-Fee (Single-Prime Contract)
00 41 36 Bid Form – Cost-Plus-Fee (Multiple-Prime Contract)
00 41 43 Bid Form – Unit Price (Single-Prime Contract)
00 41 46 Bid Form – Unit Price (Multiple-Prime Contract)
00 41 53 Bid Form – Design/Build (Single-Prime Contract)
00 41 56 Bid Form – Design/Build (Multiple-Prime Contract)
00 41 63 Bid Form – Purchase Contract

00 42 00 Proposal Forms
00 42 13 Proposal Form – Stipulated Sum (Single-Prime Contract)
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>00 42 16</td>
<td>Proposal Form – Stipulated Sum (Multiple-Prime Contract)</td>
</tr>
<tr>
<td>00 42 23</td>
<td>Proposal Form – Construction Management (Single-Prime Contract)</td>
</tr>
<tr>
<td>00 42 26</td>
<td>Proposal Form – Construction Management (Multiple-Prime Contract)</td>
</tr>
<tr>
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<td>Proposal Form – Cost-Plus-Fee (Single-Prime Contract)</td>
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<td>00 42 36</td>
<td>Proposal Form – Cost-Plus-Fee (Multiple-Prime Contract)</td>
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<td>Proposal Form – Unit Price (Single-Prime Contract)</td>
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<tr>
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<td>Proposal Form – Unit Price (Multiple-Prime Contract)</td>
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<tr>
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<td>Proposal Form – Design/Build (Single-Prime Contract)</td>
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<tr>
<td>00 42 56</td>
<td>Proposal Form – Design/Build (Multiple-Prime Contract)</td>
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<tr>
<td>00 42 63</td>
<td>Proposal Form – Purchase Contract</td>
</tr>
<tr>
<td>00 42 73</td>
<td>Proposal Form – Performance Contract</td>
</tr>
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</table>

### Procurement Form Supplements

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>00 43 13</td>
<td>Bid Security Form</td>
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<tr>
<td>00 43 21</td>
<td>Allowance Form</td>
</tr>
<tr>
<td>00 43 22</td>
<td>Unit Prices Form</td>
</tr>
<tr>
<td>00 43 23</td>
<td>Alternates Form</td>
</tr>
<tr>
<td>00 43 25</td>
<td>Substitution Request Form (During Procurement)</td>
</tr>
<tr>
<td>00 43 26</td>
<td>Estimated Quantities Form</td>
</tr>
<tr>
<td>00 43 27</td>
<td>Separate Prices Break-Out Form</td>
</tr>
<tr>
<td>00 43 28</td>
<td>Tax Rebate Form</td>
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<td>00 43 33</td>
<td>Proposed Products Form</td>
</tr>
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<td>00 43 36</td>
<td>Proposed Subcontractors Form</td>
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<tr>
<td>00 43 39</td>
<td>Minority Business Enterprise Statement of Intent Form</td>
</tr>
<tr>
<td>00 43 43</td>
<td>Wage Rates Form</td>
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<tr>
<td>00 43 73</td>
<td>Proposed Schedule of Values Form</td>
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<tr>
<td>00 43 83</td>
<td>Proposed Construction Schedule Form</td>
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<tr>
<td>00 43 86</td>
<td>Proposed Work Plan Schedule Form</td>
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<tr>
<td>00 43 93</td>
<td>Bid Submittal Checklist</td>
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### Representations and Certifications

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tr>
<td>00 45 13</td>
<td>Bidder’s Qualifications</td>
</tr>
<tr>
<td>00 45 16</td>
<td>Proposer’s Qualifications</td>
</tr>
<tr>
<td>00 45 19</td>
<td>Non-Collusion Affidavit</td>
</tr>
<tr>
<td>00 45 23</td>
<td>Statement of Disposal Facility</td>
</tr>
<tr>
<td>00 45 26</td>
<td>Workers Compensation Certificate Schedule</td>
</tr>
<tr>
<td>00 45 33</td>
<td>Non-Segregated Facilities Affidavit</td>
</tr>
<tr>
<td>00 45 36</td>
<td>Equal Employment Opportunity Affidavit</td>
</tr>
<tr>
<td>00 45 39</td>
<td>Minority Business Enterprise Affidavit</td>
</tr>
<tr>
<td>00 45 43</td>
<td>Corporate Resolutions</td>
</tr>
<tr>
<td>00 45 46</td>
<td>Governmental Certifications</td>
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### Contracting Forms and Supplements

<table>
<thead>
<tr>
<th>Code</th>
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</thead>
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<tr>
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### Agreement Forms

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>00 52 13</td>
<td>Agreement Form – Stipulated Sum (Single-Prime Contract)</td>
</tr>
<tr>
<td>00 52 16</td>
<td>Agreement Form – Stipulated Sum (Multiple-Prime Contract)</td>
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<tr>
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<td>Agreement Form – Construction Management (Single-Prime Contract)</td>
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<td>Agreement Form – Cost Plus-Fee (Single-Prime Contract)</td>
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</tr>
<tr>
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</tr>
</tbody>
</table>
00 52 46 Agreement Form – Unit Price (Multiple-Prime Contract)
00 52 53 Agreement Form – Design/Build (Single-Prime Contract)
00 52 56 Agreement Form – Design/Build (Multiple-Prime Contract)
00 52 63 Agreement Form – Purchase
00 52 73 Agreement Form – Performance Contract
00 52 95 Agreement Form – Integrated Project Delivery

00 54 00 Agreement Form Supplements
  00 54 13 Supplementary Scope Statement
  00 54 21 Allowances Schedule
  00 54 22 Unit Prices Schedule
  00 54 33 Digital/Electronic Data Protocol Exhibit
  00 54 36 Building Information Modeling Exhibit

00 55 00 Notice to Proceed

00 60 00 Project Forms

00 61 00 Bond Forms
  00 61 13 Performance and Payment Bond Form
  00 61 13.13 Performance Bond Form
  00 61 13.16 Payment Bond Form
  00 61 16 Lien Bond Form
  00 61 19 Maintenance Bond Form
  00 61 23 Retainage Bond Form
  00 61 26 Special Bond Form

00 62 00 Certificates and Other Forms
  00 62 11 Submittal Transmittal Form
  00 62 16 Certificate of Insurance Form
  00 62 19 Infection Control Form
  00 62 23 Construction Waste Diversion Form
  00 62 33 Products Form
  00 62 34 Recycled Content of Materials Form
  00 62 39 Minority Business Enterprise Certification Form
  00 62 73 Schedule of Values Form
  00 62 76 Application for Payment Form
  00 62 76.13 Sales Tax Form
  00 62 76.16 Consent of Surety to Reduction of Retainage Form
  00 62 79 Stored Material Form
  00 62 83 Construction Schedule Form
  00 62 86 Work Plan Schedule Form
  00 62 89 Construction Equipment Form

00 63 00 Clarification and Modification Forms
  00 63 13 Request for Interpretation Form
  00 63 19 Clarification Form
  00 63 25 Substitution Request Form (During Construction)
  00 63 33 Supplemental Instruction Form
  00 63 36 Field Order Form
  00 63 43 Written Amendment Form
  00 63 46 Construction Change Directive Form
  00 63 49 Work Change Directive Form
  00 63 53 Request for Proposal Form
  00 63 54 Proposal Worksheet Summary Form
Proposal Worksheet Detail Form
Change Order Request Form
Change Order Form

Closeout Forms
Certificate of Compliance Form
Certificate of Substantial Completion Form
Certificate of Completion Form
Affidavit of Payment of Debts and Claims Form
Affidavit of Release of Liens Form
Consent of Surety to Final Payment Form
Acceptance Certificate Form
Final Settlement Certificate Form
Warranty Form
Statutory Declaration Form

Conditions of the Contract
Contracting Definitions

General Conditions
General Conditions – Stipulated Sum (Single-Prime Contract)
General Conditions – Stipulated Sum (Multiple-Prime Contract)
General Conditions – Construction Management (Single-Prime Contract)
General Conditions – Construction Management (Multiple-Prime Contract)
General Conditions – Cost Plus-Fee (Single-Prime Contract)
General Conditions – Cost-Plus-Fee (Multiple-Prime Contract)
General Conditions – Unit Price (Single-Prime Contract)
General Conditions – Unit Price (Multiple-Prime Contract)
General Conditions – Design/Build (Single-Prime Contract)
General Conditions – Design/Build (Multiple-Prime Contract)
General Conditions – Performance Contract
General Conditions – Integrated Project Delivery

Supplementary Conditions
Insurance Requirements
Health and Safety Requirements
Purchase Contracts
Assigned Contracts
Non-Segregated Facilities Requirements
Equal Employment Opportunity Requirements
Minority Business Enterprise Requirements
Wage Rate Requirements
Wage Determination Schedule
Labor Stabilization Agreement
Anti-Pollution Measures
Security Requirements
Statutory Requirements
Dispute Resolution

Revisions, Clarifications, and Modifications
Precontract Revisions
Addenda
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tr>
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<td><strong>Record Clarifications and Proposals</strong></td>
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<td>00 93 54</td>
<td>Record Proposal Worksheet Summaries</td>
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<td>Record Change Order Requests</td>
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<td><strong>Record Modifications</strong></td>
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<td>Record Minor Changes in the Work</td>
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<tr>
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<td>Record Field Orders</td>
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<tr>
<td>00 94 43</td>
<td>Record Amendments</td>
</tr>
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<td>Record Construction Change Directives</td>
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<td>Record Work Change Directives</td>
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<tr>
<td>00 94 63</td>
<td>Record Change Orders</td>
</tr>
</tbody>
</table>
01 00 00 General Requirements
01 10 00 Summary
01 11 00 Summary of Work
  01 11 13 Work Covered by Contract Documents
  01 11 16 Work by Owner
  01 11 19 Purchase Contracts
01 12 00 Multiple Contract Summary
  01 12 13 Summary of Contracts
  01 12 16 Work Sequence
  01 12 19 Contract Interface
01 14 00 Work Restrictions
  01 14 13 Access to Site
  01 14 16 Coordination with Occupants
  01 14 19 Use of Site
01 18 00 Project Utility Sources
  01 18 13 Utility Service Connections
01 20 00 Price and Payment Procedures
01 21 00 Allowances
  01 21 13 Cash Allowances
  01 21 16 Contingency Allowances
  01 21 19 Testing and Inspecting Allowances
  01 21 23 Installation Allowances
  01 21 26 Product Allowances
  01 21 29 Quantity Allowances
  01 21 43 Time Allowances
01 22 00 Unit Prices
  01 22 13 Unit Price Measurement
  01 22 16 Unit Price Payment
01 23 00 Alternates
01 24 00 Value Analysis
  01 24 13 Value Engineering
01 25 00 Substitution Procedures
  01 25 13 Product Substitution Procedures
  01 25 16 Execution Substitution Procedures
01 26 00 Contract Modification Procedures
  01 26 13 Requests for Interpretation
  01 26 19 Clarification Notices
  01 26 33 Minor Changes in the Work
  01 26 36 Supplemental Instructions
  01 26 39 Field Orders
  01 26 43 Amendments
  01 26 46 Construction Change Directives
  01 26 49 Work Change Directives
  01 26 53 Proposal Requests
  01 26 54 Proposal Worksheet Summaries
  01 26 57 Change Order Requests
01 26 63 Change Orders

01 29 00 Payment Procedures
  01 29 73 Schedule of Values
  01 29 76 Progress Payment Procedures
  01 29 83 Payment Procedures for Testing Laboratory Services

01 30 00 Administrative Requirements

01 31 00 Project Management and Coordination
  01 31 13 Project Coordination
  01 31 14 Facility Services Coordination
  01 31 16 Multiple Contract Coordination
  01 31 19 Project Meetings
  01 31 19.13 Preconstruction Meetings
  01 31 19.16 Site Mobilization Meetings
  01 31 19.23 Progress Meetings
  01 31 19.33 Preinstallation Meetings
  01 31 23 Project Web Site
  01 31 26 Electronic Communication Protocols

01 32 00 Construction Progress Documentation
  01 32 13 Scheduling of Work
  01 32 16 Construction Progress Schedule
  01 32 16.13 Network Analysis Schedules
  01 32 19 Submittals Schedule
  01 32 23 Survey and Layout Data
  01 32 26 Construction Progress Reporting
  01 32 29 Periodic Work Observation
  01 32 33 Photographic Documentation
  01 32 36 Video Monitoring and Documentation
  01 32 43 Purchase Order Tracking

01 33 00 Submittal Procedures
  01 33 13 Certificates
  01 33 16 Design Data
  01 33 19 Field Test Reporting
  01 33 23 Shop Drawings, Product Data, and Samples
  01 33 26 Source Quality Control Reporting
  01 33 29 Sustainable Design Reporting
  01 33 29.01 Material Cost Summary Form
  01 33 29.02 Wood-Containing Product List
  01 33 29.03 Metal-Containing Product List
  01 33 29.04 Material Content Form
  01 33 29.05 New Product Source Form
  01 33 29.06 Reused Product Form
  01 33 29.07 Prohibited Content Installer Certification

01 35 00 Special Procedures
  01 35 13 Special Project Procedures
  01 35 13.13 Special Project Procedures for Airport Facilities
  01 35 13.16 Special Project Procedures for Detention Facilities
  01 35 13.19 Special Project Procedures for Healthcare Facilities
  01 35 13.26 Special Project Procedures for Clean Rooms
  01 35 13.43 Special Project Procedures for Contaminated Sites
  01 35 16 Alteration Project Procedures
01 35 23 Owner Safety Requirements
01 35 26 Governmental Safety Requirements
01 35 29 Health, Safety, and Emergency Response Procedures
01 35 29.13 Health, Safety, and Emergency Response Procedures for Contaminated Sites
01 35 33 Infection Control Procedures
01 35 43 Environmental Procedures
01 35 43.13 Environmental Procedures for Hazardous Materials
01 35 43.16 Environmental Procedures for Toxic Materials
01 35 46 Indoor Air Quality Procedures
01 35 53 Security Procedures
01 35 63 Sustainability Certification Project Requirements
01 35 66 Sustainability Certification Project Procedures
01 35 91 Historic Treatment Procedures

01 40 00 Quality Requirements

01 41 00 Regulatory Requirements
01 41 13 Codes
01 41 16 Laws
01 41 19 Rules
01 41 23 Fees
01 41 26 Permit Requirements

01 42 00 References
01 42 13 Abbreviations and Acronyms
01 42 16 Definitions
01 42 19 Reference Standards

01 43 00 Quality Assurance
01 43 13 Manufacturer Qualifications
01 43 16 Supplier Qualifications
01 43 19 Fabricator Qualifications
01 43 23 Installer Qualifications
01 43 26 Testing and Inspecting Agency Qualifications
01 43 29 Code-Required Special Inspector Qualifications
01 43 33 Manufacturer’s Field Services
01 43 36 Field Samples
01 43 39 Mockups

01 45 00 Quality Control
01 45 13 Source Quality Control Procedures
01 45 16 Field Quality Control Procedures
01 45 16.13 Contractor Quality Control
01 45 23 Testing and Inspecting Services
01 45 26 Plant Inspection Procedures
01 45 29 Testing Laboratory Services
01 45 33 Code-Required Special Inspections and Procedures

01 50 00 Temporary Facilities and Controls

01 51 00 Temporary Utilities
01 51 13 Temporary Electricity
01 51 16 Temporary Fire Protection
01 51 19 Temporary Fuel Oil
01 51 23 Temporary Heating, Cooling, and Ventilating
01 51 26  Temporary Lighting
01 51 29  Temporary Natural-Gas
01 51 33  Temporary Telecommunications
01 51 36  Temporary Water

01 52 00  Construction Facilities
01 52 13  Field Offices and Sheds
01 52 16  First Aid Facilities
01 52 19  Sanitary Facilities

01 53 00  Temporary Construction
01 53 13  Temporary Bridges
01 53 16  Temporary Decking
01 53 19  Temporary Overpasses
01 53 23  Temporary Ramps
01 53 26  Temporary Runarounds

01 54 00  Construction Aids
01 54 13  Temporary Elevators
01 54 16  Temporary Hoists
01 54 19  Temporary Cranes
01 54 23  Temporary Scaffolding and Platforms
01 54 26  Temporary Swing Staging

01 55 00  Vehicular Access and Parking
01 55 13  Temporary Access Roads
01 55 16  Haul Routes
01 55 19  Temporary Parking Areas
01 55 23  Temporary Roads
01 55 26  Traffic Control
01 55 29  Staging Areas

01 56 00  Temporary Barriers and Enclosures
01 56 13  Temporary Air Barriers
01 56 16  Temporary Dust Barriers
01 56 19  Temporary Noise Barriers
01 56 23  Temporary Barricades
01 56 26  Temporary Fencing
01 56 29  Temporary Protective Walkways
01 56 33  Temporary Security Barriers
01 56 36  Temporary Security Enclosures
01 56 39  Temporary Tree and Plant Protection

01 57 00  Temporary Controls
01 57 13  Temporary Erosion and Sediment Control
01 57 16  Temporary Pest Control
01 57 19  Temporary Environmental Controls
01 57 23  Temporary Storm Water Pollution Control
01 57 26  Site Watering for Dust Control

01 58 00  Project Identification
01 58 13  Temporary Project Signage
01 58 16  Temporary Interior Signage

01 60 00  Product Requirements
01 61 00  Common Product Requirements
01 61 13  Software Licensing Requirements
01 62 00  Product Options
01 64 00  Owner-Furnished Products
01 65 00  Product Delivery Requirements
01 66 00  Product Storage and Handling Requirements
  01 66 13  Product Storage and Handling Requirements for Hazardous Materials
  01 66 16  Product Storage and Handling Requirements for Toxic Materials
01 70 00  Execution and Closeout Requirements
01 71 00  Examination and Preparation
  01 71 13  Mobilization
  01 71 16  Acceptance of Conditions
  01 71 23  Field Engineering
  01 71 23.13  Construction Layout
  01 71 23.16  Construction Surveying
  01 71 33  Protection of Adjacent Construction
  01 71 36  Non-Destructive Concrete Examination
01 73 00  Execution
  01 73 13  Application
  01 73 16  Erection
  01 73 19  Installation
  01 73 23  Bracing and Anchoring
  01 73 26  Existing Products
  01 73 29  Cutting and Patching
01 74 00  Cleaning and Waste Management
  01 74 13  Progress Cleaning
  01 74 16  Site Maintenance
  01 74 19  Construction Waste Management and Disposal
  01 74 23  Final Cleaning
01 75 00  Starting and Adjusting
  01 75 13  Checkout Procedures
  01 75 16  Startup Procedures
01 76 00  Protecting Installed Construction
01 77 00  Closeout Procedures
  01 77 13  Preliminary Closeout Reviews
  01 77 16  Final Closeout Review
  01 77 19  Closeout Requirements
01 78 00  Closeout Submittals
  01 78 13  Completion and Correction List
  01 78 19  Maintenance Contracts
  01 78 23  Operation and Maintenance Data
  01 78 23.13  Operation Data
  01 78 23.16  Maintenance Data
  01 78 23.19  Preventative Maintenance Instructions
  01 78 29  Final Site Survey
  01 78 33  Bonds
  01 78 36  Warranties
  01 78 39  Project Record Documents
  01 78 43  Spare Parts
01 78 46 Extra Stock Materials
01 78 53 Sustainable Design Closeout Documentation

01 79 00 Demonstration and Training

01 80 00 Performance Requirements
01 81 00 Facility Performance Requirements
01 81 13 Sustainable Design Requirements
01 81 16 Facility Environmental Requirements
01 81 19 Indoor Air Quality Requirements

01 82 00 Facility Substructure Performance Requirements
01 82 13 Foundation Performance Requirements
01 82 16 Basement Construction Performance Requirements

01 83 00 Facility Shell Performance Requirements
01 83 13 Superstructure Performance Requirements
01 83 16 Exterior Enclosure Performance Requirements
01 83 19 Roofing Performance Requirements

01 84 00 Interiors Performance Requirements
01 84 13 Interior Construction Performance Requirements
01 84 16 Stairways Performance Requirements
01 84 19 Interior Finishes Performance Requirements

01 85 00 Conveying Equipment Performance Requirements

01 86 00 Facility Services Performance Requirements
01 86 13 Fire Suppression Performance Requirements
01 86 16 Plumbing Performance Requirements
01 86 19 HVAC Performance Requirements
01 86 23 Integrated Automation Performance Requirements
01 86 26 Electrical Performance Requirements
01 86 29 Communications Performance Requirements
01 86 33 Electronic Safety and Security Performance Requirements

01 87 00 Equipment and Furnishings Performance Requirements
01 87 13 Equipment Performance Requirements
01 87 16 Furnishings Performance Requirements

01 88 00 Other Facility Construction Performance Requirements
01 88 13 Special Construction Performance Requirements
01 88 16 Selective Construction Performance Requirements

01 89 00 Site Construction Performance Requirements
01 89 13 Site Preparation Performance Requirements
01 89 16 Site Improvements Performance Requirements
01 89 19 Site Plumbing Utilities Performance Requirements
01 89 23 Site HVAC Utilities Performance Requirements
01 89 26 Site Electrical Utilities Performance Requirements
01 89 29 Other Site Construction Performance Requirements

01 90 00 Life Cycle Activities

01 91 00 Commissioning
01 91 13 General Commissioning Requirements
01 91 16 Facility Substructure Commissioning
01 91 16.13  Foundation Commissioning
01 91 16.53  Basement Construction Commissioning
01 91 19    Facility Shell Commissioning
01 91 19.13 Superstructure Commissioning
01 91 19.43 Exterior Enclosure Commissioning
01 91 19.73  Roofing Commissioning
01 91 23    Interiors Commissioning
01 91 23.13 Interior Construction Commissioning
01 91 23.43 Stairways Commissioning
01 91 23.73  Interior Finishes Commissioning

01 92 00    Facility Operation
            01 92 13  Facility Operation Procedures

01 93 00    Facility Maintenance
            01 93 13  Facility Maintenance Procedures
            01 93 16  Recycling Programs

01 94 00    Facility Decommissioning
            01 94 13  Facility Decommissioning Procedures
02 00 00 Existing Conditions
  02 01 00 Maintenance of Existing Conditions
    02 01 50 Maintenance of Site Remediation
    02 01 65 Maintenance of Underground Storage Tank Removal
    02 01 80 Maintenance of Facility Remediation
    02 01 86 Maintenance of Hazardous Waste Drum Handling
  02 05 00 Common Work Results for Existing Conditions
    02 05 19 Geosynthetics for Existing Conditions
    02 05 19.13 Geotextiles for Existing Conditions
    02 05 19.16 Geomembranes for Existing Conditions
    02 05 19.19 Geogrids for Existing Conditions
  02 06 00 Schedules for Existing Conditions
    02 06 30 Schedules for Subsurface Investigations
    02 06 30.13 Boring or Test Pit Log Schedule
    02 06 50 Schedules for Site Remediation
    02 06 65 Schedules for Underground Storage Tank Removal
    02 06 80 Schedules for Facility Remediation
    02 06 86 Schedules for Hazardous Waste Drum Handling
  02 08 00 Commissioning of Existing Conditions
  02 20 00 Assessment
    02 21 00 Surveys
      02 21 13 Site Surveys
      02 21 13.13 Boundary and Survey Markers
      02 21 13.23 Archeological and Historic Surveys
      02 21 16 Measured Drawings
    02 22 00 Existing Conditions Assessment
      02 22 13 Movement and Vibration Assessment
      02 22 16 Acoustic Assessment
      02 22 19 Traffic Assessment
      02 22 23 Accessibility Assessment
    02 24 00 Environmental Assessment
      02 24 13 Natural Environment Assessment
      02 24 13.13 Air Assessment
      02 24 13.43 Water Assessment
      02 24 13.73 Land Assessment
      02 24 23 Chemical Sampling and Analysis of Soils
      02 24 43 Transboundary and Global Environmental Aspects Assessment
    02 25 00 Existing Material Assessment
      02 25 16 Existing Concrete Assessment
      02 25 16.13 Concrete Assessment Drilling
      02 25 19 Existing Masonry Assessment
      02 25 19.13 Masonry Assessment Drilling
      02 25 23 Existing Metals Assessment
      02 25 23.13 Welding Investigations
      02 25 26 Existing Wood, Plastics, and Composites Assessment
      02 25 29 Existing Thermal and Moisture Protection Assessment
      02 25 29.13 Waterproofing Investigations
      02 25 29.23 Roofing Investigations
02 26 00  | **Hazardous Material Assessment**
02 26 23  | Asbestos Assessment
02 26 26  | Lead Assessment
02 26 29  | Polychlorinate Biphenyl Assessment
02 26 33  | Biological Assessment
02 26 33.13 | Mold Assessment
02 26 36  | Hazardous Waste Drum Assessment

02 30 00  | **Subsurface Investigation**

02 31 00  | **Geophysical Investigations**
02 31 13  | Seismic Investigations
02 31 16  | Gravity Investigations
02 31 19  | Magnetic Investigations
02 31 23  | Electromagnetic Investigations
02 31 26  | Electrical Resistivity Investigations
02 31 29  | Magnetotelluric Investigations

02 32 00  | **Geotechnical Investigations**
02 32 13  | Subsurface Drilling and Sampling
02 32 16  | Material Testing
02 32 19  | Exploratory Excavations
02 32 23  | Geotechnical Monitoring Before Construction
02 32 23.13 | Groundwater Monitoring Before Construction

02 40 00  | **Demolition and Structure Moving**

02 41 00  | **Demolition**
02 41 13  | Selective Site Demolition
02 41 13.13 | Paving Removal
02 41 13.23 | Utility Line Removal
02 41 13.33 | Railtrack Removal
02 41 16  | Structure Demolition
02 41 16.13 | Building Demolition
02 41 16.23 | Tower Demolition
02 41 16.33 | Bridge Demolition
02 41 16.43 | Dam Demolition
02 41 19  | Selective Demolition
02 41 19.13 | Selective Building Demolition
02 41 19.16 | Selective Interior Demolition
02 41 19.19 | Selective Facility Services Demolition
02 41 19.33 | Selective Bridge Demolition
02 41 91  | Selective Historic Demolition

02 42 00  | **Removal and Salvage of Construction Materials**
02 42 13  | Deconstruction of Structures
02 42 13.13 | Deconstruction of Buildings
02 42 91  | Removal and Salvage of Historic Construction Materials

02 43 00  | **Structure Moving**
02 43 13  | Structure Relocation
02 43 13.13 | Building Relocation
02 43 16  | Structure Raising
02 43 16.13 | Building Raising

02 50 00  | **Site Remediation**
02 51 00  Physical Decontamination
  02 51 13  Coagulation and Flocculation Decontamination
  02 51 16  Reverse-Osmosis Decontamination
  02 51 19  Solidification and Stabilization Decontamination
  02 51 23  Mechanical Filtration Decontamination
  02 51 26  Radioactive Decontamination
  02 51 29  Surface Cleaning Decontamination
  02 51 29.13  High-Pressure Water Cleaning Decontamination
  02 51 29.16  Vacuum Sweeping Cleaning Decontamination
  02 51 33  Surface Removal Decontamination
  02 51 33.13  Surface Removal Decontamination by Grinding
  02 51 33.16  Surface Removal Decontamination by Sand Blasting
  02 51 33.19  Surface Removal Decontamination by Ultrasound

02 52 00  Chemical Decontamination
  02 52 13  Chemical Precipitation Decontamination
  02 52 16  Ion Change Decontamination
  02 52 19  Neutralization Decontamination

02 53 00  Thermal Decontamination
  02 53 13  Incineration Decontamination
  02 53 13.13  Remediation of Contaminated Soils and Sludges by Incineration
  02 53 16  Thermal Desorption Decontamination
  02 53 16.13  Remediation of Contaminated Soils by Thermal Desorption
  02 53 19  Vitrification Decontamination

02 54 00  Biological Decontamination
  02 54 13  Aerobic Processes Decontamination
  02 54 16  Anaerobic Processes Decontamination
  02 54 19  Bioremediation Decontamination
  02 54 19.13  Bioremediation Using Landfarming
  02 54 19.16  Bioremediation of Soils Using Windrow Composting
  02 54 19.19  Bioremediation Using Bacteria Injection
  02 54 23  Soil Washing through Separation/Solubilization
  02 54 26  Organic Decontamination

02 55 00  Remediation Soil Stabilization

02 56 00  Site Containment
  02 56 13  Waste Containment
  02 56 13.13  Geomembrane Waste Containment
  02 56 19  Gas Containment
  02 56 19.13  Fluid-Applied Gas Barrier

02 57 00  Sinkhole Remediation
  02 57 13  Sinkhole Remediation by Grouting
  02 57 13.13  Sinkhole Remediation by Compaction Grouting
  02 57 13.16  Sinkhole Remediation by Cap Grouting
  02 57 16  Sinkhole Remediation by Backfilling

02 58 00  Snow Control
  02 58 13  Snow Fencing
  02 58 16  Snow Avalanche Control

02 60 00  Contaminated Site Material Removal

02 61 00  Removal and Disposal of Contaminated Soils
  02 61 13  Excavation and Handling of Contaminated Material
02 61 23  Removal and Disposal of Polychlorinate Biphenyl Contaminated Soils
02 61 26  Removal and Disposal of Asbestos Contaminated Soils
02 61 29  Removal and Disposal of Organically Contaminated Soils

02 62 00  Hazardous Waste Recovery Processes
02 62 13  Air and Steam Stripping
02 62 16  Soil Vapor Extraction
02 62 19  Soil Washing and Flushing

02 65 00  Underground Storage Tank Removal

02 66 00  Landfill Construction and Storage

02 70 00  Water Remediation

02 71 00  Groundwater Treatment

02 72 00  Water Decontamination
02 72 13  Chemical Water Decontamination
02 72 16  Biological Water Decontamination
02 72 19  Electrolysis Water Decontamination

02 80 00  Facility Remediation

02 81 00  Transportation and Disposal of Hazardous Materials

02 82 00  Asbestos Remediation
02 82 13  Asbestos Abatement
02 82 13.13 Glovebag Asbestos Abatement
02 82 13.16 Precautions for Asbestos Abatement
02 82 13.19 Asbestos Floor Tile and Mastic Abatement
02 82 16  Engineering Control of Asbestos Containing Materials
02 82 33  Removal and Disposal of Asbestos Containing Materials

02 83 00  Lead Remediation
02 83 13  Lead Hazard Control Activities
02 83 19  Lead-Based Paint Remediation
02 83 19.13 Lead-Based Paint Abatement
02 83 33  Removal and Disposal of Material Containing Lead
02 83 33.13 Lead-Based Paint Removal and Disposal

02 84 00  Polychlorinate Biphenyl Remediation
02 84 16  Handling of Lighting Ballasts and Lamps Containing PCBs and Mercury
02 84 33  Removal and Disposal of Polychlorinate Biphenyls

02 85 00  Mold Remediation
02 85 13  Precautions for Mold Remediation
02 85 16  Mold Remediation Preparation and Containment
02 85 19  Mold Remediation Clearance Air Sampling
02 85 33  Removal and Disposal of Materials with Mold

02 86 00  Hazardous Waste Drum Handling
03 00 00 Concrete

03 01 00 Maintenance of Concrete
  03 01 10 Maintenance of Concrete Forming and Accessories
  03 01 20 Maintenance of Concrete Reinforcing
  03 01 23 Maintenance of Stressing Tendons
  03 01 30 Maintenance of Cast-in-Place Concrete
  03 01 30.51 Cleaning of Cast-in-Place Concrete
  03 01 30.61 Resurfacing of Cast-in-Place Concrete
  03 01 30.71 Rehabilitation of Cast-in-Place Concrete
  03 01 30.72 Strengthening of Cast-in-Place Concrete
  03 01 40 Maintenance of Precast Concrete
  03 01 40.51 Cleaning of Precast Concrete
  03 01 40.61 Resurfacing of Precast Concrete
  03 01 40.71 Rehabilitation of Precast Concrete
  03 01 40.72 Strengthening of Precast Concrete
  03 01 50 Maintenance of Cast Decks and Underlayment
  03 01 50.51 Cleaning Cast Decks and Underlayment
  03 01 50.61 Resurfacing of Cast Decks and Underlayment
  03 01 50.71 Rehabilitation of Cast Decks and Underlayment
  03 01 50.72 Strengthening of Cast Decks and Underlayment
  03 01 60 Maintenance of Grouting
  03 01 70 Maintenance of Mass Concrete
  03 01 80 Maintenance of Concrete Cutting and Boring

03 05 00 Common Work Results for Concrete

03 06 00 Schedules for Concrete
  03 06 10 Schedules for Concrete Forming and Accessories
  03 06 20 Schedules for Concrete Reinforcing
  03 06 20.13 Concrete Beam Reinforcing Schedule
  03 06 20.16 Concrete Slab Reinforcing Schedule
  03 06 30 Schedules for Cast-in-Place Concrete
  03 06 30.13 Concrete Footing Schedule
  03 06 30.16 Concrete Column Schedule
  03 06 30.19 Concrete Slab Schedule
  03 06 30.23 Concrete Shaft Schedule
  03 06 30.26 Concrete Beam Schedule
  03 06 40 Schedules for Precast Concrete
  03 06 40.13 Precast Concrete Panel Schedule
  03 06 50 Schedules for Cast Decks and Underlayment
  03 06 60 Schedules for Grouting
  03 06 70 Schedules for Mass Concrete
  03 06 80 Schedules for Concrete Cutting and Boring

03 08 00 Commissioning of Concrete

03 10 00 Concrete Forming and Accessories

03 11 00 Concrete Forming
  03 11 13 Structural Cast-in-Place Concrete Forming
  03 11 13.13 Concrete Slip Forming
  03 11 13.16 Concrete Shoring
  03 11 13.19 Falsework
  03 11 16 Architectural Cast-in Place Concrete Forming
  03 11 16.13 Concrete Form Liners
03 11 19  Insulating Concrete Forming
03 11 23  Permanent Stair Forming

03 15 00  Concrete Accessories
03 15 13  Waterstops
03 15 13.13  Non-Expanding Waterstops
03 15 13.16  Expanding Waterstops
03 15 13.19  Combination Expanding and Injection Hose Waterstops
03 15 13.21  Injection Hose Waterstops
03 15 16  Concrete Construction Joints
03 15 19  Cast-In Concrete Anchors

03 20 00  Concrete Reinforcing

03 21 00  Reinforcement Bars
03 21 11  Plain Steel Reinforcement Bars
03 21 13  Galvanized Reinforcement Steel Bars
03 21 16  Epoxy-Coated Reinforcement Steel Bars
03 21 19  Stainless Steel Reinforcement Bars
03 21 21  Composite Reinforcement Bars
03 21 21.11  Glass Fiber-Reinforced Polymer Reinforcement Bars
03 21 21.13  Organic Fiber-Reinforced Polymer Reinforcement Bars
03 21 21.16  Carbon Fiber-Reinforced Polymer Reinforcement Bars

03 22 00  Fabric and Grid Reinforcing
03 22 13  Galvanized Welded Wire Fabric Reinforcing
03 22 16  Epoxy-Coated Welded Wire Fabric Reinforcing
03 22 19  Composite Grid Reinforcing

03 23 00  Stressed Tendon Reinforcing

03 24 00  Fibrous Reinforcing

03 25 00  Composite Reinforcing
03 25 13  Glass Fiber-Reinforced Polymer Reinforcing
03 25 16  Organic Fiber-Reinforced Polymer Reinforcing
03 25 19  Carbon Fiber-Reinforced Polymer Reinforcing

03 30 00  Cast-in-Place Concrete
03 30 53  Miscellaneous Cast-in-Place Concrete

03 31 00  Structural Concrete
03 31 13  Heavyweight Structural Concrete
03 31 16  Lightweight Structural Concrete
03 31 19  Shrinkage-Compensating Structural Concrete
03 31 23  High-Performance Structural Concrete
03 31 24  Ultra High-Performance Structural Concrete
03 31 26  Self-Compacting Concrete

03 33 00  Architectural Concrete
03 33 13  Heavyweight Architectural Concrete
03 33 16  Lightweight Architectural Concrete

03 34 00  Low Density Concrete

03 35 00  Concrete Finishing
03 35 13  High-Tolerance Concrete Floor Finishing
03 35 16  Heavy-Duty Concrete Floor Finishing
03 35 19  Colored Concrete Finishing
03 35 23 Exposed Aggregate Concrete Finishing
03 35 26 Grooved Concrete Surface Finishing
03 35 29 Toolled Concrete Finishing
03 35 33 Stamped Concrete Finishing
03 35 43 Polished Concrete Finishing

03 37 00 Specialty Placed Concrete
03 37 13 Shotcrete
03 37 16 Pumped Concrete
03 37 19 Pneumatically Placed Concrete
03 37 23 Roller-Compacted Concrete
03 37 26 Underwater Placed Concrete

03 38 00 Post-Tensioned Concrete
03 38 13 Post-Tensioned Concrete Preparation
03 38 16 Unbonded Post-Tensioned Concrete
03 38 19 Bonded Post-Tensioned Concrete

03 39 00 Concrete Curing
03 39 13 Water Concrete Curing
03 39 16 Sand Concrete Curing
03 39 23 Membrane Concrete Curing
03 39 23.13 Chemical Compound Membrane Concrete Curing
03 39 23.23 Sheet Membrane Concrete Curing

03 40 00 Precast Concrete

03 41 00 Precast Structural Concrete
03 41 13 Precast Concrete Hollow Core Planks
03 41 16 Precast Concrete Slabs
03 41 23 Precast Concrete Stairs
03 41 33 Precast Structural Pretensioned Concrete
03 41 36 Precast Structural Post-Tensioned Concrete

03 45 00 Precast Architectural Concrete
03 45 13 Faced Architectural Precast Concrete
03 45 33 Precast Architectural Pretensioned Concrete
03 45 36 Precast Architectural Post-Tensioned Concrete

03 47 00 Site-Cast Concrete
03 47 13 Tilt-Up Concrete
03 47 16 Lift-Slab Concrete

03 48 00 Precast Concrete Specialties
03 48 13 Precast Concrete Bollards
03 48 16 Precast Concrete Splash Blocks
03 48 19 Precast Concrete Stair Treads
03 48 33 Precast Pre-Framed Concrete Panels
03 48 43 Precast Concrete Trim

03 49 00 Glass-Fiber-Reinforced Concrete
03 49 13 Glass-Fiber-Reinforced Concrete Column Covers
03 49 16 Glass-Fiber-Reinforced Concrete Spandrels
03 49 43 Glass-Fiber-Reinforced Concrete Trim

03 50 00 Cast Decks and Underlayment

03 51 00 Cast Roof Decks
03 51 13 Cementitious Wood Fiber Decks
03 51 16 Gypsum Concrete Roof Decks

**03 52 00 Lightweight Concrete Roof Insulation**
03 52 13 Composite Concrete Roof Insulation
03 52 16 Lightweight Insulating Concrete
03 52 16.13 Lightweight Cellular Insulating Concrete
03 52 16.16 Lightweight Aggregate Insulating Concrete

**03 53 00 Concrete Topping**
03 53 13 Emery-Aggregate Concrete Topping
03 53 16 Iron-Aggregate Concrete Topping

**03 54 00 Cast Underlayment**
03 54 13 Gypsum Cement Underlayment
03 54 16 Hydraulic Cement Underlayment

**03 60 00 Grouting**

**03 61 00 Cementitious Grouting**
03 61 13 Dry-Pack Grouting

**03 62 00 Non-Shrink Grouting**
03 62 13 Non-Metallic Non-Shrink Grouting
03 62 16 Metallic Non-Shrink Grouting

**03 63 00 Epoxy Grouting**

**03 64 00 Injection Grouting**
03 64 23 Epoxy Injection Grouting

**03 70 00 Mass Concrete**

**03 71 00 Mass Concrete for Raft Foundations**

**03 72 00 Mass Concrete for Dams**

**03 80 00 Concrete Cutting and Boring**

**03 81 00 Concrete Cutting**
03 81 13 Flat Concrete Sawing
03 81 16 Track Mounted Concrete Wall Sawing
03 81 19 Wire Concrete Wall Sawing
03 81 23 Hand Concrete Wall Sawing
03 81 26 Chain Concrete Wall Sawing

**03 82 00 Concrete Boring**
03 82 13 Concrete Core Drilling
04 00 00  Masonry
  04 01 00  Maintenance of Masonry
    04 01 20  Maintenance of Unit Masonry
    04 01 20.41  Unit Masonry Stabilization
    04 01 20.51  Unit Masonry Maintenance
    04 01 20.52  Unit Masonry Cleaning
    04 01 20.91  Unit Masonry Restoration
    04 01 20.93  Testing and Sampling Brick Units for Restoration
    04 01 40  Maintenance of Stone Assemblies
    04 01 40.51  Stone Maintenance
    04 01 40.52  Stone Cleaning
    04 01 40.91  Stone Restoration
    04 01 50  Maintenance of Refractory Masonry
    04 01 60  Maintenance of Corrosion-Resistant Masonry
    04 01 70  Maintenance of Manufactured Masonry
  04 05 00  Common Work Results for Masonry
    04 05 13  Masonry Mortaring
    04 05 13.16  Chemical-Resistant Masonry Mortaring
    04 05 13.19  Epoxy Masonry Mortaring
    04 05 13.23  Surface Bonding Masonry Mortaring
    04 05 13.26  Engineered Masonry Mortaring
    04 05 13.29  Refractory Masonry Mortaring
    04 05 13.91  Masonry Restoration Mortaring
    04 05 16  Masonry Grouting
    04 05 16.16  Chemical-Resistant Masonry Grouting
    04 05 16.26  Engineered Masonry Grouting
    04 05 19  Masonry Anchorage and Reinforcing
    04 05 19.13  Continuous Joint Reinforcing
    04 05 19.16  Masonry Anchors
    04 05 19.26  Masonry Reinforcing Bars
    04 05 19.29  Stone Anchors
    04 05 21  Masonry Strengthening
    04 05 23  Masonry Accessories
    04 05 23.13  Masonry Control and Expansion Joints
    04 05 23.16  Masonry Embedded Flashing
    04 05 23.19  Masonry Cavity Drainage, Weepholes, and Vents
  04 06 00  Schedules for Masonry
    04 06 20  Schedules for Unit Masonry
    04 06 20.13  Masonry Unit Schedule
    04 06 40  Schedules for Stone Assemblies
    04 06 50  Schedules for Refractory Masonry
    04 06 60  Schedules for Corrosion-Resistant Masonry
    04 06 70  Schedules for Manufactured Masonry
  04 08 00  Commissioning of Masonry
  04 20 00  Unit Masonry
    04 21 00  Clay Unit Masonry
      04 21 13  Brick Masonry
      04 21 13.13  Brick Veneer Masonry
      04 21 13.23  Surface-Bonded Brick Masonry
      04 21 16  Ceramic Glazed Clay Masonry
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04 43 13.16  Adhered Stone Masonry Veneer

04 50 00  **Refractory Masonry**
04 51 00  Flue Liner Masonry
04 52 00  Combustion Chamber Masonry
04 53 00  Castable Refractory Masonry
04 54 00  Refractory Brick Masonry
04 57 00  **Masonry Fireplaces**
        04 57 33  Modular Masonry Fireplaces

04 60 00  **Corrosion-Resistant Masonry**
04 61 00  Chemical-Resistant Brick Masonry
04 62 00  Vitrified Clay Liner Plate

04 70 00  **Manufactured Masonry**
04 71 00  Manufactured Brick Masonry
        04 71 13  Calcium Silicate Manufactured Brick Masonry
04 72 00  **Cast Stone Masonry**
04 73 00  Manufactured Stone Masonry
        04 73 13  Calcium Silicate Manufactured Stone Masonry
05 00 00  Metals

05 01 00  Maintenance of Metals
05 01 10  Maintenance of Structural Metal Framing
05 01 20  Maintenance of Metal Joists
05 01 30  Maintenance of Metal Decking
05 01 40  Maintenance of Cold-Formed Metal Framing
05 01 50  Maintenance of Metal Fabrications
05 01 70  Maintenance of Decorative Metal
05 01 70.91 Historic Treatment of Decorative Metal

05 05 00  Common Work Results for Metals
05 05 13  Shop-Applied Coatings for Metal
05 05 19  Post-Installed Concrete Anchors
05 05 23  Metal Fastenings
05 05 53  Security Metal Fastenings

05 06 00  Schedules for Metals
05 06 10  Schedules for Structural Metal Framing
05 06 10.13 Steel Column Schedule
05 06 10.16 Steel Beam Schedule
05 06 20  Schedules for Metal Joists
05 06 20.13 Steel Joist Schedule
05 06 30  Schedules for Metal Decking
05 06 40  Schedules for Cold-Formed Metal Framing
05 06 50  Schedules for Metal Fabrications
05 06 70  Schedules for Decorative Metal

05 08 00  Commissioning of Metals

05 10 00  Structural Metal Framing

05 12 00  Structural Steel Framing
05 12 13  Architecturally-Exposed Structural Steel Framing
05 12 16  Fabricated Fireproofed Steel Columns
05 12 19  Buckling Restrained Braces
05 12 23  Structural Steel for Buildings
05 12 33  Structural Steel for Bridges

05 13 00  Structural Stainless-Steel Framing

05 14 00  Structural Aluminum Framing
05 14 13  Architecturally-Exposed Structural Aluminum Framing

05 15 00  Wire Rope Assemblies
05 15 13  Aluminum Wire Rope Assemblies
05 15 16  Steel Wire Rope Assemblies
05 15 19  Stainless-Steel Wire Rope Assemblies

05 16 00  Structural Cabling
05 16 13  Cable Bow Truss Assemblies
05 16 33  Bridge Cabling

05 17 00  Structural Rod Assemblies

05 19 00  Tension Rod and Cable Truss Assemblies
05 19 13  FaÇade Support Truss Assemblies
05 19 19  Canopy Support Truss Assemblies
05 20 00  Metal Joists
05 21 00  Steel Joist Framing
    05 21 13  Deep Longspan Steel Joist Framing
    05 21 16  Longspan Steel Joist Framing
    05 21 19  Open Web Steel Joist Framing
    05 21 23  Steel Joist Girder Framing
05 25 00  Aluminum Joist Framing
05 30 00  Metal Decking
05 31 00  Steel Decking
    05 31 13  Steel Floor Decking
    05 31 23  Steel Roof Decking
    05 31 33  Steel Form Decking
05 33 00  Aluminum Decking
    05 33 13  Aluminum Floor Decking
    05 33 23  Aluminum Roof Decking
05 34 00  Acoustical Metal Decking
05 35 00  Raceway Decking Assemblies
05 36 00  Composite Metal Decking
    05 36 13  Composite Steel Plate and Elastomer Decking
05 40 00  Cold-Formed Metal Framing
05 41 00  Structural Metal Stud Framing
05 42 00  Cold-Formed Metal Joist Framing
    05 42 13  Cold-Formed Metal Floor Joist Framing
    05 42 23  Cold-Formed Metal Roof Joist Framing
05 43 00  Slotted Channel Framing
05 44 00  Cold-Formed Metal Trusses
    05 44 13  Cold-Formed Metal Roof Trusses
05 45 00  Metal Support Assemblies
    05 45 13  Mechanical Metal Supports
    05 45 16  Electrical Metal Supports
    05 45 19  Communications Metal Supports
    05 45 23  Healthcare Metal Supports
05 50 00  Metal Fabrications
05 51 00  Metal Stairs
    05 51 13  Metal Pan Stairs
    05 51 16  Metal Floor Plate Stairs
    05 51 19  Metal Grating Stairs
    05 51 23  Metal Fire Escapes
    05 51 33  Metal Ladders
    05 51 33.13  Vertical Metal Ladders
    05 51 33.16  Inclined Metal Ladders
    05 51 33.23  Alternating Tread Ladders
    05 51 36  Metal Walkways
    05 51 36.13  Metal Catwalks
    05 51 36.16  Metal Ramps
05 52 00  Metal Railings
   05 52 13  Pipe and Tube Railings
05 53 00  Metal Gratings
   05 53 13  Bar Gratings
   05 53 16  Plank Gratings
05 54 00  Metal Floor Plates
05 55 00  Metal Stair Treads and Nosings
   05 55 13  Metal Stair Treads
   05 55 16  Metal Stair Nosings
05 56 00  Metal Castings
05 58 00  Formed Metal Fabrications
   05 58 13  Column Covers
   05 58 16  Formed Metal Enclosures
   05 58 19  Heating/Cooling Unit Covers
   05 58 23  Formed Metal Guards
05 59 00  Metal Specialties
   05 59 13  Metal Balconies
   05 59 63  Detention Enclosures
05 70 00  Decorative Metal
05 71 00  Decorative Metal Stairs
   05 71 13  Fabricated Metal Spiral Stairs
05 73 00  Decorative Metal Railings
   05 73 13  Glazed Decorative Metal Railings
   05 73 16  Wire Rope Decorative Metal Railings
05 74 00  Decorative Metal Castings
05 75 00  Decorative Formed Metal
05 76 00  Decorative Forged Metal
06 00 00  Wood, Plastics, and Composites
06 01 00  Maintenance of Wood, Plastics, and Composites
  06 01 10  Maintenance of Rough Carpentry
  06 01 10.71 Rough Carpentry Rehabilitation
  06 01 10.91 Rough Carpentry Restoration
  06 01 10.92 Rough Carpentry Preservation
  06 01 20 Maintenance of Finish Carpentry
  06 01 20.71 Finish Carpentry Rehabilitation
  06 01 20.91 Finish Carpentry Restoration
  06 01 20.92 Finish Carpentry Preservation
  06 01 40 Maintenance of Architectural Woodwork
  06 01 40.51 Architectural Woodwork Cleaning
  06 01 40.61 Architectural Woodwork Refinishing
  06 01 40.91 Architectural Woodwork Restoration
  06 01 50 Maintenance of Structural Plastics
  06 01 60 Maintenance of Plastic Fabrications
  06 01 60.51 Plastic Cleaning
  06 01 60.71 Plastic Rehabilitation
  06 01 60.91 Plastic Restoration
  06 01 60.92 Plastic Preservation
  06 01 70 Maintenance of Structural Composites
  06 01 80 Maintenance of Composite Assemblies
  06 01 80.51 Composite Cleaning
  06 01 80.71 Composite Rehabilitation
  06 01 80.91 Composite Restoration
  06 01 80.92 Composite Preservation
06 05 00  Common Work Results for Wood, Plastics, and Composites
  06 05 23 Wood, Plastic, and Composite Fastenings
  06 05 73 Wood Treatment
  06 05 73.13 Fire-Retardant Wood Treatment
  06 05 73.33 Preservative Wood Treatment
  06 05 73.91 Long-Term Wood Treatment
  06 05 73.93 Eradication of Insects in Wood
  06 05 73.96 Antiseptic Treatment of Wood
  06 05 83 Shop-Applied Wood Coatings
06 06 00  Schedules for Wood, Plastics, and Composites
  06 06 10 Schedules for Rough Carpentry
  06 06 10.13 Nailing Schedule
  06 06 10.16 Wood Beam Schedule
  06 06 10.19 Plywood Shear Wall Schedule
  06 06 10.23 Plywood Web Joist Schedule
  06 06 10.26 Wood Truss Schedule
  06 06 20 Schedules for Finish Carpentry
  06 06 40 Schedules for Architectural Woodwork
  06 06 50 Schedules for Structural Plastics
  06 06 60 Schedules for Plastic Fabrications
  06 06 70 Schedules for Structural Composites
  06 06 80 Schedules for Composite Assemblies
06 08 00  Commissioning of Wood, Plastics, and Composites
06 10 00  Rough Carpentry
  06 10 53  Miscellaneous Rough Carpentry
  06 10 63  Exterior Rough Carpentry
06 11 00  Wood Framing
  06 11 13  Engineered Wood Products
  06 11 16  Mechanically Graded Lumber
06 12 00  Structural Panels
  06 12 13  Cementitious Reinforced Panels
  06 12 16  Stressed Skin Panels
06 13 00  Heavy Timber Construction
  06 13 13  Log Construction
  06 13 13.91 Period Horizontal Log Work
  06 13 16  Pole Construction
  06 13 23  Heavy Timber Framing
  06 13 26  Heavy Timber Trusses
  06 13 33  Heavy Timber Pier Construction
06 14 00  Treated Wood Foundations
06 15 00  Wood Decking
  06 15 13  Wood Floor Decking
  06 15 13.91 Carvel Planking
  06 15 16  Wood Roof Decking
  06 15 19  Timber Decking
  06 15 23  Laminated Wood Decking
  06 15 33  Wood Patio Decking
06 16 00  Sheathing
  06 16 13  Insulating Sheathing
  06 16 23  Subflooring
  06 16 26  Underlayment
  06 16 33  Wood Board Sheathing
  06 16 36  Wood Panel Product Sheathing
  06 16 43  Gypsum Sheathing
  06 16 53  Moisture-Resistant Sheathing Board
  06 16 63  Cementitious Sheathing
06 17 00  Shop-Fabricated Structural Wood
  06 17 13  Laminated Veneer Lumber
  06 17 23  Parallel Strand Lumber
  06 17 33  Wood I-Joists
  06 17 36  Metal-Web Wood Joists
  06 17 43  Rim Boards
  06 17 53  Shop-Fabricated Wood Trusses
06 18 00  Glued-Laminated Construction
  06 18 13  Glued-Laminated Beams
  06 18 16  Glued-Laminated Columns
06 20 00  Finish Carpentry
  06 20 13  Exterior Finish Carpentry
  06 20 23  Interior Finish Carpentry
06 22 00  Millwork
06 22 13  Standard Pattern Wood Trim
06 25 00  Prefinished Paneling
   06 25 13  Prefinished Hardboard Paneling
   06 25 16  Prefinished Plywood Paneling
06 26 00  Board Paneling
   06 26 13  Profile Board Paneling
06 40 00  Architectural Woodwork
   06 40 13  Exterior Architectural Woodwork
   06 40 23  Interior Architectural Woodwork
06 41 00  Architectural Wood Casework
   06 41 13  Wood-Veneer-Faced Architectural Cabinets
   06 41 16  Plastic-Laminate-Clad Architectural Cabinets
   06 41 93  Cabinet and Drawer Hardware
06 42 00  Wood Paneling
   06 42 13  Board Paneling
   06 42 14  Stile and Rail Wood Paneling
   06 42 16  Flush Wood Paneling
   06 42 19  Plastic-Laminate-Faced Wood Paneling
06 43 00  Wood Stairs and Railings
   06 43 13  Wood Stairs
   06 43 16  Wood Railings
06 44 00  Ornamental Woodwork
   06 44 13  Wood Turnings
   06 44 16  Wood Pilasters
   06 44 19  Wood Grilles
   06 44 23  Wood Corbels
   06 44 26  Wood Cupolas
   06 44 29  Wood Finials
   06 44 33  Wood Mantels
   06 44 36  Wood Pediment Heads
   06 44 39  Wood Posts and Columns
06 46 00  Wood Trim
   06 46 13  Wood Door and Window Casings
   06 46 16  Wood Aprons
   06 46 19  Wood Base and Shoe Moldings
   06 46 23  Wood Chair Rails
   06 46 26  Wood Cornices
   06 46 29  Wood Fasciae and Soffits
   06 46 33  Wood Stops, Stools, and Sills
   06 46 91  Splicing of Wooden Components
06 48 00  Wood Frames
   06 48 13  Exterior Wood Door Frames
   06 48 16  Interior Wood Door Frames
   06 48 19  Ornamental Wood Frames
   06 48 23  Stick-Built Wood Windows
   06 48 26  Wood-Veneer Frames
06 49 00  Wood Screens and Exterior Wood Shutters
   06 49 13  Wood Screens
06 49 16  Exterior Wood Blinds
06 49 19  Exterior Wood Shutters
06 50 00  Structural Plastics
06 51 00  Structural Plastic Shapes and Plates
  06 51 13  Plastic Lumber
06 52 00  Plastic Structural Assemblies
06 53 00  Plastic Decking
  06 53 13  Solid Plastic Decking
06 60 00  Plastic Fabrications
06 61 00  Simulated Stone Fabrications
  06 61 13  Cultured Marble Fabrications
  06 61 16  Solid Surfacing Fabrications
  06 61 19  Quartz Surfacing Fabrications
06 63 00  Plastic Railings
06 64 00  Plastic Paneling
  06 64 13  Plastic Lattice Paneling
06 65 00  Plastic Simulated Wood Trim
06 66 00  Custom Ornamental Simulated Woodwork
06 70 00  Structural Composites
06 71 00  Structural Composite Shapes and Plates
  06 71 13  Composite Lumber
06 72 00  Composite Structural Assemblies
  06 72 13  Composite Joist Assemblies
06 73 00  Composite Decking
  06 73 13  Composite Structural Decking
06 74 00  Composite Gratings
  06 74 13  Fiberglass Reinforced Gratings
06 80 00  Composite Fabrications
06 81 00  Composite Railings
  06 81 13  Glass-Fiber-Reinforced Plastic Railings
06 83 00  Composite Paneling
  06 83 13  Resin Composite Paneling
  06 83 16  Fiberglass Reinforced Paneling
07 00 00  Thermal and Moisture Protection

07 01 00  Operation and Maintenance of Thermal and Moisture Protection

07 01 10  Maintenance of Dampproofing and Waterproofing
07 01 10.81  Waterproofing Replacement
07 01 20  Maintenance of Thermal Protection
07 01 30  Maintenance of Steep Slope Roofing
07 01 40  Maintenance of Roofing and Siding Panels
07 01 50  Maintenance of Membrane Roofing
07 01 50.13  Roof Moisture Survey
07 01 50.16  Roof Maintenance Program
07 01 50.19  Preparation for Re-Roofing
07 01 50.23  Roof Removal
07 01 50.61  Roof Re-Coating
07 01 50.81  Roof Replacement
07 01 50.91  Roofing Restoration
07 01 60  Maintenance of Flashing and Sheet Metal
07 01 60.71  Flashing and Sheet Metal Rehabilitation
07 01 60.91  Flashing and Sheet Metal Restoration
07 01 60.92  Flashing and Sheet Metal Preservation
07 01 70  Operation and Maintenance of Roof Specialties and Accessories
07 01 80  Maintenance of Fire and Smoke Protection
07 01 90  Maintenance of Joint Protection
07 01 90.71  Joint Sealant Rehabilitation
07 01 90.81  Joint Sealant Replacement

07 05 00  Common Work Results for Thermal and Moisture Protection

07 05 53  Fire and Smoke Assembly Identification

07 06 00  Schedules for Thermal and Moisture Protection

07 06 10  Schedules for Dampproofing and Waterproofing
07 06 20  Schedules for Thermal Protection
07 06 30  Schedules for Steep Slope Roofing
07 06 40  Schedules for Roofing and Siding Panels
07 06 50  Schedules for Membrane Roofing
07 06 60  Schedules for Flashing and Sheet Metal
07 06 70  Schedules for Roof Specialties and Accessories
07 06 80  Schedules for Fire and Smoke Protection
07 06 80.13  Fireproofing Schedule
07 06 80.16  Firestopping Schedule
07 06 90  Schedules for Joint Protection
07 06 90.13  Joint Sealant Schedule

07 08 00  Commissioning of Thermal and Moisture Protection

07 10 00  Dampproofing and Waterproofing

07 11 00  Dampproofing

07 11 13  Bituminous Dampproofing
07 11 16  Cementitious Dampproofing
07 11 19  Sheet Dampproofing

07 12 00  Built-Up Bituminous Waterproofing

07 12 13  Built-Up Asphalt Waterproofing
07 12 16  Built-Up Coal Tar Waterproofing

07 13 00  Sheet Waterproofing
  07 13 13  Bituminous Sheet Waterproofing
  07 13 26  Self-Adhering Sheet Waterproofing
  07 13 52  Modified Bituminous Sheet Waterproofing
  07 13 53  Elastomeric Sheet Waterproofing
  07 13 54  Thermoplastic Sheet Waterproofing

07 14 00  Fluid-Applied Waterproofing
  07 14 13  Hot Fluid-Applied Rubberized Asphalt Waterproofing
  07 14 14  Hot Fluid-Applied Polyurea Waterproofing
  07 14 16  Cold Fluid-Applied Waterproofing

07 15 00  Sheet Metal Waterproofing
  07 15 13  Sheet Lead Waterproofing

07 16 00  Cementitious and Reactive Waterproofing
  07 16 13  Polymer Modified Cement Waterproofing
  07 16 16  Crystalline Waterproofing
  07 16 19  Metal Oxide Waterproofing

07 17 00  Bentonite Waterproofing
  07 17 13  Bentonite Panel Waterproofing
  07 17 16  Bentonite Composite Sheet Waterproofing

07 18 00  Traffic Coatings
  07 18 13  Pedestrian Traffic Coatings
  07 18 16  Vehicular Traffic Coatings

07 19 00  Water Repellents
  07 19 13  Acrylic Water Repellents
  07 19 16  Silane Water Repellents
  07 19 19  Silicone Water Repellents
  07 19 23  Siloxane Water Repellents
  07 19 26  Stearate Water Repellents

07 20 00  Thermal Protection

07 21 00  Thermal Insulation
  07 21 13  Board Insulation
  07 21 13.13  Foam Board Insulation
  07 21 13.16  Fibrous Board Insulation
  07 21 13.19  Mineral Board Insulation
  07 21 16  Blanket Insulation
  07 21 19  Foamed-In-Place Insulation
  07 21 23  Loose-Fill Insulation
  07 21 26  Blown Insulation
  07 21 29  Sprayed Insulation
  07 21 53  Reflective Insulation

07 22 00  Roof and Deck Insulation
  07 22 13  Asphaltic Perlite Concrete Deck
  07 22 16  Roof Board Insulation

07 24 00  Exterior Insulation and Finish Systems
  07 24 13  Polymer-Based Exterior Insulation and Finish System
  07 24 16  Polymer-Modified Exterior Insulation and Finish System
  07 24 19  Water-Drainage Exterior Insulation and Finish System
07 24 23 Direct-Applied Finish Systems

07 25 00 **Weather Barriers**

07 26 00 **Vapor Retarders**
- 07 26 13 Above-Grade Vapor Retarders
- 07 26 16 Below-Grade Vapor Retarders
- 07 26 23 Below-Grade Gas Retarders

07 27 00 **Air Barriers**
- 07 27 13 Modified Bituminous Sheet Air Barriers
- 07 27 16 Sheet Metal Membrane Air Barriers
- 07 27 19 Plastic Sheet Air Barriers
- 07 27 23 Board Product Air Barriers
- 07 27 26 Fluid-Applied Membrane Air Barriers
- 07 27 36 Sprayed Foam Air Barrier

07 30 00 **Steep Slope Roofing**
- 07 30 91 Canvas Roofing

07 31 00 **Shingles and Shakes**
- 07 31 13 Asphalt Shingles
- 07 31 13.13 Fiberglass-Reinforced Asphalt Shingles
- 07 31 16 Metal Shingles
- 07 31 19 Mineral-Fiber Cement Shingles
- 07 31 23 Porcelain Enamel Shingles
- 07 31 26 Slate Shingles
- 07 31 29 Wood Shingles and Shakes
- 07 31 29.13 Wood Shingles
- 07 31 29.16 Wood Shakes
- 07 31 33 Composite Rubber Shingles
- 07 31 53 Plastic Shakes

07 32 00 **Roof Tiles**
- 07 32 13 Clay Roof Tiles
- 07 32 14 Ceramic and Porcelain Roof Tiles
- 07 32 16 Concrete Roof Tiles
- 07 32 19 Metal Roof Tiles
- 07 32 23 Mineral-Fiber Cement Roof Tiles
- 07 32 26 Plastic Roof Tiles
- 07 32 29 Rubber Tiles/Panels

07 33 00 **Natural Roof Coverings**
- 07 33 13 Sod Roofing
- 07 33 16 Thatched Roofing
- 07 33 63 Vegetated Roofing

07 40 00 **Roofing and Siding Panels**

07 41 00 **Roof Panels**
- 07 41 13 Metal Roof Panels
- 07 41 23 Wood Roof Panels
- 07 41 33 Plastic Roof Panels
- 07 41 43 Composite Roof Panels
- 07 41 63 Fabricated Roof Panel Assemblies

07 42 00 **Wall Panels**
07 42 13    Metal Wall Panels
07 42 13.13  Formed Metal Wall Panels
07 42 13.16  Metal Plate Wall Panels
07 42 13.19  Insulated Metal Wall Panels
07 42 13.23  Metal Composite Material Wall Panels
07 42 23    Wood Wall Panels
07 42 29    Terracotta Wall Panels
07 42 33    Plastic Wall Panels
07 42 43    Composite Wall Panels
07 42 63    Fabricated Wall Panel Assemblies
07 42 93    Soffit Panels

07 44 00    Faced Panels
07 44 13    Aggregate Coated Panels
07 44 16    Porcelain Enameled Faced Panels
07 44 19    Tile-Faced Panels
07 44 23    Ceramic-Tile-Faced Panels
07 44 33    Metal Faced Panels
07 44 53    Glass-Fiber-Reinforced Cemnetitious Panels
07 44 56    Mineral-Fiber-Reinforced Cemnetitious Panels
07 44 63    Fabricated Faced Panel Assemblies

07 46 00    Siding
07 46 16    Aluminum Siding
07 46 19    Steel Siding
07 46 23    Wood Siding
07 46 26    Hardboard Siding
07 46 29    Plywood Siding
07 46 33    Plastic Siding
07 46 43    Composition Siding
07 46 46    Fiber-Cement Siding
07 46 63    Fabricated Panel Assemblies with Siding

07 50 00    Membrane Roofing
07 51 00    Built-Up Bituminous Roofing
07 51 13    Built-Up Asphalt Roofing
07 51 13.13 Cold-Applied Built-Up Asphalt Roofing
07 51 16    Built-Up Coal Tar Roofing
07 51 23    Glass-Fiber-Reinforced Asphalt Emulsion Roofing

07 52 00    Modified Bituminous Membrane Roofing
07 52 13    Atactic-Polypropylene-Modified Bituminous Membrane Roofing
07 52 13.11 Cold Adhesive Applied Atactic-Polypropylene-Modified Bituminous Membrane Roofing
07 52 13.13 Torch-Applied Atactic-Polypropylene-Modified Bituminous Membrane Roofing
07 52 13.14 Mechanically Fastened Atactic-Polypropylene-Modified Bituminous Membrane Roofing
07 52 16    Styrene-Butadiene-Styrene Modified Bituminous Membrane Roofing
07 52 16.11 Cold Adhesive Styrene-Butadiene-Styrene Modified Bituminous Membrane Roofing
07 52 16.12 Hot-Mopped Styrene-Butadiene-Styrene Modified Bituminous Membrane Roofing
07 52 16.13 Torch-Applied Styrene-Butadiene-Styrene Modified Bituminous Membrane Roofing
07 52 16.14 Mechanically Fastened Styrene-Butadiene-Styrene Modified Bituminous Membrane Roofing

07 53 00    Elastomeric Membrane Roofing
07 53 13 Chlorinated-Polyethylene Roofing
07 53 16 Chlorosulfonate-Polyethylene Roofing
07 53 23 Ethylene-Propylene-Diene-Monomer Roofing
07 53 29 Polyisobutylene Roofing

07 54 00 Thermoplastic Membrane Roofing
  07 54 13 Copolymer-Alloy Roofing
  07 54 16 Ethylene-Interpolymer Roofing
  07 54 19 Polyvinyl-Chloride Roofing
  07 54 23 Thermoplastic-Polyolefin Roofing
  07 54 26 Nitrile-Butadiene-Polymer Roofing

07 55 00 Protected Membrane Roofing
  07 55 51 Built-Up Bituminous Protected Membrane Roofing
  07 55 52 Modified Bituminous Protected Membrane Roofing
  07 55 53 Elastomeric Protected Membrane Roofing
  07 55 54 Thermoplastic Protected Membrane Roofing
  07 55 56 Fluid-Applied Protected Membrane Roofing
  07 55 56.13 Hot-Applied Rubberized Asphalt Protected Membrane Roofing
  07 55 63 Vegetated Protected Membrane Roofing

07 56 00 Fluid-Applied Roofing

07 57 00 Coated Foamed Roofing
  07 57 13 Sprayed Polyurethane Foam Roofing

07 58 00 Roll Roofing

07 60 00 Flashing and Sheet Metal

07 61 00 Sheet Metal Roofing
  07 61 13 Standing Seam Sheet Metal Roofing
  07 61 16 Batten Seam Sheet Metal Roofing
  07 61 19 Flat Seam Sheet Metal Roofing

07 62 00 Sheet Metal Flashing and Trim

07 63 00 Sheet Metal Roofing Specialties

07 64 00 Sheet Metal Wall Cladding
  07 64 13 Standing Seam Sheet Metal Wall Cladding
  07 64 16 Batten Seam Sheet Metal Wall Cladding
  07 64 19 Flat Seam Sheet Metal Wall Cladding

07 65 00 Flexible Flashing
  07 65 13 Laminated Sheet Flashing
  07 65 16 Modified Bituminous Sheet Flashing
  07 65 19 Plastic Sheet Flashing
  07 65 23 Rubber Sheet Flashing
  07 65 26 Self-Adhering Sheet Flashing

07 70 00 Roof and Wall Specialties and Accessories

07 71 00 Roof Specialties
  07 71 13 Manufactured Copings
  07 71 16 Manufactured Counterflashing Systems
  07 71 19 Manufactured Gravel Stops and Fasciae
  07 71 23 Manufactured Gutters and Downspouts
  07 71 23.13 Gutter Debris Guards
  07 71 26 Reglets
07 71 29 Manufactured Roof Expansion Joints
07 71 33 Manufactured Scuppers

07 72 00 Roof Accessories
07 72 13 Manufactured Curbs
07 72 23 Relief Vents
07 72 26 Ridge Vents
07 72 33 Roof Hatches
07 72 36 Smoke Vents
07 72 43 Roof Walk Boards
07 72 46 Roof Walkways
07 72 53 Snow Guards
07 72 63 Waste Containment Assemblies

07 76 00 Roof Pavers
07 76 13 Roof Ballast Pavers
07 76 16 Roof Decking Pavers

07 77 00 Wall Specialties

07 80 00 Fire and Smoke Protection

07 81 00 Applied Fireproofing
07 81 13 Cement Aggregate Fireproofing
07 81 16 Cementitious Fireproofing
07 81 19 Foamed Magnesium-Oxychloride Fireproofing
07 81 23 Intumescent Fireproofing
07 81 26 Magnesium Cement Fireproofing
07 81 29 Mineral-Fiber Cementitious Fireproofing
07 81 33 Mineral-Fiber Fireproofing

07 82 00 Board Fireproofing
07 82 13 Calcium-Silicate Board Fireproofing
07 82 16 Slag-Fiber Board Fireproofing

07 84 00 Firestopping
07 84 13 Penetration Firestopping
07 84 13.13 Penetration Firestopping Mortars
07 84 13.16 Penetration Firestopping Devices
07 84 43 Joint Firestopping
07 84 53 Building Perimeter Firestopping

07 86 00 Smoke Seals

07 87 00 Smoke Containment Barriers

07 90 00 Joint Protection

07 91 00 Preformed Joint Seals
07 91 13 Compression Seals
07 91 16 Joint Gaskets
07 91 23 Backer Rods
07 91 26 Joint Fillers

07 92 00 Joint Sealants
07 92 13 Elastomeric Joint Sealants
07 92 16 Rigid Joint Sealants
07 92 19 Acoustical Joint Sealants

07 95 00 Expansion Control
07 95 13  Expansion Joint Cover Assemblies
07 95 53  Joint Slide Bearings
07 95 63  Bridge Expansion Joint Cover Assemblies
08 00 00 Openings
08 01 00 Operation and Maintenance of Openings
  08 01 10 Operation and Maintenance of Doors and Frames
  08 01 11 Operation and Maintenance of Metal Doors and Frames
  08 01 14 Operation and Maintenance of Wood Doors
  08 01 15 Operation and Maintenance of Plastic Doors
  08 01 16 Operation and Maintenance of Composite Doors
  08 01 17 Operation and Maintenance of Integrated Door Opening Assemblies
  08 01 30 Operation and Maintenance of Specialty Doors and Frames
  08 01 32 Operation and Maintenance of Sliding Glass Doors
  08 01 33 Operation and Maintenance of Coiling Doors and Grilles
  08 01 34 Operation and Maintenance of Special Function Doors
  08 01 35 Operation and Maintenance of Folding Doors and Grilles
  08 01 36 Operation and Maintenance of Panel Doors
  08 01 39 Operation and Maintenance of Traffic Doors
  08 01 40 Operation and Maintenance of Entrances, Storefronts, and Curtain Walls
  08 01 41 Operation and Maintenance of Entrances
  08 01 42 Operation and Maintenance of Storefronts
  08 01 44 Operation and Maintenance of Curtain Walls
  08 01 50 Operation and Maintenance of Windows
  08 01 51 Operation and Maintenance of Metal Windows
  08 01 52 Operation and Maintenance of Wood Windows
        08 01 52.61 Wood Window Repairs
        08 01 52.71 Wood Window Rehabilitation
        08 01 52.81 Wood Window Replacement
        08 01 52.91 Wood Window Restoration
        08 01 52.93 Historic Treatment of Wood Windows
  08 01 53 Operation and Maintenance of Plastic Windows
  08 01 54 Operation and Maintenance of Composite Windows
  08 01 56 Operation and Maintenance of Special Function Windows
  08 01 60 Operation and Maintenance of Skylights and Roof Windows
        08 01 61 Operation and Maintenance of Roof Windows
        08 01 62 Operation and Maintenance of Unit Skylights
  08 01 63 Operation and Maintenance of Metal-Framed Skylights
  08 01 64 Operation and Maintenance of Plastic-Framed Skylights
  08 01 70 Operation and Maintenance of Hardware
  08 01 71 Operation and Maintenance of Door Hardware
  08 01 74 Operation and Maintenance of Access Control Hardware
  08 01 75 Operation and Maintenance of Window Hardware
  08 01 80 Maintenance of Glazing
  08 01 81 Maintenance of Glass Glazing
  08 01 84 Maintenance of Plastic Glazing
  08 01 88 Maintenance of Special Function Glazing
  08 01 90 Operation and Maintenance of Louvers and Vents
  08 01 91 Operation and Maintenance of Louvers
  08 01 92 Operation and Maintenance of Louvered Equipment Enclosures
  08 01 95 Operation and Maintenance of Vents

08 05 00 Common Work Results for Openings
08 06 00 Schedules for Openings
  08 06 10 Door Schedule
08 06 10.13 Door Type Schedule
08 06 10.16 Frame Type Schedule
08 06 40 Schedules for Entrances, Storefronts, and Curtain Walls
08 06 41 Entrance Schedule
08 06 42 Storefront Schedule
08 06 50 Window Schedule
08 06 60 Skylight Schedule
08 06 70 Hardware Schedule
08 06 71 Door Hardware Schedule
08 06 80 Glazing Schedule
08 06 90 Louver and Vent Schedule

08 08 00 Commissioning of Openings

08 10 00 Doors and Frames

08 11 00 Metal Doors and Frames
  08 11 13 Hollow Metal Doors and Frames
  08 11 13.13 Standard Hollow Metal Doors and Frames
  08 11 13.16 Custom Hollow Metal Doors and Frames
  08 11 16 Aluminum Doors and Frames
  08 11 19 Stainless-Steel Doors and Frames
  08 11 23 Bronze Doors and Frames
  08 11 63 Metal Screen and Storm Doors and Frames
  08 11 63.13 Steel Screen and Storm Doors and Frames
  08 11 63.23 Aluminum Screen and Storm Doors and Frames
  08 11 66 Metal Screen Doors and Frames
  08 11 66.13 Steel Screen Doors and Frames
  08 11 66.23 Aluminum Screen Doors and Frames
  08 11 69 Metal Storm Doors and Frames
  08 11 69.13 Steel Storm Doors and Frames
  08 11 69.23 Aluminum Storm Doors and Frames
  08 11 73 Sliding Metal Fire Doors
  08 11 74 Sliding Metal Grilles

08 12 00 Metal Frames
  08 12 13 Hollow Metal Frames
  08 12 13.13 Standard Hollow Metal Frames
  08 12 13.53 Custom Hollow Metal Frames
  08 12 16 Aluminum Frames
  08 12 19 Stainless-Steel Frames
  08 12 23 Bronze Frames

08 13 00 Metal Doors
  08 13 13 Hollow Metal Doors
  08 13 13.13 Standard Hollow Metal Doors
  08 13 13.53 Custom Hollow Metal Doors
  08 13 16 Aluminum Doors
  08 13 19 Stainless-Steel Doors
  08 13 23 Bronze Doors
  08 13 73 Sliding Metal Doors
  08 13 76 Bifolding Metal Doors

08 14 00 Wood Doors
  08 14 13 Carved Wood Doors
  08 14 16 Flush Wood Doors
08 14 23  Clad Wood Doors
08 14 23.13  Metal-Faced Wood Doors
08 14 23.16  Plastic-Laminate-Faced Wood Doors
08 14 23.19  Molded-Hardboard-Faced Wood Doors
08 14 29   Prefinished Wood Doors
08 14 33   Stile and Rail Wood Doors
08 14 66   Wood Screen Doors
08 14 69   Wood Storm Doors
08 14 73   Sliding Wood Doors
08 14 76   Bifolding Wood Doors
08 15 00   Plastic Doors
08 15 13   Laminated Plastic Doors
08 15 16   Solid Plastic Doors
08 15 66   Plastic Screen Doors
08 15 69   Plastic Storm Doors
08 15 73   Sliding Plastic Doors
08 15 76   Bifolding Plastic Doors
08 16 00   Composite Doors
08 16 13   Fiberglass Doors
08 16 73   Sliding Composite Doors
08 16 76   Bifolding Composite Doors
08 17 00   Integrated Door Opening Assemblies
08 17 13   Integrated Metal Door Opening Assemblies
08 17 23   Integrated Wood Door Opening Assemblies
08 17 33   Integrated Plastic Door Opening Assemblies
08 17 43   Integrated Composite Door Opening Assemblies
08 30 00   Specialty Doors and Frames
08 31 00   Access Doors and Panels
08 31 13   Access Doors and Frames
08 31 13.53 Security Access Doors and Frames
08 31 16   Access Panels and Frames
08 32 00   Sliding Glass Doors
08 32 13   Sliding Aluminum-Framed Glass Doors
08 32 16   Sliding Plastic-Framed Glass Doors
08 32 19   Sliding Wood-Framed Glass Doors
08 33 00   Coiling Doors and Grilles
08 33 13   Coiling Counter Doors
08 33 16   Coiling Counter Grilles
08 33 23   Overhead Coiling Doors
08 33 23.13 Overhead Rapid Coiling Doors
08 33 26   Overhead Coiling Grilles
08 33 33   Side Coiling Doors
08 33 36   Side Coiling Grilles
08 33 43   Overhead Coiling Smoke Curtains
08 33 44   Overhead Coiling Fire Curtains
08 34 00   Special Function Doors
08 34 13   Cold Storage Doors
08 34 16   Hangar Doors
08 34 19   Industrial Doors
08 34 33 Lightproof Doors
08 34 36 Darkroom Doors
08 34 46 Radio-Frequency-Interference Shielding Doors
08 34 49 Radiation Shielding Doors and Frames
08 34 49.13 Neutron Shielding Doors and Frames
08 34 53 Security Doors and Frames
08 34 56 Security Gates
08 34 58 File Room Doors and Frames
08 34 59 Vault Doors and Day Gates
08 34 63 Detention Doors and Frames
08 34 63.13 Steel Detention Doors and Frames
08 34 63.16 Steel Plate Detention Doors and Frames
08 34 63.33 Detention Door Frame Protection
08 34 73 Sound Control Door Assemblies

08 35 00 Folding Doors and Grilles
08 35 13 Folding Doors
08 35 13.13 Accordion Folding Doors
08 35 13.23 Accordion Folding Fire Doors
08 35 13.33 Panel Folding Doors
08 35 16 Folding Grilles
08 35 16.13 Accordion Folding Grilles

08 36 00 Panel Doors
08 36 13 Sectional Doors
08 36 16 Single-Panel Doors
08 36 19 Multi-Leaf Vertical Lift Doors
08 36 23 Telescoping Vertical Lift Doors

08 38 00 Traffic Doors
08 38 13 Flexible Strip Doors
08 38 16 Flexible Traffic Doors
08 38 19 Rigid Traffic Doors

08 39 00 Pressure-Resistant Doors
08 39 13 Airtight Doors
08 39 19 Watertight Doors
08 39 53 Blast-Resistant Doors

08 40 00 Entrances, Storefronts, and Curtain Walls

08 41 00 Entrances and Storefronts
08 41 13 Aluminum-Framed Entrances and Storefronts
08 41 13.13 Fire-Rated Aluminum-Framed Entrances and Storefronts
08 41 16 Bronze-Framed Entrances and Storefronts
08 41 19 Stainless-Steel-Framed Entrances and Storefronts
08 41 23 Steel-Framed Entrances and Storefronts
08 41 26 All-Glass Entrances and Storefronts

08 42 00 Entrances
08 42 26 All-Glass Entrances
08 42 29 Automatic Entrances
08 42 29.13 Folding Automatic Entrances
08 42 29.23 Sliding Automatic Entrances
08 42 29.33 Swinging Automatic Entrances
08 42 33 Revolving Door Entrances
08 42 33.13 Security Revolving Door Entrances
<table>
<thead>
<tr>
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<tbody>
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</tr>
<tr>
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<td>Intensive Care Unit/Critical Care Unit Entrances</td>
</tr>
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<td>All-Glass Storefronts</td>
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</tr>
</tbody>
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08 54 69 Fiberglass Storm Windows
08 55 00 Pressure-Resistant Windows
08 56 00 Special Function Windows
  08 56 19 Pass Windows
  08 56 46 Radio-Frequency-Interference Shielding Windows
  08 56 49 Radiation Shielding Windows
  08 56 53 Security Windows
  08 56 56 Security Window Screens
  08 56 59 Service and Teller Window Units
  08 56 63 Detention Windows
  08 56 66 Detention Window Screens
  08 56 73 Sound Control Windows
  08 56 88 Interior Insulating Windows

08 60 00 Roof Windows and Skylights
08 61 00 Roof Windows
  08 61 13 Metal Roof Windows
  08 61 16 Wood Roof Windows
08 62 00 Unit Skylights
  08 62 13 Domed Unit Skylights
  08 62 16 Pyramidal Unit Skylights
  08 62 19 Vaulted Unit Skylights
  08 62 23 Tubular Skylights
08 63 00 Metal-Framed Skylights
  08 63 13 Domed Metal-Framed Skylights
  08 63 16 Pyramidal Metal-Framed Skylights
  08 63 19 Vaulted Metal-Framed Skylights
  08 63 23 Ridge Metal-Framed Skylights
  08 63 53 Motorized Metal-Framed Skylights
08 64 00 Plastic-Framed Skylights
08 67 00 Skylight Protection and Screens

08 70 00 Hardware
08 71 00 Door Hardware
  08 71 13 Automatic Door Operators
  08 71 53 Security Door Hardware
  08 71 63 Detention Door Hardware
08 74 00 Access Control Hardware
  08 74 13 Card Key Access Control Hardware
  08 74 16 Keypad Access Control Hardware
  08 74 19 Biometric Identity Access Control Hardware
08 75 00 Window Hardware
  08 75 13 Automatic Window Equipment
  08 75 16 Window Operators
08 78 00 Special Function Hardware
08 79 00 Hardware Accessories
  08 79 13 Key Storage Equipment

08 80 00 Glazing
<table>
<thead>
<tr>
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<tr>
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<tr>
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<td><strong>Glazing Surface Films</strong></td>
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<td>08 87 13</td>
<td>Solar Control Films</td>
</tr>
<tr>
<td>08 87 23</td>
<td>Safety and Security Films</td>
</tr>
<tr>
<td>08 87 23.13</td>
<td>Safety Films</td>
</tr>
<tr>
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<td>Security Films</td>
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<td>Decorative Films</td>
</tr>
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<td><strong>Special Function Glazing</strong></td>
</tr>
<tr>
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<td>Hurricane-Resistant Glazing</td>
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<td>Cable Suspended Glazing</td>
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<td>Transparent Mirrored Glazing</td>
</tr>
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<td>Switchable Glass</td>
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<td>Electronically Controlled Switchable Glass</td>
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<td>08 88 39</td>
<td>Pressure-Resistant Glazing</td>
</tr>
<tr>
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<td>Radiation-Resistant Glazing</td>
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<td>Security Glazing</td>
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<td>Ballistics-Resistant Glazing</td>
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<td><strong>Louvers and Vents</strong></td>
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<tr>
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<td><strong>Louvers</strong></td>
</tr>
<tr>
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<td>Motorized Wall Louvers</td>
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<tr>
<td>08 91 16</td>
<td>Operable Wall Louvers</td>
</tr>
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<td>Fixed Louvers</td>
</tr>
<tr>
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<td>Door Louvers</td>
</tr>
<tr>
<td>08 92 00</td>
<td><strong>Louvered Equipment Enclosures</strong></td>
</tr>
<tr>
<td>08 95 00</td>
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</tr>
<tr>
<td>08 95 13</td>
<td>Soffit Vents</td>
</tr>
<tr>
<td>08 95 16</td>
<td>Wall Vents</td>
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<tr>
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09 00 00  Finishes

09 01 00  Maintenance of Finishes
  09 01 20  Maintenance of Plaster and Gypsum Board
  09 01 20.91  Plaster Restoration
  09 01 30  Maintenance of Tiling
  09 01 30.91  Tile Restoration
  09 01 50  Maintenance of Ceilings
  09 01 50.91  Ceiling Restoration
  09 01 60  Maintenance of Flooring
  09 01 60.91  Flooring Restoration
  09 01 70  Maintenance of Wall Finishes
  09 01 70.91  Wall Finish Restoration
  09 01 80  Maintenance of Acoustic Treatment
  09 01 90  Maintenance of Painting and Coating
  09 01 90.51  Paint Cleaning
  09 01 90.52  Maintenance Repainting
  09 01 90.53  Maintenance Coatings
  09 01 90.61  Repainting
  09 01 90.91  Paint Restoration
  09 01 90.92  Coating Restoration
  09 01 90.93  Paint Preservation

09 05 00  Common Work Results for Finishes
  09 05 13  Common Finishes
  09 05 61  Common Work Results for Flooring Preparation

09 06 00  Schedules for Finishes

09 06 00.13  Room Finish Schedule
  09 06 20  Schedules for Plaster and Gypsum Board
  09 06 30  Schedules for Tiling
  09 06 50  Schedules for Ceilings
  09 06 60  Schedules for Flooring
  09 06 70  Schedules for Wall Finishes
  09 06 80  Schedules for Acoustical Treatment
  09 06 90  Schedules for Painting and Coating
  09 06 90.13  Paint Schedule

09 08 00  Commissioning of Finishes

09 20 00  Plaster and Gypsum Board

09 21 00  Plaster and Gypsum Board Assemblies
  09 21 13  Plaster Assemblies
  09 21 16  Gypsum Board Assemblies
  09 21 16.23  Gypsum Board Shaft Wall Assemblies
  09 21 16.33  Gypsum Board Area Separation Wall Assemblies

09 22 00  Supports for Plaster and Gypsum Board
  09 22 13  Metal Furring
  09 22 13.13  Metal Channel Furring
  09 22 13.23  Resilient Channel Furring
  09 22 16  Non-Structural Metal Framing
  09 22 16.13  Non-Structural Metal Stud Framing
  09 22 26  Suspension Systems
  09 22 26.23  Metal Suspension Systems
<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>Lath</td>
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<td>Veneer Plaster Base</td>
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</tr>
<tr>
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</tr>
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</tr>
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<td>Natural Clay Plastering</td>
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</tr>
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</tr>
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</tr>
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48
<table>
<thead>
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<td>Ceilings</td>
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<td>Acoustical Ceilings</td>
</tr>
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<td>Acoustical Panel Ceilings</td>
</tr>
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<td>Acoustical Fabric-Faced Panel Ceilings</td>
</tr>
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<td>Acoustical Tile Ceilings</td>
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<td>Acoustical Wood Ceilings</td>
</tr>
<tr>
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</tr>
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<td>Acoustical Snap-in Metal Pan Ceilings</td>
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<td>Direct-Applied Acoustical Ceilings</td>
</tr>
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<td>Acoustical Ceiling Suspension Assemblies</td>
</tr>
<tr>
<td>09 53 13</td>
<td>Curved Profile Ceiling Suspension Assemblies</td>
</tr>
<tr>
<td>09 53 23</td>
<td>Metal Acoustical Ceiling Suspension Assemblies</td>
</tr>
<tr>
<td>09 53 33</td>
<td>Plastic Acoustical Ceiling Suspension Assemblies</td>
</tr>
<tr>
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<td>Specialty Ceilings</td>
</tr>
</tbody>
</table>
09 54 13  Open Metal Mesh Ceilings
09 54 16  Luminous Ceilings
09 54 19  Mirror Panel Ceilings
09 54 23  Linear Metal Ceilings
09 54 26  Suspended Wood Ceilings
09 54 33  Decorative Panel Ceilings
09 54 36  Suspended Decorative Grids
09 54 43  Stretched-Fabric Ceiling Systems
09 54 46  Fabric-Wrapped Ceiling Panels
09 54 53  Fiberglass Reinforced Panel Ceilings

09 56 00  Textured Ceilings
  09 56 13  Gypsum-Panel Textured Ceilings
  09 56 16  Metal-Panel Textured Ceilings

09 57 00  Special Function Ceilings
  09 57 53  Security Ceiling Assemblies

09 58 00  Integrated Ceiling Assemblies

09 60 00  Flooring
  09 60 13  Acoustic Underlayment

09 61 00  Flooring Treatment
  09 61 13  Slip-Resistant Flooring Treatment
  09 61 19  Concrete Staining
  09 61 36  Static-Resistant Flooring Treatment

09 62 00  Specialty Flooring
  09 62 13  Asphaltic Plank Flooring
  09 62 19  Laminate Flooring
  09 62 23  Bamboo Flooring
  09 62 26  Leather Flooring
  09 62 29  Cork Flooring
  09 62 35  Acid-Resistant Flooring
  09 62 48  Acoustic Flooring
  09 62 53  Synthetic Turf Flooring
  09 62 63  Metal Flooring
  09 62 63.13  Aluminum Flooring
  09 62 63.16  Stainless Steel Flooring
  09 62 83  Structural Glass Flooring

09 63 00  Masonry Flooring
  09 63 13  Brick Flooring
  09 63 13.35  Chemical-Resistant Brick Flooring
  09 63 40  Stone Flooring
  09 63 43  Composition Stone Flooring

09 64 00  Wood Flooring
  09 64 16  Wood Block Flooring
  09 64 19  Wood Composition Flooring
  09 64 23  Wood Parquet Flooring
  09 64 23.13  Acrylic-Impregnated Wood Parquet Flooring
  09 64 29  Wood Strip and Plank Flooring
  09 64 33  Laminated Wood Flooring
  09 64 53  Resilient Wood Flooring Assemblies
  09 64 66  Wood Athletic Flooring
09 65 00  Resilient Flooring
09 65 13  Resilient Base and Accessories
09 65 13.13  Resilient Base
09 65 13.23  Resilient Stair Treads and Risers
09 65 13.26  Resilient Stair Nosings
09 65 13.33  Resilient Accessories
09 65 13.36  Resilient Carpet Transitions
09 65 16  Resilient Sheet Flooring
09 65 16.23  Vinyl Sheet Flooring
09 65 16.33  Rubber Sheet Flooring
09 65 16.43  PVC-Free Sheet Flooring
09 65 19  Resilient Tile Flooring
09 65 33  Conductive Resilient Flooring
09 65 36  Static-Control Resilient Flooring
09 65 36.13  Static-Dissipative Resilient Flooring
09 65 36.16  Static-Resistant Resilient Flooring
09 65 43  Linoleum Flooring
09 65 66  Resilient Athletic Flooring

09 66 00  Terrazzo Flooring
09 66 13  Portland Cement Terrazzo Flooring
09 66 13.13  Sand Cushion Terrazzo Flooring
09 66 13.16  Monolithic Terrazzo Flooring
09 66 13.19  Bonded Terrazzo Flooring
09 66 13.23  Palladina Terrazzo Flooring
09 66 13.26  Rustic Terrazzo Flooring
09 66 13.33  Structural Terrazzo Flooring
09 66 16  Terrazzo Floor Tile
09 66 16.13  Portland Cement Terrazzo Floor Tile
09 66 16.16  Plastic-Matrix Terrazzo Floor Tile
09 66 23  Resinous Matrix Terrazzo Flooring
09 66 23.13  Polyacrylate Modified Cementitious Terrazzo Flooring
09 66 23.16  Epoxy-Resin Terrazzo Flooring
09 66 23.19  Polyester-Resin Terrazzo Flooring
09 66 33  Conductive Terrazzo Flooring
09 66 33.13  Conductive Epoxy-Resin Terrazzo
09 66 33.16  Conductive Polyester-Resin Terrazzo Flooring
09 66 33.19  Conductive Plastic-Matrix Terrazzo Flooring

09 67 00  Fluid-Applied Flooring
09 67 13  Elastomeric Liquid Flooring
09 67 13.33  Conductive Elastomeric Liquid Flooring
09 67 16  Epoxy-Marble Chip Flooring
09 67 19  Magnesium-Oxychloride Flooring
09 67 23  Resinous Flooring
09 67 26  Quartz Flooring
09 67 66  Fluid-Applied Athletic Flooring

09 68 00  Carpeting
09 68 13  Tile Carpeting
09 68 16  Sheet Carpeting

09 69 00  Access Flooring
09 69 13  Rigid-Grid Access Flooring
09 69 16  Snap-on Stringer Access Flooring
09 69 19  Stringerless Access Flooring
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>09 69 33</td>
<td>Low-Profile Fixed Height Access Flooring</td>
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<td>Access Flooring Accessories</td>
</tr>
<tr>
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<td>Access Flooring Stairs and Stringers</td>
</tr>
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<td><strong>Wall Finishes</strong></td>
</tr>
<tr>
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</tr>
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</tr>
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<td>Wallpapering</td>
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<tr>
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<td>Fabric-Wrapped Panels</td>
</tr>
<tr>
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<td>Vegetated Wall Systems</td>
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<td>Fixed Sound-Absorptive Panels</td>
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<td>Fixed Sound-Reflective Panels</td>
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09 93 00  Staining and Transparent Finishing
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  09 93 13.13  Exterior Staining
  09 93 13.53  Exterior Finishing
  09 93 23  Interior Staining and Finishing
  09 93 23.13  Interior Staining
  09 93 23.53  Interior Finishing

09 94 00  Decorative Finishing
  09 94 13  Textured Finishing
  09 94 16  Faux Finishing
  09 94 19  Multicolor Interior Finishing

09 96 00  High-Performance Coatings
  09 96 13  Abrasion-Resistant Coatings
  09 96 23  Graffiti-Resistant Coatings
  09 96 26  Marine Coatings
  09 96 33  High-Temperature-Resistant Coatings
  09 96 35  Chemical-Resistant Coatings
  09 96 43  Fire-Retardant Coatings
  09 96 46  Intumescent Painting
  09 96 53  Elastomeric Coatings
  09 96 56  Epoxy Coatings
  09 96 59  High-Build Glazed Coatings
  09 96 63  Textured Plastic Coatings
  09 96 66  Aggregate Wall Coatings

09 97 00  Special Coatings
  09 97 13  Steel Coatings
  09 97 13.13  Interior Steel Coatings
  09 97 13.23  Exterior Steel Coatings
  09 97 23  Concrete and Masonry Coatings
  09 97 26  Cementitious Coatings
  09 97 26.13  Interior Cementitious Coatings
  09 97 26.23  Exterior Cementitious Coatings
10 00 00  Specialties
  10 01 00  Operation and Maintenance of Specialties
    10 01 10  Operation and Maintenance of Information Specialties
    10 01 20  Operation and Maintenance of Interior Specialties
    10 01 30  Operation and Maintenance of Fireplaces and Stoves
    10 01 40  Operation and Maintenance of Safety Specialties
    10 01 50  Operation and Maintenance of Storage Specialties
    10 01 70  Operation and Maintenance of Exterior Specialties
    10 01 80  Operation and Maintenance of Other Specialties
  10 05 00  Common Work Results for Specialties
  10 06 00  Schedules for Specialties
    10 06 10  Schedules for Information Specialties
    10 06 10.13  Exterior Signage Schedule
    10 06 10.16  Interior Signage Schedule
    10 06 20  Schedules for Interior Specialties
    10 06 20.13  Toilet, Bath, and Laundry Accessory Schedule
    10 06 30  Schedules for Fireplaces and Stoves
    10 06 40  Schedules for Safety Specialties
    10 06 50  Schedules for Storage Specialties
    10 06 70  Schedules for Exterior Specialties
    10 06 80  Schedules for Other Specialties
  10 08 00  Commissioning of Specialties
  10 10 00  Information Specialties
  10 11 00  Visual Display Units
    10 11 13  Chalkboards
    10 11 13.13  Fixed Chalkboards
    10 11 13.23  Modular-Support-Mounted Chalkboards
    10 11 13.33  Rail-Mounted Chalkboards
    10 11 13.43  Portable Chalkboards
    10 11 16  Markerboards
    10 11 16.13  Fixed Markerboards
    10 11 16.23  Modular-Support-Mounted Markerboards
    10 11 16.33  Rail-Mounted Markerboards
    10 11 16.43  Portable Markerboards
    10 11 16.53  Electronic Markerboards
    10 11 23  Tackboards
    10 11 23.13  Fixed Tackboards
    10 11 23.23  Modular-Support-Mounted Tackboards
    10 11 23.33  Rail-Mounted Tackboards
    10 11 23.43  Portable Tackboards
    10 11 33  Sliding Visual Display Units
    10 11 33.13  Horizontal-Sliding Visual Display Units
    10 11 33.23  Vertical-Sliding Visual Display Units
    10 11 36  Visual Display Conference Units
    10 11 39  Visual Display Rails
    10 11 43  Visual Display Wall Panels
    10 11 46  Visual Display Fabrics
  10 12 00  Display Cases
  10 13 00  Directories
10 13 13 Electronic Directories
10 13 23 Illuminated Directories

10 14 00 Signage
10 14 16 Plaques
10 14 19 Dimensional Letter Signage
10 14 23 Panel Signage
10 14 23.13 Engraved Panel Signage
10 14 26 Post and Panel/Pylon Signage
10 14 33 Illuminated Panel Signage
10 14 43 Photoluminescent Signage
10 14 53 Traffic Signage
10 14 53.13 Transportation Reference Markers
10 14 63 Electronic Message Signage
10 14 64 Audible Signage
10 14 66 Floating Signage
10 14 67 Tactile Signage

10 17 00 Telephone Specialties
10 17 13 Telephone Directory Units
10 17 16 Telephone Enclosures
10 17 16.13 Telephone Stalls
10 17 16.16 Telephone Alcoves
10 17 19 Telephone Shelving

10 18 00 Informational Kiosks

10 20 00 Interior Specialties

10 21 00 Compartments and Cubicles
10 21 13 Toilet Compartments
10 21 13.13 Metal Toilet Compartments
10 21 13.16 Plastic-Laminate-Clad Toilet Compartments
10 21 13.19 Plastic Toilet Compartments
10 21 13.23 Particleboard Toilet Compartments
10 21 13.40 Stone Toilet Compartments
10 21 16 Shower and Dressing Compartments
10 21 16.13 Metal Shower and Dressing Compartments
10 21 16.16 Plastic-Laminate-Clad Shower and Dressing Compartments
10 21 16.19 Plastic Shower and Dressing Compartments
10 21 16.23 Particleboard Shower and Dressing Compartments
10 21 16.40 Stone Shower and Dressing Compartments
10 21 23 Cubicle Curtains and Track
10 21 23.13 Cubicle Curtains
10 21 23.16 Cubicle Track and Hardware

10 22 00 Partitions
10 22 13 Wire Mesh Partitions
10 22 14 Expanded Metal Partitions
10 22 16 Folding Gates
10 22 19 Demountable Partitions
10 22 19.13 Demountable Metal Partitions
10 22 19.23 Demountable Wood Partitions
10 22 19.33 Demountable Plastic Partitions
10 22 19.43 Demountable Composite Partitions
10 22 19.53 Demountable Gypsum Partitions
10 22 23 Portable Partitions, Screens, and Panels
<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
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<td>Wall Screens</td>
</tr>
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<td>Movable Panel Systems</td>
</tr>
<tr>
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<td>Accordion Folding Partitions</td>
</tr>
<tr>
<td>10 22 36</td>
<td>Coiling Partitions</td>
</tr>
<tr>
<td>10 22 39</td>
<td>Folding Panel Partitions</td>
</tr>
<tr>
<td>10 22 43</td>
<td>Sliding Partitions</td>
</tr>
<tr>
<td><strong>10 25 00</strong></td>
<td><strong>Service Walls</strong></td>
</tr>
<tr>
<td>10 25 13</td>
<td>Patient Bed Service Walls</td>
</tr>
<tr>
<td>10 25 16</td>
<td>Modular Service Walls</td>
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<td><strong>Wall and Door Protection</strong></td>
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<td>10 26 13</td>
<td>Corner Guards</td>
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<td>Bumper Guards</td>
</tr>
<tr>
<td>10 26 16.13</td>
<td>Bumper Rails</td>
</tr>
<tr>
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<td>Protective Corridor Handrails</td>
</tr>
<tr>
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<td>Protective Wall Covering</td>
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<td>Impact Resistant Wall Protection</td>
</tr>
<tr>
<td>10 26 23.16</td>
<td>Fiberglass Reinforced Protective Wall Covering</td>
</tr>
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<td>10 26 33</td>
<td>Door and Frame Protection</td>
</tr>
<tr>
<td>10 26 41</td>
<td>Bullet Resistant Panels</td>
</tr>
<tr>
<td><strong>10 28 00</strong></td>
<td><strong>Toilet, Bath, and Laundry Accessories</strong></td>
</tr>
<tr>
<td>10 28 13</td>
<td>Toilet Accessories</td>
</tr>
<tr>
<td>10 28 13.13</td>
<td>Commercial Toilet Accessories</td>
</tr>
<tr>
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<td>Healthcare Toilet Accessories</td>
</tr>
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<td>10 28 13.53</td>
<td>Security Toilet Accessories</td>
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</tr>
<tr>
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<td>Bath Accessories</td>
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<td>Residential Bath Accessories</td>
</tr>
<tr>
<td>10 28 19</td>
<td>Tub and Shower Doors</td>
</tr>
<tr>
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<td>Shower Doors</td>
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<tr>
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<td>Tub Doors</td>
</tr>
<tr>
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<td>Laundry Accessories</td>
</tr>
<tr>
<td>10 28 23.13</td>
<td>Built-In Ironing Boards</td>
</tr>
<tr>
<td>10 28 23.16</td>
<td>Clothes Drying Racks</td>
</tr>
<tr>
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<td><strong>Fireplaces and Stoves</strong></td>
</tr>
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</tr>
<tr>
<td>10 31 13</td>
<td>Manufactured Fireplace Chimneys</td>
</tr>
<tr>
<td>10 31 16</td>
<td>Manufactured Fireplace Forms</td>
</tr>
<tr>
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<td><strong>Fireplace Specialties</strong></td>
</tr>
<tr>
<td>10 32 13</td>
<td>Fireplace Dampers</td>
</tr>
<tr>
<td>10 32 16</td>
<td>Fireplace Inserts</td>
</tr>
<tr>
<td>10 32 19</td>
<td>Fireplace Screens</td>
</tr>
<tr>
<td>10 32 23</td>
<td>Fireplace Doors</td>
</tr>
<tr>
<td>10 32 26</td>
<td>Fireplace Water Heaters</td>
</tr>
<tr>
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<td><strong>Stoves</strong></td>
</tr>
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<td>10 35 13</td>
<td>Heating Stoves</td>
</tr>
<tr>
<td>10 35 23</td>
<td>Cooking Stoves</td>
</tr>
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</tr>
<tr>
<td><strong>10 41 00</strong></td>
<td><strong>Emergency Access and Information Cabinets</strong></td>
</tr>
<tr>
<td>10 41 13</td>
<td>Fire Department Plan Cabinets</td>
</tr>
</tbody>
</table>
10 41 16 Emergency Key Cabinets

10 43 00 Emergency Aid Specialties
10 43 13 Defibrillator Cabinets
10 43 16 First Aid Cabinets
10 43 21 Accessibility Evacuation Chairs
10 43 31 Respiration Equipment
10 43 33 Breathing Air Replenishment Systems

10 44 00 Fire Protection Specialties
10 44 13 Fire Protection Cabinets
10 44 13.53 Security Fire Extinguisher Cabinets
10 44 16 Fire Extinguishers
10 44 16.13 Portable Fire Extinguishers
10 44 16.16 Wheeled Fire Extinguisher Units
10 44 19 Fire Blankets
10 44 43 Fire Extinguisher Accessories

10 50 00 Storage Specialties

10 50 00 Storage Specialties

10 50 00 Storage Specialties

10 50 00 Storage Specialties

10 51 00 Lockers
10 51 13 Metal Lockers
10 51 16 Wood Lockers
10 51 23 Plastic-Laminate-Clad Lockers
10 51 26 Plastic Lockers
10 51 26.13 Recycled Plastic Lockers
10 51 29 Phenolic Lockers
10 51 33 Glass Lockers
10 51 43 Wire Mesh Storage Lockers
10 51 53 Locker Room Benches

10 55 00 Postal Specialties
10 55 13 Central Mail Delivery Boxes
10 55 13.13 Cluster Box Units
10 55 16 Mail Collection Boxes
10 55 19 Receiving Boxes
10 55 23 Mail Boxes
10 55 23.13 Apartment Mail Boxes
10 55 23.16 Mail Box Directories
10 55 23.19 Mail Box Key Keepers
10 55 26 Parcel Lockers
10 55 33 Data Distribution Boxes
10 55 36 Package Depositories
10 55 91 Mail Chutes

10 56 00 Storage Assemblies
10 56 13 Metal Storage Shelving
10 56 13.13 End-Panel-Support Metal Storage Shelving
10 56 13.16 Post-and-Shelf Metal Storage Shelving
10 56 13.19 Post-and-Beam Metal Storage Shelving
10 56 13.23 Cantilever Metal Storage Shelving
10 56 16 Fabricated Wood Storage Shelving
10 56 17 Wall-Mounted Standards and Shelving
10 56 19 Plastic Storage Shelving
10 56 19.13 Recycled Plastic Storage Shelving
10 56 23 Wire Storage Shelving
10 56 26 Mobile Storage Shelving
10 56 26.13 Manual Mobile Storage Shelving
10 56 26.23 Motorized Mobile Storage Shelving
10 56 29 Storage Racks
10 56 29.13 Flow Storage Racks
10 56 29.16 Pallet Storage Racks
10 56 29.19 Movable-Shelf Storage Racks
10 56 29.23 Stacker Storage Racks
10 56 29.26 Cantilever Storage Racks
10 56 29.29 Drive-In Storage Racks
10 56 29.33 Drive-Through Storage Racks
10 56 29.43 Wine Storage Racks
10 56 33 Mercantile Storage Assemblies

10 57 00 Wardrobe and Closet Specialties
10 57 13 Hat and Coat Racks
10 57 16 Boot Racks
10 57 23 Closet and Utility Shelving
10 57 23.13 Wire Closet and Utility Shelving
10 57 23.16 Plastic-Laminate-Clad Closet and Utility Shelving
10 57 23.19 Wood Closet and Utility Shelving
10 57 33 Closet and Utility Shelving Hardware

10 70 00 Exterior Specialties

10 71 00 Exterior Protection
10 71 13 Exterior Sun Control Devices
10 71 13.13 Exterior Shutters
10 71 13.19 Rolling Exterior Shutters
10 71 13.23 Coiling Exterior Shutters
10 71 13.26 Decorative Exterior Shutters
10 71 13.29 Side-Hinged Exterior Shutters
10 71 13.43 Fixed Sun Screens
10 71 13.53 Exterior Daylighting Devices
10 71 16 Storm Panels
10 71 16.13 Demountable Storm Panels
10 71 16.16 Movable Storm Panels
10 71 19 Flood Barriers
10 71 19.16 Removable Flood Barriers

10 73 00 Protective Covers
10 73 13 Awnings
10 73 16 Canopies
10 73 23 Car Shelters
10 73 26 Walkway Coverings
10 73 33 Marquees
10 73 43 Transportation Stop Shelters

10 74 00 Manufactured Exterior Specialties
10 74 13 Exterior Clocks
10 74 23 Cupolas
10 74 26 Spires
10 74 29 Steeples
10 74 33 Weather vanes
10 74 43 Below-Grade Egress Assemblies
10 74 46 Window Wells
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<td>Rodent Control Devices</td>
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<td>Exterior Grilles and Screens</td>
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<td>Interior Grilles and Screens</td>
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<td>Flags and Banners</td>
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<td>Flags</td>
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<td>Gas Lighting</td>
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<td>Exterior Gas Lighting</td>
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<td>10 84 16</td>
<td>Interior Gas Lighting</td>
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<td>Security Mirrors and Domes</td>
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<td>Scales</td>
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</tbody>
</table>
11 00 00 Equipment
11 01 00 Operation and Maintenance of Equipment
  11 01 10 Operation and Maintenance of Vehicle and Pedestrian Equipment
  11 01 15 Operation and Maintenance of Security, Bank, and Detention Equipment
  11 01 20 Operation and Maintenance of Commercial Equipment
  11 01 30 Operation and Maintenance of Residential Equipment
  11 01 40 Operation and Maintenance of Foodservice Equipment
  11 01 50 Operation and Maintenance of Educational and Scientific Equipment
  11 01 56 Operation and Maintenance of Observatory Equipment
  11 01 60 Operation and Maintenance of Entertainment Equipment
  11 01 65 Operation and Maintenance of Athletic and Recreational Equipment
  11 01 70 Operation and Maintenance of Healthcare Equipment
  11 01 80 Operation and Maintenance of Collection and Disposal Equipment
  11 01 90 Operation and Maintenance of Other Equipment

11 05 00 Common Work Results for Equipment
  11 05 13 Common Motor Requirements for Equipment

11 06 00 Schedules for Equipment
  11 06 10 Schedules for Vehicle and Pedestrian Equipment
  11 06 15 Schedules for Security, Bank, and Detention Equipment
  11 06 15.13 Teller and Service Equipment Schedule
  11 06 20 Schedules for Commercial Equipment
  11 06 30 Schedules for Residential Equipment
  11 06 40 Schedules for Foodservice Equipment
  11 06 40.13 Foodservice Equipment Schedule
  11 06 50 Schedules for Educational and Scientific Equipment
  11 06 60 Schedules for Entertainment Equipment
  11 06 65 Schedules for Athletic and Recreational Equipment
  11 06 70 Schedules for Healthcare Equipment
  11 06 70.13 Healthcare Equipment Schedule
  11 06 80 Schedules for Collection and Disposal Equipment
  11 06 90 Schedules for Other Equipment

11 08 00 Commissioning of Equipment

11 10 00 Vehicle and Pedestrian Equipment
11 11 00 Vehicle Service Equipment
  11 11 13 Compressed-Air Vehicle Service Equipment
  11 11 19 Vehicle Lubrication Equipment
  11 11 23 Tire-Changing Equipment
  11 11 26 Vehicle-Washing Equipment

11 12 00 Parking Control Equipment
  11 12 13 Parking Key and Card Control Units
  11 12 16 Parking Ticket Dispensers
  11 12 23 Parking Meters
  11 12 26 Parking Fee Collection Equipment
  11 12 26.13 Parking Fee Coin Collection Equipment
  11 12 33 Parking Gates
  11 12 33.13 Lift Arm Parking Gates
  11 12 33.16 Sliding Parking Gates
  11 12 33.19 Swinging Parking Gates
11 13 00  Loading Dock Equipment
  11 13 13  Loading Dock Bumpers
  11 13 16  Loading Dock Seals and Shelters
  11 13 16.13 Loading Dock Seals
  11 13 16.23 Loading Dock Shelters
  11 13 16.33 Loading Dock Rail Shelters
  11 13 19  Stationary Loading Dock Equipment
  11 13 19.13 Loading Dock Levelers
  11 13 19.23 Stationary Loading Dock Lifts
  11 13 19.26 Loading Dock Truck Lifts
  11 13 19.33 Loading Dock Truck Restraints
  11 13 23  Portable Dock Equipment
  11 13 23.13 Portable Dock Lifts
  11 13 23.16 Portable Dock Ramps
  11 13 23.19 Portable Dock Bridges
  11 13 23.23 Portable Dock Platforms
  11 13 26  Loading Dock Lights

11 14 00  Pedestrian Control Equipment
  11 14 13  Pedestrian Gates
  11 14 13.13 Portable Posts and Railings
  11 14 13.16 Rotary Gates
  11 14 13.19 Turnstiles
  11 14 16  Money-Changing Equipment
  11 14 16.19 Money-Changing Machines
  11 14 26  Pedestrian Fare Collection Equipment
  11 14 26.13 Pedestrian Coin Fare Collection Equipment
  11 14 43  Pedestrian Detection Equipment
  11 14 43.13 Electronic Detection and Counting Systems
  11 14 53  Pedestrian Security Equipment

11 15 00  Security, Detention, and Banking Equipment

11 16 00  Vault Equipment
  11 16 13  Safe Deposit Boxes
  11 16 16  Safes
  11 16 23  Vault Ventilators
  11 16 33  Time Capsules

11 17 00  Teller and Service Equipment
  11 17 13  Teller Equipment Systems
  11 17 16  Automatic Banking Systems
  11 17 23  Money Handling Equipment
  11 17 26  Money Depositories
  11 17 33  Money Cart Pass-Through
  11 17 36  Package Transfer Units

11 18 00  Security Equipment
  11 18 13  Deal Drawers
  11 18 16  Gun Ports
  11 18 23  Valuable Material Storage

11 19 00  Detention Equipment
  11 19 13  Detention Pass-Through Doors
11 19 16  Detention Gun Lockers

11 20 00  Commercial Equipment

11 21 00  Mercantile and Service Equipment
11 21 13  Cash Registers and Checking Equipment
11 21 23  Vending Equipment
11 21 23.13 Vending Machines
11 21 33  Checkroom Equipment
11 21 43  Weighing and Wrapping Equipment
11 21 53  Barber and Beauty Shop Equipment

11 22 00  Refrigerated Display Equipment

11 23 00  Commercial Laundry and Dry Cleaning Equipment
11 23 13  Dry Cleaning Equipment
11 23 16  Drying and Conditioning Equipment
11 23 19  Finishing Equipment
11 23 23  Commercial Ironing Equipment
11 23 26  Commercial Washers and Extractors
11 23 33  Coin-Operated Laundry Equipment
11 23 43  Hanging Garment Conveyors

11 24 00  Maintenance Equipment
11 24 13  Floor and Wall Cleaning Equipment
11 24 16  Housekeeping Carts
11 24 19  Vacuum Cleaning Systems
11 24 23  Façade Access Equipment
11 24 23.13 Window Washing Systems
11 24 29  Facility Fall Protection

11 25 00  Hospitality Equipment
11 25 13  Registration Equipment

11 26 00  Unit Kitchens
11 26 13  Metal Unit Kitchens
11 26 16  Wood Unit Kitchens
11 26 19  Plastic-Laminate-Clad Unit Kitchens

11 27 00  Photographic Processing Equipment
11 27 13  Darkroom Processing Equipment
11 27 16  Film Transfer Cabinets

11 28 00  Office Equipment
11 28 13  Computers
11 28 16  Printers
11 28 19  Self-Contained Facsimile Machines
11 28 23  Copiers

11 29 00  Postal, Packaging, and Shipping Equipment
11 29 23  Packaging Equipment
11 29 33  Shipping Equipment
11 29 55  Postal Equipment

11 30 00  Residential Equipment

11 31 00  Residential Appliances
11 31 13  Residential Kitchen Appliances
11 31 23  Residential Laundry Appliances
11 33 00  Retractable Stairs
11 34 00  Residential Ceiling Fans
11 40 00  Foodservice Equipment
11 41 00  Foodservice Storage Equipment
  11 41 13  Refrigerated Food Storage Cases
  11 41 23  Walk-In Coolers
  11 41 26  Walk-In Freezers
  11 41 33  Foodservice Shelving
11 42 00  Food Preparation Equipment
  11 42 13  Food Preparation Appliances
  11 42 16  Food Preparation Surfaces
11 43 00  Food Delivery Carts and Conveyors
  11 43 13  Food Delivery Carts
  11 43 16  Food Delivery Conveyors
11 44 00  Food Cooking Equipment
  11 44 13  Commercial Ranges
  11 44 16  Commercial Ovens
11 46 00  Food Dispensing Equipment
  11 46 13  Bar Equipment
  11 46 16  Service Line Equipment
  11 46 19  Soda Fountain Equipment
  11 46 23  Coffee and Espresso Equipment
11 47 00  Ice Machines
11 48 00  Cleaning and Disposal Equipment
  11 48 13  Commercial Dishwashers
11 50 00  Educational and Scientific Equipment
11 51 00  Library Equipment
  11 51 13  Automated Book Storage and Retrieval Systems
  11 51 16  Book Depositories
  11 51 19  Book Theft Protection Equipment
  11 51 23  Library Stack Systems
  11 51 23.13  Metal Library Shelving
11 52 00  Audio-Visual Equipment
  11 52 13  Projection Screens
  11 52 13.13  Fixed Projection Screens
  11 52 13.16  Portable Projection Screens
  11 52 13.19  Rear Projection Screens
  11 52 16  Projectors
  11 52 16.13  Movie Projectors
  11 52 16.16  Slide Projectors
  11 52 16.19  Overhead Projectors
  11 52 16.23  Opaque Projectors
  11 52 16.26  Video Projectors
  11 52 19  Players and Recorders
  11 52 23  Audio-Visual Equipment Supports
11 53 00  Laboratory Equipment
  11 53 13  Laboratory Fume Hoods
11 53 13.13  Recirculating Laboratory Fume Hoods
11 53 16  Laboratory Incubators
11 53 17  Laboratory Equipment Washers
11 53 19  Laboratory Sterilizers
11 53 23  Laboratory Refrigerators
11 53 26  Laboratory Freezers
11 53 29  Laboratory Controlled-Environment Cabinets
11 53 33  Emergency Safety Appliances
11 53 43  Service Fittings and Accessories
11 53 53  Biological Safety Cabinets

11 55 00  Planetarium Equipment
  11 55 13  Planetarium Projectors
  11 55 16  Planetarium Pendulums

11 56 00  Observatory Equipment
  11 56 13  Telescopes
  11 56 16  Telescope Mounts
  11 56 19  Telescope Drive Mechanisms
  11 56 23  Telescope Domes

11 57 00  Vocational Shop Equipment
11 59 00  Exhibit Equipment

11 60 00  Entertainment Equipment
11 61 00  Broadcast, Theater, and Stage Equipment
  11 61 13  Acoustical Shells
  11 61 23  Folding and Portable Stages
  11 61 33  Rigging Systems and Controls
  11 61 33.11  Lighting Rigging Systems
  11 61 33.16  Scenery Rigging Systems
  11 61 33.19  Curtain Systems
  11 61 43  Stage Curtains

11 62 00  Musical Equipment
  11 62 13  Bells
  11 62 16  Carillons
  11 62 19  Organs

11 65 00  Athletic and Recreational Equipment

11 66 00  Athletic Equipment
  11 66 13  Exercise Equipment
  11 66 23  Gymnasium Equipment
  11 66 23.13  Basketball Equipment
  11 66 23.23  Volleyball Equipment
  11 66 23.33  Interior Tennis Equipment
  11 66 23.43  Interior Track and Field Equipment
  11 66 23.53  Wall Padding
  11 66 23.56  Mat Storage
  11 66 43  Interior Scoreboards
  11 66 53  Gymnasium Dividers
  11 66 53.13  Batting/Golf Cages

11 67 00  Recreational Equipment
  11 67 13  Bowling Alley Equipment
11 67 23  Shooting Range Equipment
11 67 33  Climbing Walls
11 67 43  Table Games Equipment
11 67 43.13 Pool Tables
11 67 43.23 Ping-Pong Tables
11 67 53  Game Room Equipment
11 67 53.13 Video Games
11 67 53.23 Pinball Machines

11 68 00  Play Field Equipment and Structures
11 68 13  Playground Equipment
11 68 16  Play Structures
11 68 23  Exterior Court Athletic Equipment
11 68 23.13 Exterior Basketball Equipment
11 68 23.23 Exterior Volleyball Equipment
11 68 23.33 Tennis Equipment
11 68 33  Athletic Field Equipment
11 68 33.13 Football Field Equipment
11 68 33.23 Soccer and Field Hockey Equipment
11 68 33.33 Baseball Field Equipment
11 68 33.43 Track and Field Equipment
11 68 43  Exterior Scoreboards

11 70 00  Healthcare Equipment
11 71 00  Medical Sterilizing Equipment
11 72 00  Examination and Treatment Equipment
11 72 13  Examination Equipment
11 72 53  Treatment Equipment

11 73 00  Patient Care Equipment
11 74 00  Dental Equipment
11 75 00  Optical Equipment
11 76 00  Operating Room Equipment
11 77 00  Radiology Equipment
11 78 00  Mortuary Equipment
11 78 13  Mortuary Refrigerators
11 78 16  Crematorium Equipment
11 78 19  Mortuary Lifts

11 79 00  Therapy Equipment
11 80 00  Collection and Disposal Equipment
11 82 00  Solid Waste Handling Equipment
11 82 13  Solid Waste Bins
11 82 19  Packaged Incinerators
11 82 23  Recycling Equipment
11 82 26  Facility Waste Compactors
11 82 29  Composting Equipment
11 82 33  Facility Waste Shredders
11 82 36  Facility Waste Balers

11 90 00  Other Equipment
11 91 00  Religious Equipment
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12 00 00 Furnishings
  12 01 00 Operation and Maintenance of Furnishings
    12 01 10 Operation and Maintenance of Art
    12 01 20 Operation and Maintenance of Window Treatments
    12 01 30 Operation and Maintenance of Casework
    12 01 40 Operation and Maintenance of Furnishings and Accessories
    12 01 50 Operation and Maintenance of Furniture
    12 01 60 Operation and Maintenance of Multiple Seating
    12 01 90 Operation and Maintenance of Other Furnishings
  12 05 00 Common Work Results for Furnishings
    12 05 13 Fabrics
  12 06 00 Schedules for Furnishings
    12 06 10 Schedules for Art
    12 06 20 Schedules for Window Treatments
    12 06 20.13 Window Treatment Schedule
    12 06 30 Schedules for Casework
    12 06 30.13 Manufactured Casework Schedule
    12 06 40 Schedules for Furnishings and Accessories
    12 06 40.13 Furnishings Schedule
    12 06 50 Schedules for Furniture
    12 06 60 Schedules for Multiple Seating
    12 06 90 Schedules for Other Furnishings
  12 08 00 Commissioning of Furnishings
  12 10 00 Art
    12 11 00 Murals
      12 11 13 Photo Murals
      12 11 16 Sculptured Brick Panels
      12 11 23 Brick Murals
      12 11 26 Ceramic Tile Murals
      12 11 33 Trompe l'oeil
    12 12 00 Wall Decorations
      12 12 13 Commissioned Paintings
      12 12 16 Framed Paintings
      12 12 19 Framed Prints
      12 12 23 Tapestries
      12 12 26 Wall Hangings
    12 14 00 Sculptures
      12 14 13 Carved Sculpture
      12 14 16 Cast Sculpture
      12 14 19 Constructed Sculpture
      12 14 23 Relief Art
    12 17 00 Art Glass
      12 17 13 Etched Glass
      12 17 16 Stained Glass
  12 19 00 Religious Art
  12 20 00 Window Treatments

67
12 21 00 Window Blinds
  12 21 13 Horizontal Louver Blinds
  12 21 13.13 Metal Horizontal Louver Blinds
  12 21 13.23 Wood Horizontal Louver Blinds
  12 21 13.33 Plastic Horizontal Louver Blinds
  12 21 16 Vertical Louver Blinds
  12 21 16.13 Metal Vertical Louver Blinds
  12 21 16.23 Wood Vertical Louver Blinds
  12 21 16.33 Plastic Vertical Louver Blinds
  12 21 23 Roll-Down Blinds
  12 21 26 Black-Out Blinds

12 22 00 Curtains and Drapes
  12 22 13 Draperies
  12 22 16 Drapery Track and Accessories

12 23 00 Interior Shutters
  12 23 13 Wood Interior Shutters

12 24 00 Window Shades
  12 24 13 Roller Window Shades
  12 24 16 Pleated Window Shades
  12 24 16.13 Z-Pleated Window Shades
  12 24 16.16 Cellular Shades
  12 24 16.19 Roman Shades

12 25 00 Window Treatment Operating Hardware
  12 25 09 Window Treatment Control System
  12 25 13 Motorized Drapery Rods

12 26 00 Interior Daylighting Devices

12 30 00 Casework

12 31 00 Manufactured Metal Casework
  12 31 16 Manufactured Metal Sandwich Panel Casework

12 32 00 Manufactured Wood Casework
  12 32 13 Manufactured Wood-Veneer-Faced Casework
  12 32 16 Manufactured Plastic-Laminate-Clad Casework

12 34 00 Manufactured Plastic Casework
  12 34 16 Manufactured Solid-Plastic Casework

12 35 00 Specialty Casework
  12 35 17 Bank Casework
  12 35 25 Hospitality Casework
  12 35 30 Residential Casework
  12 35 30.13 Kitchen Casework
  12 35 30.23 Bathroom Casework
  12 35 30.43 Dormitory Casework
  12 35 33 Utility Room Casework
  12 35 36 Mailroom Casework
  12 35 39 Commercial Kitchen Casework
  12 35 50 Educational/Library Casework
  12 35 50.13 Educational Casework
  12 35 50.53 Library Casework
  12 35 50.56 Built-In Study Carrels
  12 35 53 Laboratory Casework
12 35 53.13 Metal Laboratory Casework
12 35 53.16 Plastic-Laminate-Clad Laboratory Casework
12 35 53.19 Wood Laboratory Casework
12 35 53.23 Solid-Plastic Laboratory Casework
12 35 59 Display Casework
12 35 70 Healthcare Casework
12 35 70.13 Hospital Casework
12 35 70.16 Nurse Station Casework
12 35 70.19 Exam Room Casework
12 35 70.74 Dental Casework
12 35 83 Performing Arts Casework
12 35 91 Religious Casework

12 36 00 Countertops
12 36 13 Concrete Countertops
12 36 16 Metal Countertops
12 36 19 Wood Countertops
12 36 23 Plastic Countertops
12 36 23.13 Plastic-Laminate-Clad Countertops
12 36 40 Stone Countertops
12 36 53 Laboratory Countertops
12 36 61 Simulated Stone Countertops
12 36 61.13 Cultured Marble Countertops
12 36 61.16 Solid Surfacing Countertops
12 36 61.19 Quartz Agglomerate Countertops

12 40 00 Furnishings and Accessories
12 41 00 Office Accessories
12 41 13 Desk Accessories

12 42 00 Table Accessories
12 42 13 Ceramics
12 42 16 Flatware
12 42 16.13 Silverware
12 42 19 Hollowware
12 42 23 Glassware
12 42 26 Table Linens
12 42 26.13 Napery

12 43 00 Portable Lamps
12 43 13 Lamps
12 43 13.13 Desk Lamps
12 43 13.16 Table Lamps
12 43 13.19 Floor Lamps

12 44 00 Bath Furnishings
12 44 13 Bath Linens
12 44 13.13 Bath Mats
12 44 13.16 Bath Towels
12 44 16 Shower Curtains

12 45 00 Bedroom Furnishings
12 45 13 Bed Linens
12 45 13.13 Blankets
12 45 13.16 Comforters
12 45 16 Pillows
12 46 00 Furnishing Accessories
  12 46 13 Ash Receptacles
  12 46 16 Bowls
  12 46 19 Clocks
  12 46 23 Decorative Crafts
  12 46 26 Decorative Screens
  12 46 29 Vases
  12 46 33 Waste Receptacles

12 48 00 Rugs and Mats
  12 48 13 Entrance Floor Mats and Frames
  12 48 13.13 Entrance Floor Mats
  12 48 13.16 Entrance Floor Mat Frames
  12 48 16 Entrance Floor Grilles
  12 48 19 Entrance Floor Gratings
  12 48 23 Entrance Floor Grids
  12 48 26 Entrance Tile
  12 48 43 Floor Mats
  12 48 43.13 Chair Mats
  12 48 43.23 Anti-Fatigue Floor Mats
  12 48 43.26 Fall-Cushioning Floor Mats
  12 48 53 Rugs
  12 48 53.13 Runners
  12 48 53.16 Oriental Rugs

12 50 00 Furniture

12 51 00 Office Furniture
  12 51 16 Case Goods
  12 51 16.13 Metal Case Goods
  12 51 16.16 Wood Case Goods
  12 51 16.19 Plastic-Laminate-Clad Case Goods
  12 51 19 Filing Cabinets
  12 51 19.13 Lateral Filing Cabinets
  12 51 19.16 Vertical Filing Cabinets
  12 51 23 Office Tables
  12 51 83 Custom Office Furniture

12 52 00 Seating
  12 52 13 Chairs
  12 52 19 Upholstered Seating
  12 52 23 Office Seating
  12 52 70 Healthcare Seating
  12 52 83 Custom Seating

12 53 00 Retail Furniture
  12 53 83 Custom Retail Furniture

12 54 00 Hospitality Furniture
  12 54 13 Hotel and Motel Furniture
  12 54 16 Restaurant Furniture
  12 54 83 Custom Hospitality Furniture

12 55 00 Detention Furniture
  12 55 13 Detention Bunks
  12 55 16 Detention Desks
<table>
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<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
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<td>Detention Tables</td>
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<td>Detention Safety Clothes Hooks</td>
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<td>12 55 83</td>
<td>Custom Detention Furniture</td>
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<td>12 55 86</td>
<td>Detention Control Room Furniture</td>
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<td>Religious Furniture</td>
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<td>12 56 33</td>
<td>Classroom Furniture</td>
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<td>12 56 33.13</td>
<td>Fixed Classroom Tables</td>
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<td>12 56 33.23</td>
<td>Classroom Computer Furniture</td>
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<td>12 56 39</td>
<td>Lecterns</td>
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<td>12 56 43</td>
<td>Dormitory Furniture</td>
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<td>Library Furniture</td>
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<td>12 56 51.13</td>
<td>Book Shelves</td>
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<td>Study Carrels</td>
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<td>Index Card File Cabinets</td>
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<td>Site Tables</td>
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13 00 00 Special Construction

13 01 00 Operation and Maintenance of Special Construction
13 01 10 Operation and Maintenance of Special Facility Components
13 01 11 Operation and Maintenance of Swimming Pools
13 01 12 Operation and Maintenance of Fountains
13 01 13 Operation and Maintenance of Aquariums
13 01 14 Operation and Maintenance of Amusement Park Structures and Equipment
13 01 18 Operation and Maintenance of Ice Rinks
13 01 20 Operation and Maintenance of Special Purpose Rooms
13 01 21 Operation and Maintenance of Controlled Environment Rooms
13 01 23 Operation and Maintenance of Planetariums
13 01 30 Operation and Maintenance of Special Structures
13 01 40 Operation and Maintenance of Integrated Construction
13 01 49 Operation and Maintenance of Radiation Protection
13 01 50 Operation and Maintenance of Special Instrumentation
13 01 51 Operation and Maintenance of Stress Instrumentation
13 01 52 Operation and Maintenance of Seismic Instrumentation
13 01 53 Operation and Maintenance of Meteorological Instrumentation

13 05 00 Common Work Results for Special Construction

13 06 00 Schedules for Special Construction
13 06 10 Schedules for Special Facility Components
13 06 20 Schedules for Special Purpose Rooms
13 06 30 Schedules for Special Structures
13 06 40 Schedules for Integrated Construction
13 06 50 Schedules for Special Instrumentation

13 08 00 Commissioning of Special Construction
13 08 10 Commissioning of Special Facility Components
13 08 11 Commissioning of Swimming Pools
13 08 12 Commissioning of Fountains
13 08 13 Commissioning of Aquariums
13 08 14 Commissioning of Amusement Park Structures and Equipment
13 08 18 Commissioning of Ice Rinks
13 08 20 Commissioning of Special Purpose Rooms
13 08 21 Commissioning of Controlled Environment Rooms
13 08 23 Commissioning of Planetariums
13 08 30 Commissioning of Special Structures
13 08 40 Commissioning of Integrated Construction
13 08 50 Commissioning of Special Instrumentation

13 10 00 Special Facility Components

13 11 00 Swimming Pools
13 11 13 Below-Grade Swimming Pools
13 11 23 On-Grade Swimming Pools
13 11 33 Elevated Swimming Pools
13 11 43 Recirculating Gutter Systems
13 11 46 Swimming Pool Accessories
13 11 49 Swimming Pool Cleaning Equipment
13 11 53 Movable Pool Bulkheads
13 11 56 Movable Pool Floors
13 12 00  Fountains
   13 12 13  Exterior Fountains
   13 12 23  Interior Fountains
13 13 00  Aquariums
13 14 00  Amusement Park Structures and Equipment
   13 14 13  Water Slides
   13 14 16  Wave Generating Equipment
   13 14 23  Amusement Park Rides
13 17 00  Tubs and Pools
   13 17 13  Hot Tubs
   13 17 23  Therapeutic Pools
   13 17 33  Whirlpool Tubs
13 18 00  Ice Rinks
   13 18 13  Ice Rink Floor Systems
   13 18 16  Ice Rink Dasher Boards
13 19 00  Kennels and Animal Shelters
   13 19 13  Kennel Enclosures and Gates
   13 19 16  Kennel Feeding Devices
13 20 00  Special Purpose Rooms
13 21 00  Controlled Environment Rooms
   13 21 13  Clean Rooms
   13 21 16  Hyperbaric Rooms
   13 21 23  Insulated Rooms
   13 21 26  Cold Storage Rooms
   13 21 26.13  Walk-in Coolers
   13 21 26.16  Walk-in Freezers
   13 21 29  Constant Temperature Rooms
   13 21 48  Sound-Conditioned Rooms
13 22 00  Office Shelters and Booths
13 23 00  Planetariums
13 24 00  Special Activity Rooms
   13 24 16  Saunas
   13 24 26  Steam Baths
   13 24 66  Athletic Rooms
13 26 00  Fabricated Rooms
   13 26 13  Storm Shelter Rooms
13 27 00  Vaults
   13 27 16  Modular Fire Vaults
   13 27 53  Security Vaults
   13 27 53.13  Modular Concrete Security Vaults
   13 27 53.16  Modular Metal-Clad Laminated Security Vaults
13 28 00  Athletic and Recreational Special Construction
   13 28 13  Indoor Soccer Boards
   13 28 16  Safety Netting
   13 28 19  Arena Football Boards
   13 28 26  Floor Sockets
   13 28 33  Athletic and Recreational Court Walls
13 28 66 Demountable Athletic Surfaces

**13 30 00 Special Structures**

13 31 00 Fabric Structures
13 31 13 Air-Supported Fabric Structures
13 31 13.13 Single-Walled Air-Supported Structures
13 31 13.16 Multiple-Walled Air-Supported Structures
13 31 23 Tensioned Fabric Structures
13 31 33 Framed Fabric Structures

13 32 00 Space Frames
13 32 13 Metal Space Frames
13 32 23 Wood Space Frames

13 33 00 Geodesic Structures
13 33 13 Geodesic Domes

13 34 00 Fabricated Engineered Structures
13 34 13 Glazed Structures
13 34 13.13 Greenhouses
13 34 13.16 Solariums
13 34 13.19 Swimming Pool Enclosures
13 34 13.23 Sunrooms
13 34 13.26 Conservatories
13 34 16 Grandstands and Bleachers
13 34 16.13 Grandstands
13 34 16.53 Bleachers
13 34 18 Post Frame Building Systems
13 34 19 Metal Building Systems
13 34 23 Fabricated Structures
13 34 23.13 Portable and Mobile Buildings
13 34 23.14 Fabricated Classroom Buildings
13 34 23.16 Fabricated Control Booths
13 34 23.19 Fabricated Dome Structures
13 34 23.23 Fabricated Substation Control Rooms
13 34 56 Observatories

13 35 00 Rammed Earth Construction
13 35 13 Rammed Earth Walls
13 35 13.13 Traditional Rammed Earth Walls
13 35 13.23 Stabilized Insulated Rammed Earth Walls

13 36 00 Towers
13 36 13 Metal Towers
13 36 13.13 Steel Towers
13 36 23 Wood Towers

13 40 00 Integrated Construction

13 42 00 Building Modules
13 42 13 Bathroom Unit Modules
13 42 25 Hospitality Unit Modules
13 42 33 Apartment Unit Modules
13 42 43 Dormitory Unit Modules
13 42 46 Education Unit Modules
13 42 63 Detention Cell Modules
13 42 63.13 Precast-Concrete Detention Cell Modules
13 42 63.16  Steel Detention Cell Modules

13 44 00  Modular Mezzanines

13 48 00  Sound, Vibration, and Seismic Control
  13 48 13  Manufactured Sound and Vibration Control Components
  13 48 23  Fabricated Sound and Vibration Control Assemblies
  13 48 53  Manufactured Seismic Control Components
  13 48 63  Fabricated Seismic Control Assemblies

13 49 00  Radiation Protection
  13 49 13  Integrated X-Ray Shielding Assemblies
  13 49 16  Modular X-Ray Shielding Rooms
  13 49 23  Integrated RFI/EMI Shielding Assemblies
  13 49 26  Modular RFI/EMI Shielding Rooms

13 50 00  Special Instrumentation

13 51 00  Stress Instrumentation

13 52 00  Seismic Instrumentation

13 53 00  Meteorological Instrumentation
  13 53 13  Solar Instrumentation
  13 53 23  Wind Instrumentation
14 00 00 Conveying Equipment
  14 01 00 Operation and Maintenance of Conveying Equipment
    14 01 10 Operation and Maintenance of Dumbwaiters
    14 01 20 Operation and Maintenance of Elevators
    14 01 30 Operation and Maintenance of Escalators and Moving Walks
    14 01 40 Operation and Maintenance of Lifts
    14 01 70 Operation and Maintenance of Turntables
    14 01 80 Operation and Maintenance of Scaffolding
    14 01 90 Operation and Maintenance of Other Conveying Equipment
  14 05 00 Common Work Results for Conveying Equipment
  14 06 00 Schedules for Conveying Equipment
    14 06 10 Schedules for Dumbwaiters
    14 06 20 Schedules for Elevators
    14 06 20.13 Elevator Equipment Schedule
    14 06 30 Schedules for Escalators and Moving Walks
    14 06 40 Schedules for Lifts
    14 06 40.13 Lift Schedule
    14 06 70 Schedules for Turntables
    14 06 80 Schedules for Scaffolding
    14 06 90 Schedules for Other Conveying Equipment
  14 08 00 Commissioning of Conveying Equipment
    14 08 10 Commissioning of Dumbwaiters
    14 08 20 Commissioning of Elevators
    14 08 30 Commissioning of Escalators and Moving Walks
    14 08 40 Commissioning of Lifts
    14 08 70 Commissioning of Turntables
    14 08 80 Commissioning of Scaffolding
  14 10 00 Dumbwaiters
    14 11 00 Manual Dumbwaiters
    14 12 00 Electric Dumbwaiters
  14 14 00 Hydraulic Dumbwaiters
  14 20 00 Elevators
    14 21 00 Electric Traction Elevators
      14 21 13 Electric Traction Freight Elevators
      14 21 23 Electric Traction Passenger Elevators
      14 21 23.13 Machine Room Electric Traction Passenger Elevators
      14 21 23.16 Machine Room-Less Electric Traction Passenger Elevators
      14 21 33 Electric Traction Residential Elevators
      14 21 43 Electric Traction Service Elevators
    14 24 00 Hydraulic Elevators
      14 24 13 Hydraulic Freight Elevators
      14 24 23 Hydraulic Passenger Elevators
      14 24 33 Hydraulic Residential Elevators
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14 82 16   Powered Rope Climbers
14 83 00   Elevating Platforms
    14 83 13   Telescoping Platform Lifts
    14 83 13.13 Electric and Battery Telescoping Platform Lifts
    14 83 13.16 Pneumatic Telescoping Platform Lifts
    14 83 16   Scissor Lift Platforms
    14 83 19   Multi-Axis Platform Lifts
14 84 00   Powered Scaffolding
    14 84 13   Window Washing Scaffolding
    14 84 23   Window Washing Hoists
14 90 00   Other Conveying Equipment
14 91 00   Facility Chutes
    14 91 13   Coal Chutes
    14 91 23   Escape Chutes
    14 91 33   Laundry and Linen Chutes
    14 91 82   Trash Chutes
14 92 00   Pneumatic Tube Systems
14 93 00   Slide Pole Systems
    14 93 13   Firehouse Slide Poles
21 00 00  Fire Suppression

21 01 00  Operation and Maintenance of Fire Suppression
  21 01 10  Operation and Maintenance of Water-Based Fire-Suppression Systems
  21 01 20  Operation and Maintenance of Fire-Extinguishing Systems
  21 01 30  Operation and Maintenance of Fire-Suppression Equipment

21 05 00  Common Work Results for Fire Suppression
  21 05 13  Common Motor Requirements for Fire-Suppression Equipment
  21 05 16  Expansion Fittings and Loops for Fire-Suppression Piping
  21 05 19  Meters and Gages for Fire-Suppression Systems
  21 05 23  General-Duty Valves for Water-Based Fire-Suppression Piping
  21 05 29  Hangers and Supports for Fire-Suppression Piping and Equipment
  21 05 33  Heat Tracing for Fire-Suppression Piping
  21 05 48  Vibration and Seismic Controls for Fire-Suppression Piping and Equipment
  21 05 53  Identification for Fire-Suppression Piping and Equipment

21 06 00  Schedules for Fire Suppression
  21 06 10  Schedules for Water-Based Fire-Suppression Systems
  21 06 20  Schedules for Fire-Extinguishing Systems
  21 06 30  Schedules for Fire-Suppression Equipment

21 07 00  Fire Suppression Systems Insulation
  21 07 16  Fire-Suppression Equipment Insulation
  21 07 19  Fire-Suppression Piping Insulation

21 08 00  Commissioning of Fire Suppression

21 09 00  Instrumentation and Control for Fire-Suppression Systems

21 10 00  Water-Based Fire-Suppression Systems
  21 11 00  Facility Fire-Suppression Water-Service Piping
    21 11 16  Facility Fire Hydrants
    21 11 19  Fire-Department Connections

21 12 00  Fire-Suppression Standpipes
  21 12 13  Fire-Suppression Hoses and Nozzles
  21 12 16  Fire-Suppression Hose Reels
  21 12 19  Fire-Suppression Hose Racks
  21 12 23  Fire-Suppression Hose Valves

21 13 00  Fire-Suppression Sprinkler Systems
  21 13 13  Wet-Pipe Sprinkler Systems
  21 13 16  Dry-Pipe Sprinkler Systems
  21 13 19  Preaction Sprinkler Systems
  21 13 23  Combined Dry-Pipe and Preaction Sprinkler Systems
  21 13 26  Deluge Fire-Suppression Sprinkler Systems
  21 13 29  Water Spray Fixed Systems
  21 13 36  Antifreeze Sprinkler Systems
  21 13 39  Foam-Water Systems

21 16 00  Fire-Suppression Pressure Maintenance Pumps

21 20 00  Fire-Extinguishing Systems

21 21 00  Carbon-Dioxide Fire-Extinguishing Systems
21 21 13  Carbon-Dioxide Fire-Extinguishing Piping
21 21 16  Carbon-Dioxide Fire-Extinguishing Equipment

21 22 00  Clean-Agent Fire-Extinguishing Systems
21 22 13  Clean-Agent Fire-Extinguishing Piping
21 22 16  Clean-Agent Fire-Extinguishing Equipment

21 23 00  Wet-Chemical Fire-Extinguishing Systems
21 23 13  Wet-Chemical Fire-Extinguishing Piping
21 23 16  Wet-Chemical Fire-Extinguishing Equipment

21 24 00  Dry-Chemical Fire-Extinguishing Systems
21 24 13  Dry-Chemical Fire-Extinguishing Piping
21 24 16  Dry-Chemical Fire-Extinguishing Equipment

21 30 00  Fire Pumps
21 31 00  Centrifugal Fire Pumps
21 31 13  Electric-Drive, Centrifugal Fire Pumps
21 31 16  Diesel-Drive, Centrifugal Fire Pumps

21 32 00  Vertical-Turbine Fire Pumps
21 32 13  Electric-Drive, Vertical-Turbine Fire Pumps
21 32 16  Diesel-Drive, Vertical-Turbine Fire Pumps

21 33 00  Positive-Displacement Fire Pumps
21 33 13  Electric-Drive, Positive-Displacement Fire Pumps
21 33 16  Diesel-Drive, Positive-Displacement Fire Pumps

21 40 00  Fire-Suppression Water Storage
21 41 00  Storage Tanks for Fire-Suppression Water
21 41 13  Pressurized Storage Tanks for Fire-Suppression Water
21 41 16  Elevated Storage Tanks for Fire-Suppression Water
21 41 19  Roof-Mounted Storage Tanks for Fire-Suppression Water
21 41 23  Ground Suction Storage Tanks for Fire-Suppression Water
21 41 26  Underground Storage Tanks for Fire-Suppression Water
21 41 29  Storage Tanks for Fire-Suppression Water Additives
22 00 00  Plumbing

22 01 00  Operation and Maintenance of Plumbing
  22 01 10  Operation and Maintenance of Plumbing Piping and Pumps
  22 01 10.16  Video Piping Inspections
  22 01 10.51  Plumbing Piping Cleaning
  22 01 10.61  Plumbing Piping Repairs
  22 01 10.62  Plumbing Piping Relining
  22 01 30  Operation and Maintenance of Plumbing Equipment
  22 01 40  Operation and Maintenance of Plumbing Fixtures
  22 01 50  Operation and Maintenance of Pool and Fountain Plumbing Systems
  22 01 60  Operation and Maintenance of Laboratory and Healthcare Systems

22 05 00  Common Work Results for Plumbing
  22 05 13  Common Motor Requirements for Plumbing Equipment
  22 05 16  Expansion Fittings and Loops for Plumbing Piping
  22 05 19  Meters and Gages for Plumbing Piping
  22 05 23  General-Duty Valves for Plumbing Piping
  22 05 29  Hangers and Supports for Plumbing Piping and Equipment
  22 05 33  Heat Tracing for Plumbing Piping
  22 05 48  Vibration and Seismic Controls for Plumbing Piping and Equipment
  22 05 53  Identification for Plumbing Piping and Equipment
  22 05 73  Facility Drainage Manholes
  22 05 76  Facility Drainage Piping Cleanouts

22 06 00  Schedules for Plumbing
  22 06 10  Schedules for Plumbing Piping and Pumps
  22 06 10.13  Plumbing Pump Schedule
  22 06 12  Schedules for Facility Potable Water Storage
  22 06 15  Schedules for General Service Compressed-Air Equipment
  22 06 30  Schedules for Plumbing Equipment
  22 06 30.13  Domestic Water Heater Schedule
  22 06 40  Schedules for Plumbing Fixtures
  22 06 40.13  Plumbing Fixture Schedule
  22 06 50  Schedules for Pool and Fountain Plumbing Systems
  22 06 60  Schedules for Laboratory and Healthcare Systems

22 07 00  Plumbing Insulation
  22 07 16  Plumbing Equipment Insulation
  22 07 19  Plumbing Piping Insulation

22 08 00  Commissioning of Plumbing

22 09 00  Instrumentation and Control for Plumbing

22 10 00  Plumbing Piping

22 11 00  Facility Water Distribution
  22 11 13  Facility Water Distribution Piping
  22 11 16  Domestic Water Piping
  22 11 19  Domestic Water Piping Specialties
  22 11 23  Domestic Water Pumps
  22 11 23.13  Domestic-Water Packaged Booster Pumps
  22 11 23.23  Close-Coupled, In-Line, Sealless Centrifugal Domestic-Water Pumps
  22 11 23.26  Close-Coupled, Horizontally Mounted, In-Line Centrifugal Domestic-Water Pumps
  22 11 23.29  Close-Coupled, Vertically Mounted, In-Line Centrifugal Domestic-Water Pumps
22 11 23.33 Separately Coupled, In-Line Centrifugal Domestic-Water Pumps
22 11 23.36 Separately Coupled, Horizontally Mounted, In-Line Centrifugal Domestic-Water Pumps

22 12 00 Facility Potable-Water Storage Tanks
22 12 13 Facility Roof-Mounted, Potable-Water Storage Tanks
22 12 16 Facility Elevated, Potable-Water Storage Tanks
22 12 19 Facility Ground-Mounted, Potable-Water Storage Tanks
22 12 21 Facility Underground Potable-Water Storage Tanks
22 12 23 Facility Indoor Potable-Water Storage Tanks
22 12 23.13 Facility Steel, Indoor Potable-Water Storage Pressure Tanks
22 12 23.16 Facility Steel, Indoor Potable-Water Storage Non-Pressure Tanks
22 12 23.23 Facility Plastic, Indoor Potable-Water Storage Pressure Tanks
22 12 23.26 Facility Plastic, Indoor Potable-Water Storage Non-Pressure Tanks

22 13 00 Facility Sanitary Sewerage
22 13 13 Facility Sanitary Sewers
22 13 16 Sanitary Waste and Vent Piping
22 13 19 Sanitary Waste Piping Specialties
22 13 19.13 Sanitary Drains
22 13 19.23 Fats, Oils, and Grease Disposal Systems
22 13 19.26 Grease Removal Devices
22 13 19.33 Backwater Valves
22 13 19.36 Air-Admittance Valves
22 13 23 Sanitary Waste Interceptors
22 13 26 Sanitary Waste Separators
22 13 29 Sanitary Sewerage Pumps
22 13 29.13 Wet-Pit-Mounted, Vertical Sewerage Pumps
22 13 29.16 Submersible Sewerage Pumps
22 13 29.23 Sewerage Pump Reverse-Flow Assemblies
22 13 29.33 Sewerage Pump Basins and Pits
22 13 33 Packaged, Submersible Sewerage Pump Units
22 13 36 Packaged, Wastewater Pump Units
22 13 43 Facility Packaged Sewage Pumping Stations
22 13 43.13 Facility Dry-Well Packaged Sewage Pumping Stations
22 13 43.16 Facility Wet-Well Packaged Sewage Pumping Stations
22 13 53 Facility Septic Tanks
22 13 63 Facility Gray Water Tanks

22 14 00 Facility Storm Drainage
22 14 13 Facility Storm Drainage Piping
22 14 16 Rainwater Leaders
22 14 19 Sump Pump Discharge Piping
22 14 23 Storm Drainage Piping Specialties
22 14 26 Facility Storm Drains
22 14 26.13 Roof Drains
22 14 26.16 Facility Area Drains
22 14 26.19 Facility Trench Drains
22 14 29 Sump Pumps
22 14 29.13 Wet-Pit-Mounted, Vertical Sump Pumps
22 14 29.16 Submersible Sump Pumps
22 14 29.19 Sump-Pump Basins and Pits
22 14 33 Packaged, Pedestal Drainage Pump Units
22 14 36 Packaged, Submersible, Drainage Pump Units
22 14 53 Rainwater Storage Tanks

83
22 15 00  General Service Compressed-Air Systems
22 15 13  General Service Compressed-Air Piping
22 15 16  General Service Compressed-Air Valves
22 15 19  General Service Packaged Air Compressors and Receivers
22 15 19.13 General Service Packaged Reciprocating Air Compressors
22 15 19.16 General Service Packaged Liquid-Ring Air Compressors
22 15 19.19 General Service Packaged Rotary-Screw Air Compressors
22 15 19.23 General Service Packaged Sliding-Vane Air Compressors

22 30 00  Plumbing Equipment

22 31 00  Domestic Water Softeners
22 31 13  Residential Domestic Water Softeners
22 31 16  Commercial Domestic Water Softeners

22 32 00  Domestic Water Filtration Equipment
22 32 13  Domestic-Water Bag-Type Filters
22 32 16  Domestic-Water Freestanding Cartridge Filters
22 32 19  Domestic-Water Off-Floor Cartridge Filters
22 32 23  Domestic-Water Carbon Filters
22 32 26  Domestic-Water Sand Filters
22 32 26.13 Domestic-Water Circulating Sand Filters
22 32 26.16 Domestic-Water Multimedia Sand Filters
22 32 26.19 Domestic-Water Greensand Filters

22 33 00  Electric Domestic Water Heaters
22 33 13  Instantaneous Electric Domestic Water Heaters
22 33 13.13 Flow-Control, Instantaneous Electric Domestic Water Heaters
22 33 13.16 Thermostat-Control, Instantaneous Electric Domestic Water Heaters
22 33 30  Residential, Electric Domestic Water Heaters
22 33 30.13 Residential, Small-Capacity Electric Domestic Water Heaters
22 33 30.16 Residential, Storage Electric Domestic Water Heaters
22 33 30.23 Residential, Collector-to-Tank, Solar-Electric Domestic Water Heaters
22 33 30.26 Residential, Collector-to-Tank, Heat-Exchanger-Coil, Solar-Electric Domestic Water Heaters
22 33 33  Light-Commercial Electric Domestic Water Heaters
22 33 36  Commercial Domestic Water Electric Booster Heaters
22 33 36.13 Commercial Domestic Water Electric Booster Heaters
22 33 36.16 Commercial Storage Electric Domestic Water Heaters

22 34 00  Fuel-Fired Domestic Water Heaters
22 34 13  Instantaneous, Tankless, Gas Domestic Water Heaters
22 34 30  Residential Gas Domestic Water Heaters
22 34 30.13 Residential, Atmospheric, Gas Domestic Water Heaters
22 34 30.16 Residential, Direct-Vent, Gas Domestic Water Heaters
22 34 30.19 Residential, Power-Vent, Gas Domestic Water Heaters
22 34 36  Commercial Gas Domestic Water Heaters
22 34 36.13 Commercial, Atmospheric, Gas Domestic Water Heaters
22 34 36.16 Commercial, Power-Burner, Gas Domestic Water Heaters
22 34 36.19 Commercial, Power-Vent, Gas Domestic Water Heaters
22 34 36.23 Commercial, High-Efficiency, Gas Domestic Water Heaters
22 34 36.26 Commercial, Coil-Type, Finned-Tube, Gas Domestic Water Heaters
22 34 36.29 Commercial, Grid-Type, Finned-Tube, Gas Domestic Water Heaters
22 34 46  Oil-Fired Domestic Water Heaters
22 34 46.13 Large-Capacity, Oil-Fired Domestic Water Heaters
22 34 56  Dual-Fuel-Fired Domestic Water Heaters
22 35 00  Domestic Water Heat Exchangers
  22 35 13  Instantaneous Domestic Water Heat Exchangers
  22 35 13.13  Heating-Fluid-in-Coil, Instantaneous Domestic Water Heat Exchangers
  22 35 13.16  Domestic-Water-in-Coil, Instantaneous Domestic Water Heat Exchangers
  22 35 23  Circulating, Domestic Water Heat Exchangers
  22 35 23.13  Circulating, Compact Domestic Water Heat Exchangers
  22 35 23.16  Circulating, Storage Domestic Water Heat Exchangers
  22 35 29  Noncirculating, Domestic Water Heat Exchangers
  22 35 29.13  Noncirculating, Compact Domestic Water Heat Exchangers
  22 35 29.16  Noncirculating, Storage Domestic Water Heat Exchangers
  22 35 36  Domestic Water Brazed-Plate Heat Exchangers
  22 35 39  Domestic Water Frame-and-Plate Heat Exchangers
  22 35 43  Domestic Water Heat Reclaimers

22 40 00  Plumbing Fixtures
  22 41 00  Residential Plumbing Fixtures
    22 41 13  Residential Water Closets, Urinals, and Bidets
    22 41 13.13  Residential Water Closets
    22 41 13.16  Residential Urinals
    22 41 13.19  Residential Bidets
    22 41 16  Residential Lavatories and Sinks
    22 41 16.13  Residential Lavatories
    22 41 16.16  Residential Sinks
    22 41 19  Residential Bathtubs
    22 41 23  Residential Showers
    22 41 26  Residential Disposers
    22 41 36  Residential Laundry Trays
    22 41 39  Residential Faucets, Supplies, and Trim

  22 42 00  Commercial Plumbing Fixtures
    22 42 13  Commercial Water Closets, Urinals, and Bidets
    22 42 13.13  Commercial Water Closets
    22 42 13.16  Commercial Urinals
    22 42 16  Commercial Lavatories and Sinks
    22 42 16.13  Commercial Lavatories
    22 42 16.16  Commercial Sinks
    22 42 19  Commercial Bathtubs
    22 42 23  Commercial Showers
    22 42 26  Commercial Disposers
    22 42 29  Shampoo Bowls
    22 42 33  Wash Fountains
    22 42 36  Commercial Laundry Trays
    22 42 39  Commercial Faucets, Supplies, and Trim
    22 42 43  Flushometers

  22 43 00  Healthcare Plumbing Fixtures
    22 43 13  Healthcare Water Closets
    22 43 16  Healthcare Sinks
    22 43 19  Healthcare Bathtubs
    22 43 23  Healthcare Showers
    22 43 39  Healthcare Faucets
    22 43 43  Healthcare Plumbing Fixture Flushometers
22 45 00  Emergency Plumbing Fixtures
   22 45 13  Emergency Showers
   22 45 16  Eyewash Equipment
   22 45 19  Self-Contained Eyewash Equipment
   22 45 23  Personal Eyewash Equipment
   22 45 26  Eye/Face Wash Equipment
   22 45 29  Hand-Held Emergency Drench Hoses
   22 45 33  Combination Emergency Fixture Units
   22 45 36  Emergency Fixture Water-Tempering Equipment

22 46 00  Security Plumbing Fixtures
   22 46 13  Security Water Closets and Urinals
   22 46 13.13  Security Water Closets
   22 46 13.16  Security Urinals
   22 46 16  Security Lavatories and Sinks
   22 46 16.13  Security Lavatories
   22 46 16.16  Security Sinks
   22 46 19  Security Showers
   22 46 39  Security Faucets, Supplies, and Trim
   22 46 43  Security Plumbing Fixture Flushometers
   22 46 53  Security Plumbing Fixture Supports

22 47 00  Drinking Fountains and Water Coolers
   22 47 13  Drinking Fountains
   22 47 16  Pressure Water Coolers
   22 47 19  Water-Station Water Coolers
   22 47 23  Remote Water Coolers

22 50 00  Pool and Fountain Plumbing Systems

22 51 00  Swimming Pool Plumbing Systems
   22 51 13  Swimming Pool Piping
   22 51 16  Swimming Pool Pumps
   22 51 19  Swimming Pool Water Treatment Equipment
   22 51 23  Swimming Pool Equipment Controls

22 52 00  Fountain Plumbing Systems
   22 52 13  Fountain Piping
   22 52 16  Fountain Pumps
   22 52 19  Fountain Water Treatment Equipment
   22 52 23  Fountain Equipment Controls

22 60 00  Gas and Vacuum Systems for Laboratory and Healthcare Facilities

22 61 00  Compressed-Air Systems for Laboratory and Healthcare Facilities
   22 61 13  Compressed-Air Piping for Laboratory and Healthcare Facilities
   22 61 13.53  Laboratory Compressed-Air Piping
   22 61 13.70  Healthcare Compressed-Air Piping
   22 61 13.74  Dental Compressed-Air Piping
   22 61 19  Compressed-Air Equipment for Laboratory and Healthcare Facilities
   22 61 19.53  Laboratory Compressed-Air Equipment
   22 61 19.70  Healthcare Compressed-Air Equipment
   22 61 19.74  Dental Compressed-Air Equipment
22 62 00  Vacuum Systems for Laboratory and Healthcare Facilities
  22 62 13  Vacuum Piping for Laboratory and Healthcare Facilities
  22 62 13.53  Laboratory Vacuum Piping
  22 62 13.70  Healthcare, Surgical Vacuum Piping
  22 62 13.74  Dental Vacuum Piping
  22 62 19  Vacuum Equipment for Laboratory and Healthcare Facilities
  22 62 19.53  Laboratory Vacuum Equipment
  22 62 19.70  Healthcare Vacuum Equipment
  22 62 19.74  Dental Vacuum and Evacuation Equipment
  22 62 23  Waste Anesthesia-Gas Piping

22 63 00  Gas Systems for Laboratory and Healthcare Facilities
  22 63 13  Gas Piping for Laboratory and Healthcare Facilities
  22 63 13.53  Laboratory Gas Piping
  22 63 13.70  Healthcare Gas Piping
  22 63 19  Gas Storage Tanks for Laboratory and Healthcare Facilities
  22 63 19.53  Laboratory Gas Storage Tanks
  22 63 19.70  Healthcare Gas Storage Tanks

22 66 00  Chemical-Waste Systems for Laboratory and Healthcare Facilities
  22 66 53  Laboratory Chemical-Waste and Vent Piping
  22 66 70  Healthcare Chemical-Waste and Vent Piping
  22 66 83  Chemical-Waste Tanks
  22 66 83.13  Chemical-Waste Dilution Tanks
  22 66 83.16  Chemical-Waste Neutralization Tanks

22 67 00  Processed Water Systems for Laboratory and Healthcare Facilities
  22 67 13  Processed Water Piping for Laboratory and Healthcare Facilities
  22 67 13.13  Distilled-Water Piping
  22 67 13.16  Reverse-Osmosis Water Piping
  22 67 13.19  Deionized-Water Piping
  22 67 19  Processed Water Equipment for Laboratory and Healthcare Facilities
  22 67 19.13  Distilled-Water Equipment
  22 67 19.16  Reverse-Osmosis Water Equipment
  22 67 19.19  Deionized-Water Equipment
23 00 00 Heating, Ventilating, and Air Conditioning (HVAC)

23 01 00 Operation and Maintenance of HVAC Systems
- 23 01 10 Operation and Maintenance of Facility Fuel Systems
- 23 01 20 Operation and Maintenance of HVAC Piping and Pumps
- 23 01 30 Operation and Maintenance of HVAC Air Distribution
- 23 01 30.51 HVAC Air-Distribution System Cleaning
- 23 01 50 Operation and Maintenance of Central Heating Equipment
- 23 01 60 Operation and Maintenance of Central Cooling Equipment
- 23 01 60.71 Refrigerant Recovery/Recycling
- 23 01 70 Operation and Maintenance of Central HVAC Equipment
- 23 01 80 Operation and Maintenance of Decentralized HVAC Equipment
- 23 01 90 Diagnostic Systems for HVAC

23 05 00 Common Work Results for HVAC
- 23 05 13 Common Motor Requirements for HVAC Equipment
- 23 05 16 Expansion Fittings and Loops for HVAC Piping
- 23 05 19 Meters and Gages for HVAC Piping
- 23 05 23 General-Duty Valves for HVAC Piping
- 23 05 29 Hangers and Supports for HVAC Piping and Equipment
- 23 05 33 Heat Tracing for HVAC Piping
- 23 05 48 Vibration and Seismic Controls for HVAC
- 23 05 53 Identification for HVAC Piping and Equipment
- 23 05 63 Anti-Microbial Coatings for HVAC Ducts and Equipment
- 23 05 66 Anti-Microbial Ultraviolet Emitters for HVAC Ducts and Equipment
- 23 05 93 Testing, Adjusting, and Balancing for HVAC

23 06 00 Schedules for HVAC
- 23 06 10 Schedules for Facility Fuel Service Systems
- 23 06 20 Schedules for HVAC Piping and Pumps
- 23 06 20.13 Hydronic Pump Schedule
- 23 06 30 Schedules for HVAC Air Distribution
- 23 06 30.13 HVAC Fan Schedule
- 23 06 30.16 Air Terminal Unit Schedule
- 23 06 30.19 Air Outlet and Inlet Schedule
- 23 06 30.23 HVAC Air Cleaning Device Schedule
- 23 06 50 Schedules for Central Heating Equipment
- 23 06 50.13 Heating Boiler Schedule
- 23 06 60 Schedules for Central Cooling Equipment
- 23 06 60.13 Refrigerant Condenser Schedule
- 23 06 60.16 Packaged Water Chiller Schedule
- 23 06 70 Schedules for Central HVAC Equipment
- 23 06 70.13 Indoor, Central-Station Air-Handling Unit Schedule
- 23 06 70.16 Packaged Outdoor HVAC Equipment Schedule
- 23 06 80 Schedules for Decentralized HVAC Equipment
- 23 06 80.13 Decentralized Unitary HVAC Equipment Schedule
- 23 06 80.16 Convection Heating and Cooling Unit Schedule
- 23 06 80.19 Radiant Heating Unit Schedule

23 07 00 HVAC Insulation
- 23 07 13 Duct Insulation
- 23 07 16 HVAC Equipment Insulation
23 07 19 HVAC Piping Insulation
23 08 00 Commissioning of HVAC
23 09 00 Instrumentation and Control for HVAC
   23 09 13 Instrumentation and Control Devices for HVAC
   23 09 13.13 Actuators and Operators
   23 09 13.23 Sensors and Transmitters
   23 09 13.33 Control Valves
   23 09 13.43 Control Dampers
   23 09 23 Direct-Digital Control System for HVAC
   23 09 33 Electric and Electronic Control System for HVAC
   23 09 43 Pneumatic Control System for HVAC
   23 09 53 Pneumatic and Electric Control System for HVAC
   23 09 93 Sequence of Operations for HVAC Controls
23 10 00 Facility Fuel Systems
23 11 00 Facility Fuel Piping
   23 11 13 Facility Fuel-Oil Piping
   23 11 16 Facility Gasoline Piping
   23 11 23 Facility Natural-Gas Piping
   23 11 26 Facility Liquefied-Petroleum Gas Piping
23 12 00 Facility Fuel Pumps
   23 12 13 Facility Fuel-Oil Pumps
   23 12 16 Facility Gasoline Dispensing Pumps
23 13 00 Facility Fuel-Storage Tanks
   23 13 13 Facility Underground Fuel-Oil, Storage Tanks
   23 13 13.13 Double-Wall Steel, Underground Fuel-Oil, Storage Tanks
   23 13 13.16 Composite, Steel, Underground Fuel-Oil, Storage Tanks
   23 13 13.19 Jacketed, Steel, Underground Fuel-Oil, Storage Tanks
   23 13 13.23 Glass-Fiber-Reinforced-Plastic, Underground Fuel-Oil, Storage Tanks
   23 13 13.33 Fuel-Oil Storage Tank Pumps
   23 13 23 Facility Aboveground Fuel-Oil, Storage Tanks
   23 13 23.13 Vertical, Steel, Aboveground Fuel-Oil, Storage Tanks
   23 13 23.16 Horizontal, Steel, Aboveground Fuel-Oil, Storage Tanks
   23 13 23.19 Containment-Dike, Steel, Aboveground Fuel-Oil, Storage Tanks
   23 13 23.23 Insulated, Steel, Aboveground Fuel-Oil, Storage Tanks
   23 13 23.26 Concrete-Vaulted, Steel, Aboveground Fuel-Oil, Storage Tanks
23 20 00 HVAC Piping and Pumps
23 21 00 Hydronic Piping and Pumps
   23 21 13 Hydronic Piping
   23 21 13.13 Underground Hydronic Piping
   23 21 13.23 Aboveground Hydronic Piping
   23 21 13.33 Ground-Loop Heat-Pump Piping
   23 21 16 Hydronic Piping Specialties
   23 21 23 Hydronic Pumps
   23 21 23.13 In-Line Centrifugal Hydronic Pumps
   23 21 23.16 Base-Mounted, Centrifugal Hydronic Pumps
   23 21 23.19 Vertical-Mounted, Double-Suction Centrifugal Hydronic Pumps
   23 21 23.23 Vertical-Turbine Hydronic Pumps
   23 21 29 Automatic Condensate Pump Units
23 22 00 Steam and Condensate Piping and Pumps
23 22 13  Steam and Condensate Heating Piping
23 22 13.13 Underground Steam and Condensate Heating Piping
23 22 13.23 Aboveground Steam and Condensate Heating Piping
23 22 16  Steam and Condensate Heating Piping Specialties
23 22 23  Steam Condensate Pumps
23 22 23.13 Electric-Driven Steam Condensate Pumps
23 22 23.23 Pressure-Powered Steam Condensate Pumps

23 23 00  Refrigerant Piping
23 23 13  Refrigerant Piping Valves
23 23 16  Refrigerant Piping Specialties
23 23 19  Refrigerant Safety Relief Valve Discharge Piping
23 23 23  Refrigerants

23 24 00  Internal-Combustion Engine Piping
23 24 13  Internal-Combustion Engine Remote-Radiator Coolant Piping
23 24 16  Internal-Combustion Engine Exhaust Piping

23 25 00  HVAC Water Treatment
23 25 13  Water Treatment for Closed-Loop Hydronic Systems
23 25 16  Water Treatment for Open Hydronic Systems
23 25 19  Water Treatment for Steam System Feedwater
23 25 23  Water Treatment for Humidification Steam System Feedwater

23 30 00  HVAC Air Distribution

23 31 00  HVAC Ducts and Casings
23 31 13  Metal Ducts
23 31 13.13 Rectangular Metal Ducts
23 31 13.16 Round and Flat-Oval Spiral Ducts
23 31 13.19 Metal Duct Fittings
23 31 16  Nonmetal Ducts
23 31 16.13 Fibrous-Glass Ducts
23 31 16.16 Thermoset Fiberglass-Reinforced Plastic Ducts
23 31 16.19 PVC Ducts
23 31 16.26 Concrete Ducts
23 31 19  HVAC Casings

23 32 00  Air Plenums and Chases
23 32 13  Fabricated, Metal Air Plenums
23 32 33  Air-Distribution Ceiling Plenums
23 32 36  Air-Distribution Floor Plenums
23 32 39  Air-Distribution Wall Plenums
23 32 43  Air-Distribution Chases Formed by General Construction
23 32 48  Acoustical Air Plenums

23 33 00  Air Duct Accessories
23 33 13  Dampers
23 33 13.13 Volume-Control Dampers
23 33 13.16 Fire Dampers
23 33 13.19 Smoke-Control Dampers
23 33 13.23 Backdraft Dampers
23 33 19  Duct Silencers
23 33 23  Turning Vanes
23 33 33  Duct-Mounting Access Doors
23 33 43  Flexible Connectors
23 33 46  Flexible Ducts
23 33 53  Duct Liners

23 34 00  HVAC Fans
  23 34 13  Axial HVAC Fans
  23 34 16  Centrifugal HVAC Fans
  23 34 23  HVAC Power Ventilators
  23 34 33  Air Curtains

23 35 00  Special Exhaust Systems
  23 35 13  Dust Collection Systems
  23 35 13.13  Sawdust Collection Systems
  23 35 16  Engine Exhaust Systems
  23 35 16.13  Positive-Pressure Engine Exhaust Systems
  23 35 16.16  Mechanical Engine Exhaust Systems

23 36 00  Air Terminal Units
  23 36 13  Constant-Air-Volume Units
  23 36 16  Variable-Air-Volume Units

23 37 00  Air Outlets and Inlets
  23 37 13  Diffusers, Registers, and Grilles
  23 37 16  Fabric Air Distribution Devices
  23 37 23  HVAC Gravity Ventilators
  23 37 23.13  HVAC Gravity Dome Ventilators
  23 37 23.16  HVAC Gravity Louvered-Penthouse Ventilators
  23 37 23.19  HVAC Gravity Upblast Ventilators

23 38 00  Ventilation Hoods
  23 38 13  Commercial-Kitchen Hoods
  23 38 13.13  Listed Commercial-Kitchen Hoods
  23 38 13.16  Standard Commercial-Kitchen Hoods
  23 38 16  Fume Hoods

23 40 00  HVAC Air Cleaning Devices

23 41 00  Particulate Air Filtration
  23 41 13  Panel Air Filters
  23 41 16  Renewable-Media Air Filters
  23 41 19  Washable Air Filters
  23 41 23  Extended Surface Filters
  23 41 33  High-Efficiency Particulate Filtration
  23 41 43  Ultra-Low Penetration Filtration
  23 41 46  Super Ultra-Low Penetration Filtration

23 42 00  Gas-Phase Air Filtration
  23 42 13  Activated-Carbon Air Filtration
  23 42 16  Chemically-Impregnated Adsorption Air Filtration
  23 42 19  Catalytic-Adsorption Air Filtration

23 43 00  Electronic Air Cleaners
  23 43 13  Washable Electronic Air Cleaners
  23 43 16  Agglomerator Electronic Air Cleaners
  23 43 23  Self-Contained Electronic Air Cleaners

23 50 00  Central Heating Equipment

23 51 00  Breechings, Chimneys, and Stacks
  23 51 13  Draft Control Devices
  23 51 13.13  Draft-Induction Fans
23 51 13.16 Vent Dampers
23 51 13.19 Barometric Dampers
23 51 16 Fabricated Breechings and Accessories
23 51 19 Fabricated Stacks
23 51 23 Gas Vents
23 51 33 Insulated Sectional Chimneys
23 51 43 Flue-Gas Filtration Equipment
23 51 43.13 Gaseous Filtration
23 51 43.16 Particulate Filtration

23 52 00 Heating Boilers
23 52 13 Electric Boilers
23 52 16 Condensing Boilers
23 52 16.13 Stainless-Steel Condensing Boilers
23 52 16.16 Aluminum Condensing Boilers
23 52 17 Low Mass Boilers
23 52 19 Pulse Combustion Boilers
23 52 23 Cast-Iron Boilers
23 52 33 Water-Tube Boilers
23 52 33.13 Finned Water-Tube Boilers
23 52 33.16 Steel Water-Tube Boilers
23 52 33.19 Copper Water-Tube Boilers
23 52 39 Fire-Tube Boilers
23 52 39.13 Scotch Marine Boilers
23 52 39.16 Steel Fire-Tube Boilers
23 52 83 Boiler Blowdown Systems

23 53 00 Heating Boiler Feedwater Equipment
23 53 13 Boiler Feedwater Pumps
23 53 16 Deaerators

23 54 00 Furnaces
23 54 13 Electric-Resistance Furnaces
23 54 16 Fuel-Fired Furnaces
23 54 16.13 Gas-Fired Furnaces
23 54 16.16 Oil-Fired Furnaces

23 55 00 Fuel-Fired Heaters
23 55 13 Fuel-Fired Duct Heaters
23 55 13.13 Oil-Fired Duct Heaters
23 55 13.16 Gas-Fired Duct Heaters
23 55 23 Gas-Fired Radiant Heaters
23 55 23.13 Low-Intensity Gas-Fired Radiant Heaters
23 55 23.16 High-Intensity Gas-Fired Radiant Heaters
23 55 33 Fuel-Fired Unit Heaters
23 55 33.13 Oil-Fired Unit Heaters
23 55 33.16 Gas-Fired Unit Heaters

23 56 00 Solar Energy Heating Equipment
23 56 13 Heating Solar Collectors
23 56 13.13 Heating Solar Flat-Plate Collectors
23 56 13.16 Heating Solar Concentrating Collectors
23 56 13.19 Heating Solar Vacuum-Tube Collectors
23 56 16 Packaged Solar Heating Equipment
23 56 23 Solar Air-Heating Panels

23 57 00 Heat Exchangers for HVAC
23 57 13 Steam-to-Steam Heat Exchangers
23 57 16 Steam-to-Water Heat Exchangers
23 57 19 Liquid-to-Liquid Heat Exchangers
23 57 19.13 Plate-Type, Liquid-to-Liquid Heat Exchangers
23 57 19.16 Shell-Type, Liquid-to-Liquid Heat Exchangers
23 57 33 Direct Geoexchange Heat Exchangers

23 60 00 Central Cooling Equipment
23 61 00 Refrigerant Compressors
23 61 13 Centrifugal Refrigerant Compressors
23 61 13.13 Non-Condensable Gas Purge Equipment
23 61 16 Reciprocating Refrigerant Compressors
23 61 19 Scroll Refrigerant Compressors
23 61 23 Rotary-Screw Refrigerant Compressors

23 62 00 Packaged Compressor and Condenser Units
23 62 13 Packaged Air-Cooled Refrigerant Compressor and Condenser Units
23 62 23 Packaged Water-Cooled Refrigerant Compressor and Condenser Units

23 63 00 Refrigerant Condensers
23 63 13 Air-Cooled Refrigerant Condensers
23 63 23 Water-Cooled Refrigerant Condensers
23 63 33 Evaporative Refrigerant Condensers

23 64 00 Packaged Water Chillers
23 64 13 Absorption Water Chillers
23 64 13.13 Direct-Fired Absorption Water Chillers
23 64 13.16 Indirect-Fired Absorption Water Chillers
23 64 16 Centrifugal Water Chillers
23 64 16.13 Air-Cooled Centrifugal Water Chillers
23 64 16.16 Water-Cooled Centrifugal Water Chillers
23 64 19 Reciprocating Water Chillers
23 64 23 Scroll Water Chillers
23 64 26 Rotary-Screw Water Chillers

23 65 00 Cooling Towers
23 65 13 Forced-Draft Cooling Towers
23 65 13.13 Open-Circuit, Forced-Draft Cooling Towers
23 65 13.16 Closed-Circuit, Forced-Draft Cooling Towers
23 65 16 Natural-Draft Cooling Towers
23 65 23 Field-Erected Cooling Towers
23 65 33 Liquid Coolers

23 70 00 Central HVAC Equipment
23 71 00 Thermal Storage
23 71 13 Thermal Heat Storage
23 71 13.13 Room Storage Heaters for Thermal Storage
23 71 13.16 Heat-Pump Boosters for Thermal Storage
23 71 13.19 Central Furnace Heat-Storage Units
23 71 13.23 Pressurized-Water Thermal Storage Tanks
23 71 16 Chilled-Water Thermal Storage
23 71 19 Ice Storage
23 71 19.13 Internal Ice-on-Coil Thermal Storage
23 71 19.16 External Ice-on-Coil Thermal Storage
23 71 19.19 Encapsulated-Ice Thermal Storage
23 71 19.23 Ice-Harvesting Thermal Storage
23 71 19.26 Ice-Slurry Thermal Storage

23 72 00 **Air-to-Air Energy Recovery Equipment**
23 72 13 Heat-Wheel Air-to-Air Energy-Recovery Equipment
23 72 16 Heat-Pipe Air-to-Air Energy-Recovery Equipment
23 72 19 Fixed-Plate Air-to-Air Energy-Recovery Equipment
23 72 23 Packaged Air-to-Air Energy-Recovery Units

23 73 00 **Indoor Central-Station Air-Handling Units**
23 73 13 Modular Indoor Central-Station Air-Handling Units
23 73 23 Custom Indoor Central-Station Air-Handling Units
23 73 33 Indoor Indirect Fuel-Fired Heating and Ventilating Units
23 73 33.13 Indoor Indirect Oil-Fired Heating and Ventilating Units
23 73 33.16 Indoor Indirect Gas-Fired Heating and Ventilating Units
23 73 39 Indoor, Direct Gas-Fired Heating and Ventilating Units

23 74 00 **Packaged Outdoor HVAC Equipment**
23 74 13 Packaged, Outdoor, Central-Station Air-Handling Units
23 74 23 Packaged, Outdoor, Heating-Only Makeup-Air Units
23 74 23.13 Packaged, Direct-Fired, Outdoor, Heating-Only Makeup-Air Units
23 74 23.16 Packaged, Indirect-Fired, Outdoor, Heating-Only Makeup-Air Units
23 74 33 Dedicated Outdoor-Air Units

23 75 00 **Custom-Packaged Outdoor HVAC Equipment**
23 75 13 Custom-Packaged, Outdoor, Central-Station Air-Handling Units
23 75 23 Custom-Packaged, Outdoor, Heating and Ventilating Makeup-Air Units
23 75 33 Custom-Packaged, Outdoor, Heating and Cooling Makeup Air-Conditioners

23 76 00 **Evaporative Air-Cooling Equipment**
23 76 13 Direct Evaporative Air Coolers
23 76 16 Indirect Evaporative Air Coolers
23 76 19 Combined Direct and Indirect Evaporative Air Coolers

23 80 00 **Decentralized HVAC Equipment**
23 81 00 **Decentralized Unitary HVAC Equipment**
23 81 13 Packaged Terminal Air-Conditioners
23 81 16 Room Air-Conditioners
23 81 19 Self-Contained Air-Conditioners
23 81 19.13 Small-Capacity Self-Contained Air-Conditioners
23 81 19.16 Large-Capacity Self-Contained Air-Conditioners
23 81 23 Computer-Room Air-Conditioners
23 81 26 Split-System Air-Conditioners
23 81 26.13 Small-Capacity Split-System Air-Conditioners
23 81 26.16 Large-Capacity Split-System Air-Conditioners
23 81 29 Variable Refrigerant Flow HVAC Systems
23 81 43 Air-Source Unitary Heat Pumps
23 81 46 Water-Source Unitary Heat Pumps

23 82 00 **Convection Heating and Cooling Units**
23 82 13 Valance Heating and Cooling Units
23 82 14 Chilled Beams
23 82 16 Air Coils
23 82 19 Fan Coil Units
23 82 23 Unit Ventilators
23 82 26 Induction Units
23 82 29 Radiators
23 82 33 Convectors
23 82 36 Finned-Tube Radiation Heaters
23 82 39 Unit Heaters
23 82 39.13 Cabinet Unit Heaters
23 82 39.16 Propeller Unit Heaters
23 82 39.19 Wall and Ceiling Unit Heaters
23 82 41 Water-to-Water Heat Pumps

23 83 00 Radiant Heating Units
23 83 13 Radiant-Heating Electric Cables
23 83 13.16 Radiant-Heating Electric Mats
23 83 16 Radiant-Heating Hydronic Piping
23 83 23 Radiant-Heating Electric Panels
23 83 33 Electric Radiant Heaters

23 84 00 Humidity Control Equipment
23 84 13 Humidifiers
23 84 13.13 Heated-Pan Humidifiers
23 84 13.16 Wetted-Element Humidifiers
23 84 13.19 Atomizing Humidifiers
23 84 13.23 Direct-Steam-Injection Humidifiers
23 84 13.26 Jacketed, Steam Humidifiers
23 84 13.29 Self-Contained Steam Humidifiers
23 84 13.33 Portable Humidifiers
23 84 16 Mechanical Dehumidification Units
23 84 16.13 Outdoor, Mechanical Dehumidification Units
23 84 16.16 Indoor, Mechanical Dehumidification Units
23 84 16.33 Portable Dehumidifiers
23 84 19 Desiccant Dehumidification Units
25 00 00 Integrated Automation

25 01 00 Operation and Maintenance of Integrated Automation
   25 01 10 Operation and Maintenance of Integrated Automation Network Equipment
   25 01 20 Operation and Maintenance of Integrated Equipment
   25 01 30 Operation and Maintenance of Integrated Automation Instrumentation and Terminal Devices
   25 01 90 Diagnostic Systems for Integrated Automation

25 05 00 Common Work Results for Integrated Automation
   25 05 13 Conductors and Cables for Integrated Automation
   25 05 26 Grounding and Bonding for Integrated Automation
   25 05 28 Pathways for Integrated Automation
   25 05 28.29 Hangers and Supports for Integrated Automation
   25 05 28.33 Conduits and Backboxes for Integrated Automation
   25 05 28.36 Cable Trays for Integrated Automation
   25 05 28.39 Surface Raceways for Integrated Automation
   25 05 48 Vibration and Seismic Controls for Integrated Automation
   25 05 53 Identification for Integrated Automation

25 06 00 Schedules for Integrated Automation
   25 06 11 Schedules for Integrated Automation Network
   25 06 12 Schedules for Integrated Automation Network Gateways
   25 06 13 Schedules for Integrated Automation Control and Monitoring Network
   25 06 14 Schedules for Integrated Automation Local Control Units
   25 06 30 Schedules for Integrated Automation Instrumentation and Terminal Devices

25 08 00 Commissioning of Integrated Automation

25 10 00 Integrated Automation Network Equipment

25 11 00 Integrated Automation Network Devices
   25 11 13 Integrated Automation Network Servers
   25 11 16 Integrated Automation Network Routers, Bridges, Switches, Hubs, and Modems
   25 11 19 Integrated Automation Network Operator Workstations

25 12 00 Integrated Automation Network Gateways
   25 12 13 Hardwired Integration Network Gateways
   25 12 16 Direct-Protocol Integration Network Gateways
   25 12 19 Neutral-Protocol Integration Network Gateways
   25 12 23 Client-Server Information/Database Integration Network Gateways

25 13 00 Integrated Automation Control and Monitoring Network
   25 13 13 Integrated Automation Control and Monitoring Network Supervisory Control
   25 13 16 Integrated Automation Control and Monitoring Network Integration Panels
   25 13 19 Integrated Automation Control and Monitoring Network Interoperability

25 14 00 Integrated Automation Local Control Units
   25 14 13 Integrated Automation Remote Control Panels
   25 14 16 Integrated Automation Application-Specific Control Panels
   25 14 19 Integrated Automation Terminal Control Units
   25 14 23 Integrated Automation Field Equipment Panels

25 15 00 Integrated Automation Software
   25 15 13 Integrated Automation Software for Network Gateways
   25 15 16 Integrated Automation Software for Control and Monitoring Networks
25 15 19 Integrated Automation Software for Local Control Units

**25 30 00 Integrated Automation Instrumentation and Terminal Devices**

25 31 00 Integrated Automation Instrumentation and Terminal Devices for Facility Equipment

25 32 00 Integrated Automation Instrumentation and Terminal Devices for Conveying Equipment

25 33 00 Integrated Automation Instrumentation and Terminal Devices for Fire-Suppression Systems

25 34 00 Integrated Automation Instrumentation and Terminal Devices for Plumbing

25 35 00 Integrated Automation Instrumentation and Terminal Devices for HVAC

  25 35 13 Integrated Automation Actuators and Operators
  25 35 16 Integrated Automation Sensors and Transmitters
  25 35 19 Integrated Automation Control Valves
  25 35 23 Integrated Automation Control Dampers
  25 35 26 Integrated Automation Compressed Air Supply

25 36 00 Integrated Automation Instrumentation and Terminal Devices for Electrical Systems

  25 36 13 Integrated Automation Power Meters
  25 36 16 Integrated Automation KW Transducers
  25 36 19 Integrated Automation Current Sensors
  25 36 23 Integrated Automation Battery Monitors
  25 36 26 Integrated Automation Lighting Relays
  25 36 29 Integrated Automation UPS Monitors

25 37 00 Integrated Automation Instrumentation and Terminal Devices for Communications Systems

25 38 00 Integrated Automation Instrumentation and Terminal Devices for Electronic Safety and Security Systems

**25 50 00 Integrated Automation Facility Controls**

25 51 00 Integrated Automation Control of Facility Equipment

25 52 00 Integrated Automation Control of Conveying Equipment

25 53 00 Integrated Automation Control of Fire-Suppression Systems

25 54 00 Integrated Automation Control of Plumbing

25 55 00 Integrated Automation Control of HVAC

25 56 00 Integrated Automation Control of Electrical Systems

25 57 00 Integrated Automation Control of Communications Systems
25 58 00  Integrated Automation Control of Electronic Safety and Security Systems
25 90 00  Integrated Automation Control Sequences
          25 91 00  Integrated Automation Control Sequences for Facility Equipment
          25 92 00  Integrated Automation Control Sequences for Conveying Equipment
          25 93 00  Integrated Automation Control Sequences for Fire-Suppression Systems
          25 94 00  Integrated Automation Control Sequences for Plumbing
          25 95 00  Integrated Automation Control Sequences for HVAC
          25 96 00  Integrated Automation Control Sequences for Electrical Systems
          25 97 00  Integrated Automation Control Sequences for Communications Systems
          25 98 00  Integrated Automation Control Sequences for Electronic Safety and Security Systems
26 00 00  Electrical
26 01 00  Operation and Maintenance of Electrical Systems
26 01 10  Operation and Maintenance of Medium-Voltage Electrical Distribution
26 01 20  Operation and Maintenance of Low-Voltage Electrical Distribution
26 01 26  Maintenance Testing of Electrical Systems
26 01 30  Operation and Maintenance of Facility Electrical Power Generating and Storing Equipment
26 01 40  Operation and Maintenance of Electrical and Cathodic Protection Systems
26 01 50  Operation and Maintenance of Lighting
26 01 50.51  Luminaire Relamping
26 01 50.81  Luminaire Replacement

26 05 00  Common Work Results for Electrical
26 05 13  Medium-Voltage Cables
26 05 13.13  Medium-Voltage Open Conductors
26 05 13.16  Medium-Voltage, Single- and Multi-Conductor Cables
26 05 19  Low-Voltage Electrical Power Conductors and Cables
26 05 19.13  Undercarpet Electrical Power Cables
26 05 19.23  Manufactured Wiring Assemblies
26 05 23  Control-Voltage Electrical Power Cables
26 05 26  Grounding and Bonding for Electrical Systems
26 05 29  Hangers and Supports for Electrical Systems
26 05 33  Raceway and Boxes for Electrical Systems
26 05 33.13  Conduit for Electrical Systems
26 05 33.16  Boxes for Electrical Systems
26 05 33.23  Surface raceways for Electrical Systems
26 05 36  Cable Trays for Electrical Systems
26 05 39  Underfloor Raceways for Electrical Systems
26 05 43  Underground Ducts and Raceways for Electrical Systems
26 05 46  Utility Poles for Electrical Systems
26 05 48  Vibration and Seismic Controls for Electrical Systems
26 05 53  Identification for Electrical Systems
26 05 73  Overcurrent Protective Device Coordination Study
26 05 83  Wiring Connections

26 06 00  Schedules for Electrical
26 06 10  Schedules for Medium-Voltage Electrical Distribution
26 06 20  Schedules for Low-Voltage Electrical Distribution
26 06 20.13  Electrical Switchboard Schedule
26 06 20.16  Electrical Panelboard Schedule
26 06 20.19  Electrical Motor-Control Center Schedule
26 06 20.23  Electrical Circuit Schedule
26 06 20.26  Wiring Device Schedule
26 06 30  Schedules for Facility Electrical Power Generating and Storing Equipment
26 06 40  Schedules for Electrical and Cathodic Protection Systems
26 06 50  Schedules for Lighting
26 06 50.13  Lighting Panelboard Schedule
26 06 50.16  Lighting Fixture Schedule

26 08 00  Commissioning of Electrical Systems
26 09 00  Instrumentation and Control for Electrical Systems
26 09 13  Electrical Power Monitoring
26 09 15  Peak Load Controllers
26 09 16  Electrical Controls and Relays  
26 09 17  Programmable Controllers  
26 09 19  Enclosed Contactors  
26 09 23  Lighting Control Devices  
26 09 26  Lighting Control Panelboards  
26 09 33  Central Dimming Controls  
26 09 33.13  Multichannel Remote-Controlled Dimmers  
26 09 33.16  Remote-Controlled Dimming Stations  
26 09 36  Modular Dimming Controls  
26 09 36.13  Manual Modular Dimming Controls  
26 09 36.16  Integrated Multipreset Modular Dimming Controls  
26 09 43  Network Lighting Controls  
26 09 43.13  Digital-Network Lighting Controls  
26 09 43.16  Addressable Fixture Lighting Control  
26 09 43.19  Wireless Network Lighting Controls  
26 09 61  Theatrical Lighting Controls  

26 10 00  Medium-Voltage Electrical Distribution  

26 11 00  Substations  
26 11 13  Primary Unit Substations  
26 11 16  Secondary Unit Substations  

26 12 00  Medium-Voltage Transformers  
26 12 13  Liquid-Filled, Medium-Voltage Transformers  
26 12 16  Dry-Type, Medium-Voltage Transformers  
26 12 19  Pad-Mounted, Liquid-Filled, Medium-Voltage Transformers  

26 13 00  Medium-Voltage Switchgear  
26 13 13  Medium-Voltage Circuit Breaker Switchgear  
26 13 16  Medium-Voltage Fusible Interrupter Switchgear  
26 13 19  Medium-Voltage Vacuum Interrupter Switchgear  
26 13 23  Medium-Voltage Metal-Enclosed Switchgear  
26 13 26  Medium-Voltage Metal-Clad Switchgear  
26 13 29  Medium-Voltage Compartmentalized Switchgear  

26 16 00  Medium-Voltage Metering  

26 18 00  Medium-Voltage Circuit Protection Devices  
26 18 13  Medium-Voltage Cutouts  
26 18 16  Medium-Voltage Fuses  
26 18 19  Medium-Voltage Lightning Arresters  
26 18 23  Medium-Voltage Surge Arresters  
26 18 26  Medium-Voltage Reclosers  
26 18 29  Medium-Voltage Enclosed Bus  
26 18 33  Medium-Voltage Enclosed Fuse Cutouts  
26 18 36  Medium-Voltage Enclosed Fuses  
26 18 39  Medium-Voltage Motor Controllers  

26 20 00  Low-Voltage Electrical Transmission  

26 21 00  Low-Voltage Electrical Service Entrance  
26 21 13  Low-Voltage Overhead Electrical Service Entrance  
26 21 16  Low-Voltage Underground Electrical Service Entrance  

26 22 00  Low-Voltage Transformers  
26 22 13  Low-Voltage Distribution Transformers
26 22 16 Low-Voltage Buck-Boost Transformers
26 22 19 Control and Signal Transformers
26 23 00 Low-Voltage Switchgear
26 23 13 Paralleling Low-Voltage Switchgear
26 24 00 Switchboards and Panelboards
26 24 13 Switchboards
26 24 16 Panelboards
26 24 19 Motor-Control Centers
26 25 00 Enclosed Bus Assemblies
26 26 00 Power Distribution Units
26 27 00 Low-Voltage Distribution Equipment
26 27 13 Electricity Metering
26 27 16 Electrical Cabinets and Enclosures
26 27 19 Multi-Outlet Assemblies
26 27 23 Indoor Service Poles
26 27 26 Wiring Devices
26 27 73 Door Chimes
26 28 00 Low-Voltage Circuit Protective Devices
26 28 13 Fuses
26 28 16 Enclosed Switches and Circuit Breakers
26 28 16.13 Enclosed Circuit Breakers
26 28 16.16 Enclosed Switches
26 29 00 Low-Voltage Controllers
26 29 13 Enclosed Controllers
26 29 13.13 Across-the-Line Motor Controllers
26 29 13.16 Reduced-Voltage Motor Controllers
26 29 23 Variable-Frequency Motor Controllers
26 29 33 Controllers for Fire Pump Drivers
26 29 33.13 Full-Service Controllers for Fire Pump Electric-Motor Drivers
26 29 33.16 Limited-Service Controllers for Fire Pump Electric-Motor Drivers
26 29 33.19 Controllers for Fire Pump Diesel Engine Drivers
26 30 00 Facility Electrical Power Generating and Storing Equipment
26 31 00 Photovoltaic Collectors
26 32 00 Packaged Generator Assemblies
26 32 13 Engine Generators
26 32 13.13 Diesel-Engine-Driven Generator Sets
26 32 13.16 Gas-Engine-Driven Generator Sets
26 32 13.26 Gas-Turbine Engine-Driven Generators
26 32 16 Steam-Turbine Generators
26 32 19 Hydro-Turbine Generators
26 32 23 Wind Energy Equipment
26 32 26 Frequency Changers
26 32 29 Rotary Converters
26 32 33 Rotary Uninterruptible Power Units
26 32 36 Resistive Load Banks
26 33 00 Battery Equipment
26 33 13 Batteries
26 33 16 Battery Racks
26 33 19 Battery Units
26 33 23 Central Battery Equipment
26 33 33 Static Power Converters
26 33 43 Battery Chargers
26 33 46 Battery Monitoring
26 33 53 Static Uninterruptible Power Supply

26 35 00 Power Filters and Conditioners
26 35 13 Capacitors
26 35 16 Chokes and Inductors
26 35 23 Electromagnetic-Interference Filters
26 35 26 Harmonic Filters
26 35 33 Power Factor Correction Equipment
26 35 36 Slip Controllers
26 35 43 Static-Frequency Converters
26 35 46 Radio-Frequency-Interference Filters
26 35 53 Voltage Regulators

26 36 00 Transfer Switches
26 36 13 Manual Transfer Switches
26 36 23 Automatic Transfer Switches

26 40 00 Electrical and Cathodic Protection

26 41 00 Facility Lightning Protection
26 41 13 Lightning Protection for Structures
26 41 13.13 Lightning Protection for Buildings
26 41 16 Lightning Prevention and Dissipation
26 41 19 Early Streamer Emission Lightning Protection
26 41 23 Lightning Protection Surge Arresters and Suppressors

26 42 00 Cathodic Protection
26 42 13 Passive Cathodic Protection for Underground and Submerged Piping
26 42 16 Passive Cathodic Protection for Underground Storage Tank

26 43 00 Surge Protective Devices
26 43 13 Surge Protective Devices for Low-Voltage Electrical Power Circuits

26 50 00 Lighting

26 51 00 Interior Lighting
26 51 13 Interior Lighting Fixtures, Lamps, And Ballasts

26 52 00 Emergency Lighting

26 53 00 Exit Signs

26 54 00 Classified Location Lighting

26 55 00 Special Purpose Lighting
26 55 23 Outline Lighting
26 55 29 Underwater Lighting
26 55 33 Hazard Warning Lighting
26 55 36 Obstruction Lighting
26 55 39 Helipad Lighting
26 55 53 Security Lighting
26 55 59 Display Lighting
26 55 61  Theatrical Lighting
26 55 63  Detention Lighting
26 55 70  Healthcare Lighting
26 55 83  Broadcast Lighting

26 56 00  Exterior Lighting
26 56 13  Lighting Poles and Standards
26 56 16  Parking Lighting
26 56 19  Roadway Lighting
26 56 23  Area Lighting
26 56 26  Landscape Lighting
26 56 29  Site Lighting
26 56 33  Walkway Lighting
26 56 36  Flood Lighting
26 56 68  Exterior Athletic Lighting
## 27 00 00 Communications

### 27 01 00 Operation and Maintenance of Communications Systems

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 01 10</td>
<td>Operation and Maintenance of Structured Cabling and Enclosures</td>
</tr>
<tr>
<td>27 01 20</td>
<td>Operation and Maintenance of Data Communications</td>
</tr>
<tr>
<td>27 01 30</td>
<td>Operation and Maintenance of Voice Communications</td>
</tr>
<tr>
<td>27 01 40</td>
<td>Operation and Maintenance of Audio-Video Communications</td>
</tr>
<tr>
<td>27 01 50</td>
<td>Operation and Maintenance of Distributed Communications and Monitoring</td>
</tr>
</tbody>
</table>

### 27 05 00 Common Work Results for Communications

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 05 13</td>
<td>Communications Services</td>
</tr>
<tr>
<td>27 05 13.13</td>
<td>Dialtone Services</td>
</tr>
<tr>
<td>27 05 13.23</td>
<td>T1 Services</td>
</tr>
<tr>
<td>27 05 13.33</td>
<td>DSL Services</td>
</tr>
<tr>
<td>27 05 13.43</td>
<td>Cable Services</td>
</tr>
<tr>
<td>27 05 13.53</td>
<td>Satellite Services</td>
</tr>
<tr>
<td>27 05 26</td>
<td>Grounding and Bonding for Communications Systems</td>
</tr>
<tr>
<td>27 05 28</td>
<td>Pathways for Communications Systems</td>
</tr>
<tr>
<td>27 05 29</td>
<td>Hangers and Supports for Communications Systems</td>
</tr>
<tr>
<td>27 05 33</td>
<td>Conduits and Backboxes for Communications Systems</td>
</tr>
<tr>
<td>27 05 36</td>
<td>Cable Trays for Communications Systems</td>
</tr>
<tr>
<td>27 05 39</td>
<td>Surface Raceways for Communications Systems</td>
</tr>
<tr>
<td>27 05 43</td>
<td>Underground Ducts and Raceways for Communications Systems</td>
</tr>
<tr>
<td>27 05 46</td>
<td>Utility Poles for Communications Systems</td>
</tr>
<tr>
<td>27 05 48</td>
<td>Vibration and Seismic Controls for Communications Systems</td>
</tr>
<tr>
<td>27 05 53</td>
<td>Identification for Communications Systems</td>
</tr>
</tbody>
</table>

### 27 06 00 Schedules for Communications

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 06 10</td>
<td>Schedules for Structured Cabling and Enclosures</td>
</tr>
<tr>
<td>27 06 20</td>
<td>Schedules for Data Communications</td>
</tr>
<tr>
<td>27 06 30</td>
<td>Schedules for Voice Communications</td>
</tr>
<tr>
<td>27 06 40</td>
<td>Schedules for Audio-Video Communications</td>
</tr>
<tr>
<td>27 06 50</td>
<td>Schedules for Distributed Communications and Monitoring</td>
</tr>
</tbody>
</table>

### 27 08 00 Commissioning of Communications

### 27 10 00 Structured Cabling

### 27 11 00 Communications Equipment Room Fittings

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 11 13</td>
<td>Communications Entrance Protection</td>
</tr>
<tr>
<td>27 11 16</td>
<td>Communications Cabinets, Racks, Frames, and Enclosures</td>
</tr>
<tr>
<td>27 11 19</td>
<td>Communications Termination Blocks and Patch Panels</td>
</tr>
<tr>
<td>27 11 23</td>
<td>Communications Cable Management and Ladder Rack</td>
</tr>
<tr>
<td>27 11 26</td>
<td>Communications Rack Mounted Power Protection and Power Strips</td>
</tr>
</tbody>
</table>

### 27 13 00 Communications Backbone Cabling

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 13 13</td>
<td>Communications Copper Backbone Cabling</td>
</tr>
<tr>
<td>27 13 13.13</td>
<td>Communications Copper Cable Splicing and Terminations</td>
</tr>
<tr>
<td>27 13 23</td>
<td>Communications Optical Fiber Backbone Cabling</td>
</tr>
<tr>
<td>27 13 23.13</td>
<td>Communications Optical Fiber Splicing and Terminations</td>
</tr>
<tr>
<td>27 13 33</td>
<td>Communications Coaxial Backbone Cabling</td>
</tr>
<tr>
<td>27 13 33.13</td>
<td>Communications Coaxial Splicing and Terminations</td>
</tr>
<tr>
<td>27 13 43</td>
<td>Communications Services Cabling</td>
</tr>
<tr>
<td>27 13 43.13</td>
<td>Dialtone Services Cabling</td>
</tr>
</tbody>
</table>
27 13 43.23 T1 Services Cabling
27 13 43.33 DSL Services Cabling
27 13 43.43 Cable Services Cabling
27 13 43.53 Satellite Services Cabling

27 15 00 Communications Horizontal Cabling
27 15 00.16 Voice Communications Horizontal Cabling
27 15 00.19 Data Communications Horizontal Cabling
27 15 00.23 Audio-Video Communications Horizontal Cabling
27 15 00.39 Patient Monitoring and Telemetry Communications Horizontal Cabling
27 15 00.43 Nurse Call and Intercom Communications Horizontal Cabling
27 15 00.46 Paging Communications Horizontal Cabling
27 15 00.49 Intermediate Frequency/Radio Frequency Communications Horizontal Cabling

27 15 00.53 Antennas Communications Horizontal Cabling
27 15 13 Communications Copper Horizontal Cabling
27 15 23 Communications Optical Fiber Horizontal Cabling
27 15 33 Communications Coaxial Horizontal Cabling
27 15 43 Communications Faceplates and Connectors

27 16 00 Communications Connecting Cords, Devices, and Adapters
27 16 13 Communications Custom Cable Assemblies
27 16 16 Communications Media Converters, Adapters, and Transceivers
27 16 19 Communications Patch Cords, Station Cords, and Cross Connect Wire

27 20 00 Data Communications
27 21 00 Data Communications Network Equipment
27 21 13 Data Communications Firewalls
27 21 16 Data Communications Routers, CSU/DSU, Multiplexers, Codecs, and Modems
27 21 26 Data Communications Network Management
27 21 29 Data Communications Switches and Hubs
27 21 33 Data Communications Wireless Access Points

27 22 00 Data Communications Hardware
27 22 13 Data Communications Mainframes
27 22 16 Data Communications Storage and Backup
27 22 19 Data Communications Servers
27 22 23 Data Communications Desktops
27 22 26 Data Communications Laptops
27 22 29 Data Communications Handhelds

27 24 00 Data Communications Peripheral Data Equipment
27 24 13 Printers
27 24 16 Scanners
27 24 19 External Drives
27 24 23 Audio-Video Devices
27 24 26 Virtual Reality Equipment
27 24 29  Disaster Recovery Equipment
27 25 00  Data Communications Software
27 25 13  Virus Protection Software
27 25 16  Application Suites
27 25 19  Email Software
27 25 23  Graphics/Multimedia Software
27 25 26  Customer Relationship Management Software
27 25 29  Operating System Software
27 25 33  Database Software
27 25 37  Virtual Private Network Software
27 25 39  Internet Conferencing Software
27 26 00  Data Communications Programming and Integration Services
27 26 13  Web Development
27 26 16  Database Development
27 26 19  Application Development
27 26 23  Network Integration Requirements
27 26 26  Data Communications Integration Requirements
27 30 00  Voice Communications
27 31 00  Voice Communications Switching and Routing Equipment
27 31 13  PBX/ Key Systems
27 31 23  Internet Protocol Voice Switches
27 32 00  Voice Communications Terminal Equipment
27 32 13  Telephone Sets
27 32 16  Wireless Transceivers
27 32 23  Elevator Telephones
27 32 26  Ring-Down Emergency Telephones
27 32 29  Facsimiles and Modems
27 32 36  TTY Equipment
27 32 43  Radio Communications Equipment
27 33 00  Voice Communications Messaging
27 33 16  Voice Mail and Auto Attendant
27 33 23  Interactive Voice Response
27 33 26  Facsimile Servers
27 34 00  Call Accounting
27 34 13  Toll Fraud Equipment and Software
27 34 16  Telemanagement Software
27 35 00  Call Management
27 35 13  Digital Voice Announcers
27 35 16  Automatic Call Distributors
27 35 19  Call Status and Management Displays
27 35 23  Dedicated 911 Systems
27 40 00  Audio-Video Communications
27 41 00  Audio-Video Systems
27 41 13  Architecturally Integrated Audio-Video Equipment
27 41 16  Integrated Audio-Video Systems and Equipment
27 41 16.25 Integrated Audio-Video Systems and Equipment for Restaurants and Bars
27 41 16.28 Integrated Audio-Video Systems and Equipment for Conference Rooms
27 41 16.29 Integrated Audio-Video Systems and Equipment for Board Rooms
27 41 16.51 Integrated Audio-Video Systems and Equipment for Classrooms
27 41 16.52 Integrated Audio-Video Systems and Equipment for Religious Facilities
27 41 16.61 Integrated Audio-Video Systems and Equipment for Theaters
27 41 16.62 Integrated Audio-Video Systems and Equipment for Auditoriums
27 41 16.63 Integrated Audio-Video Systems and Equipment for Stadiums and Arenas
27 41 19 Portable Audio-Video Equipment
27 41 23 Audio-Video Accessories
27 41 33 Master Antenna Television Systems
27 41 43 Audio-Video Conferencing

27 42 00 Electronic Digital Systems
27 42 13 Point of Sale Systems
27 42 16 Transportation Information Display Systems
27 42 19 Public Information Systems

27 50 00 Distributed Communications and Monitoring Systems

27 51 00 Distributed Audio-Video Communications Systems
27 51 13 Paging Systems
27 51 13.13 Overhead Paging Systems
27 51 16 Public Address Systems
27 51 19 Sound Masking Systems
27 51 23 Intercommunications and Program Systems
27 51 23.20 Commercial Intercommunications and Program Systems
27 51 23.30 Residential Intercommunications and Program Systems
27 51 23.50 Educational Intercommunications and Program Systems
27 51 23.63 Detention Intercommunications and Program Systems
27 51 23.70 Healthcare Intercommunications and Program Systems
27 51 26 Assistive Listening Systems

27 52 00 Healthcare Communications and Monitoring Systems
27 52 13 Patient Monitoring and Telemetry Systems
27 52 16 Telemedicine Systems
27 52 19 Healthcare Imaging Systems
27 52 23 Nurse Call/Code Blue Systems

27 53 00 Distributed Systems
27 53 13 Clock Systems
27 53 13.13 Wireless Clock Systems
27 53 16 Infrared and Radio Frequency Tracking Systems
27 53 19 Internal Cellular, Paging, and Antenna Systems
28 00 00  **Electronic Safety and Security**

28 01 00  **Operation and Maintenance of Electronic Safety and Security**

28 01 10  Operation and Maintenance of Electronic Access Control and Intrusion Detection

28 01 10.51  Maintenance and Administration of Electronic Access Control and Intrusion Detection

28 01 10.71  Revisions and Upgrades of Electronic Access Control and Intrusion Detection

28 01 20  Operation and Maintenance of Electronic Surveillance

28 01 30  Operation and Maintenance of Electronic Detection and Alarm

28 01 30.51  Maintenance and Administration of Electronic Detection and Alarm

28 01 30.71  Revisions and Upgrades of Electronic Detection and Alarm

28 01 40  Operation and Maintenance of Electronic Monitoring and Control

28 01 40.51  Maintenance and Administration of Electronic Monitoring and Control

28 01 40.71  Revisions and Upgrades of Electronic Monitoring and Control

28 05 00  **Common Work Results for Electronic Safety and Security**

28 05 13  Conductors and Cables for Electronic Safety and Security

28 05 13.13  CCTV Communications Conductors and Cables

28 05 13.16  Access Control Communications Conductors and Cables

28 05 13.19  Intrusion Detection Communications Conductors and Cables

28 05 13.23  Fire Alarm Communications Conductors and Cables

28 05 26  Grounding and Bonding for Electronic Safety and Security

28 05 28  Pathways for Electronic Safety and Security

28 05 28.29  Hangers and Supports for Electronic Safety and Security

28 05 28.33  Conduits and Backboxes for Electronic Safety and Security

28 05 28.36  Cable Trays for Electronic Safety and Security

28 05 28.39  Surface Raceways for Electronic Safety and Security

28 05 48  Vibration and Seismic Controls for Electronic Safety and Security

28 05 53  Identification for Electronic Safety and Security

28 06 00  **Schedules for Electronic Safety and Security**

28 06 10  Schedules for Electronic Access Control and Intrusion Detection

28 06 20  Schedules for Electronic Surveillance

28 06 30  Schedules for Electronic Detection and Alarm

28 06 40  Schedules for Electronic Monitoring and Control

28 08 00  **Commissioning of Electronic Safety and Security**

28 10 00  **Electronic Access Control and Intrusion Detection**

28 13 00  **Access Control**

28 13 13  Access Control Global Applications

28 13 16  Access Control Systems and Database Management

28 13 19  Access Control Systems Infrastructure

28 13 26  Access Control Remote Devices

28 13 26.11  Wireless Access Control Devices

28 13 33  Access Control Interfaces

28 13 33.16  Access Control Interfaces to Access Control Hardware

28 13 33.26  Access Control Interfaces to Intrusion Detection

28 13 33.33  Access Control Interfaces to Video Surveillance

28 13 33.36  Access Control Interfaces to Fire Alarm
Access Control Identification Management Systems
Security Access Detection
Security Access Metal Detectors
Security Access X-Ray Equipment
Security Access Explosive Detection Equipment
Security Access Sniffing Equipment
Access Control Vehicle Identification System

Intrusion Detection
Intrusion Detection Control, GUI, and Logic Systems
Intrusion Detection Systems Infrastructure
Intrusion Detection Remote Devices and Sensors
Intrusion Detection Interfaces
Intrusion Detection Interfaces to Remote Monitoring
Intrusion Detection Interfaces to Access Control Hardware
Intrusion Detection Interfaces to Access Control System
Intrusion Detection Interfaces to Video Surveillance
Intrusion Detection Interfaces to Fire Alarm
Perimeter Security Systems

Electronic Surveillance
Video Surveillance
Video Surveillance Control and Management Systems
Video Surveillance Monitoring and Supervisory Interfaces
Digital Video Recorders and Analog Recording Devices
Video Surveillance Systems Infrastructure
Video Surveillance Remote Positioning Equipment
Video Surveillance Remote Devices and Sensors

Electronic Personal Protection Systems
Electronic Personal Safety Detection Systems
Electronic Personal Safety Alarm Annunciation and Control Systems
Electronic Personal Safety Interfaces to Remote Monitoring
Electronic Personal Safety Emergency Aid Devices

Electronic Detection and Alarm
Fire Detection and Alarm
Digital, Addressable Fire-Alarm Systems
Zoned (DC Loop) Fire-Alarm Systems
Fire Detection and Alarm Control, GUI, and Logic Systems
Fire Detection and Alarm Annunciator Panels and Fire Stations
Fire Detection and Alarm Interfaces
Fire Detection and Alarm Interfaces to Remote Monitoring
Fire Detection and Alarm Interfaces to Access Control Hardware
Fire Detection and Alarm Interfaces to Access Control System
Fire Detection and Alarm Interfaces to Intrusion Detection
Fire Detection and Alarm Interfaces to Video Surveillance
Fire Detection and Alarm Interfaces to Elevator Control
Fire Detection Sensors
Smoke Detection Sensors
Carbon-Monoxide Detection Sensors
Fire Alarm Initiating Devices
Fire Alarm Pull Stations
Fire Alarm Level Detectors Switches
28 31 53.33 Fire Alarm Flow Switches
28 31 53.43 Fire Alarm Pressure Sensors
28 31 63 Fire Alarm Integrated Audio Visual Evacuation Systems
28 31 63.13 Fire Alarm Horns and Strobes

28 32 00 Radiation Detection and Alarm
28 32 13 Radiation Detection and Alarm Control, GUI, and Logic Systems
28 32 23 Radiation Detection and Alarm Integrated Audio Evacuation Systems
28 32 33 Radiation Detection Sensors
28 32 43 Radiation Dosimeters

28 33 00 Gas Detection and Alarm
28 33 13 Gas Detection and Alarm Control, GUI, and Logic Systems
28 33 23 Gas Detection and Alarm Integrated Audio Evacuation Systems
28 33 33 Gas Detection Sensors

28 34 00 Fuel-Oil Detection and Alarm
28 34 13 Fuel-Oil Detection and Alarm Control, GUI, and Logic Systems
28 34 23 Fuel-Oil Detection and Alarm Integrated Audio Evacuation Systems
28 34 33 Fuel-Oil Detection Sensors

28 35 00 Refrigerant Detection and Alarm
28 35 13 Refrigerant Detection and Alarm Control, GUI, and Logic Systems
28 35 23 Refrigerant Detection and Alarm Integrated Audio Evacuation Systems
28 35 33 Refrigerant Detection Sensors

28 36 00 Water Detection and Alarm
28 36 13 Water Detection and Alarm Control, GUI, and Logic Systems
28 36 33 Water Detection Sensors
28 36 43 Building Envelope Water Detection and Alarm

28 39 00 Mass Notification Systems

28 40 00 Electronic Monitoring and Control

28 41 00 Electronic Structural Monitoring Systems

28 46 00 Electronic Detention Monitoring and Control Systems
28 46 13 Hard-Wired Detention Monitoring and Control Systems
28 46 16 Relay-Logic Detention Monitoring and Control Systems
28 46 19 PLC Electronic Detention Monitoring and Control Systems
28 46 23 Computer-Based Detention Monitoring and Control Systems
28 46 26 Discreet-Logic Detention Monitoring and Control Systems
28 46 29 Discreet-Distributed Intelligence Detention Monitoring and Control Systems
### Earthwork

#### 31 00 00 Earthwork

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 01 00</td>
<td>Maintenance of Earthwork</td>
</tr>
<tr>
<td>31 01 10</td>
<td>Maintenance of Clearing</td>
</tr>
<tr>
<td>31 01 20</td>
<td>Maintenance of Earth Moving</td>
</tr>
<tr>
<td>31 01 40</td>
<td>Maintenance of Shoring and Underpinning</td>
</tr>
<tr>
<td>31 01 50</td>
<td>Maintenance of Excavation Support and Protection</td>
</tr>
<tr>
<td>31 01 60</td>
<td>Maintenance of Special Foundations and Load Bearing Elements</td>
</tr>
<tr>
<td>31 01 62</td>
<td>Maintenance of Driven Piles</td>
</tr>
<tr>
<td>31 01 62.61</td>
<td>Driven Pile Repairs</td>
</tr>
<tr>
<td>31 01 63</td>
<td>Maintenance of Bored and Augered Piles</td>
</tr>
<tr>
<td>31 01 63.61</td>
<td>Bored and Augered Pile Repairs</td>
</tr>
<tr>
<td>31 01 70</td>
<td>Maintenance of Tunneling and Mining</td>
</tr>
<tr>
<td>31 01 70.61</td>
<td>Tunnel Leak Repairs</td>
</tr>
<tr>
<td>31 05 00</td>
<td>Common Work Results for Earthwork</td>
</tr>
<tr>
<td>31 05 13</td>
<td>Soils for Earthwork</td>
</tr>
<tr>
<td>31 05 16</td>
<td>Aggregates for Earthwork</td>
</tr>
<tr>
<td>31 05 19</td>
<td>Geosynthetics for Earthwork</td>
</tr>
<tr>
<td>31 05 19.13</td>
<td>Geotextiles for Earthwork</td>
</tr>
<tr>
<td>31 05 19.16</td>
<td>Geomembranes for Earthwork</td>
</tr>
<tr>
<td>31 05 19.19</td>
<td>Geogrids for Earthwork</td>
</tr>
<tr>
<td>31 05 19.23</td>
<td>Geosynthetic Clay Liners</td>
</tr>
<tr>
<td>31 05 19.26</td>
<td>Geocomposites</td>
</tr>
<tr>
<td>31 05 19.29</td>
<td>Geonets</td>
</tr>
<tr>
<td>31 05 23</td>
<td>Cement and Concrete for Earthwork</td>
</tr>
<tr>
<td>31 06 00</td>
<td>Schedules for Earthwork</td>
</tr>
<tr>
<td>31 06 10</td>
<td>Schedules for Clearing</td>
</tr>
<tr>
<td>31 06 20</td>
<td>Schedules for Earth Moving</td>
</tr>
<tr>
<td>31 06 20.13</td>
<td>Trench Dimension Schedule</td>
</tr>
<tr>
<td>31 06 20.16</td>
<td>Backfill Material Schedule</td>
</tr>
<tr>
<td>31 06 40</td>
<td>Schedules for Shoring and Underpinning</td>
</tr>
<tr>
<td>31 06 50</td>
<td>Schedules for Excavation Support and Protection</td>
</tr>
<tr>
<td>31 06 60</td>
<td>Schedules for Special Foundations and Load Bearing Elements</td>
</tr>
<tr>
<td>31 06 60.13</td>
<td>Driven Pile Schedule</td>
</tr>
<tr>
<td>31 06 60.16</td>
<td>Caisson Schedule</td>
</tr>
<tr>
<td>31 06 70</td>
<td>Schedules for Tunneling and Mining</td>
</tr>
<tr>
<td>31 08 00</td>
<td>Commissioning of Earthwork</td>
</tr>
<tr>
<td>31 08 13</td>
<td>Pile Load Testing</td>
</tr>
<tr>
<td>31 08 13.13</td>
<td>Dynamic Pile Load Testing</td>
</tr>
<tr>
<td>31 08 13.16</td>
<td>Static Pile Load Testing</td>
</tr>
<tr>
<td>31 09 00</td>
<td>Geotechnical Instrumentation and Monitoring of Earthwork</td>
</tr>
<tr>
<td>31 09 13</td>
<td>Geotechnical Instrumentation and Monitoring</td>
</tr>
<tr>
<td>31 09 13.13</td>
<td>Groundwater Monitoring During Construction</td>
</tr>
<tr>
<td>31 09 16</td>
<td>Foundation Performance Instrumentation</td>
</tr>
<tr>
<td>31 09 16.26</td>
<td>Bored and Augered Pile Load Tests</td>
</tr>
<tr>
<td>31 10 00</td>
<td>Site Clearing</td>
</tr>
<tr>
<td>31 11 00</td>
<td>Clearing and Grubbing</td>
</tr>
<tr>
<td>31 12 00</td>
<td>Selective Clearing</td>
</tr>
</tbody>
</table>
31 13 00  Selective Tree and Shrub Removal and Trimming
  31 13 13  Selective Tree and Shrub Removal
  31 13 16  Selective Tree and Shrub Trimming

31 14 00  Earth Stripping and Stockpiling
  31 14 13  Soil Stripping and Stockpiling
  31 14 13.13  Soil Stripping
  31 14 13.16  Soil Stockpiling
  31 14 13.23  Topsoil Stripping and Stockpiling
  31 14 16  Sod Stripping and Stockpiling
  31 14 16.13  Sod Stripping
  31 14 16.16  Sod Stockpiling

31 20 00  Earth Moving

31 21 00  Off-Gassing Mitigation
  31 21 13  Radon Mitigation
  31 21 13.13  Radon Venting
  31 21 16  Methane Mitigation
  31 21 16.13  Methane Venting

31 22 00  Grading
  31 22 13  Rough Grading
  31 22 16  Fine Grading
  31 22 16.13  Roadway Subgrade Reshaping
  31 22 19  Finish Grading
  31 22 19.13  Spreading and Grading Topsoil

31 23 00  Excavation and Fill
  31 23 13  Subgrade Preparation
  31 23 16  Excavation
  31 23 16.13  Trenching
  31 23 16.16  Structural Excavation for Minor Structures
  31 23 16.26  Rock Removal
  31 23 19  Dewatering
  31 23 23  Fill
  31 23 23.13  Backfill
  31 23 23.23  Compaction
  31 23 23.33  Flowable Fill
  31 23 23.43  Geofoam
  31 23 33  Trenching and Backfilling

31 24 00  Embankments
  31 24 13  Roadway Embankments
  31 24 16  Railway Embankments

31 25 00  Erosion and Sedimentation Controls
  31 25 14  Stabilization Measures for Erosion and Sedimentation Control
  31 25 14.13  Hydraulically-Applied Erosion Control
  31 25 14.16  Rolled Erosion Control Mats and Blankets
  31 25 24  Structural Measures for Erosion and Sedimentation Control
  31 25 24.13  Rock Barriers
  31 25 34  Retention Measures for Erosion and Sedimentation Controls
  31 25 34.13  Rock Basins

31 30 00  Earthwork Methods

31 31 00  Soil Treatment
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 31 13</td>
<td>Rodent Control</td>
</tr>
<tr>
<td>31 31 13.16</td>
<td>Rodent Control Bait Systems</td>
</tr>
<tr>
<td>31 31 13.19</td>
<td>Rodent Control Traps</td>
</tr>
<tr>
<td>31 31 13.23</td>
<td>Rodent Control Electronic Systems</td>
</tr>
<tr>
<td>31 31 13.26</td>
<td>Rodent Control Repellants</td>
</tr>
<tr>
<td>31 31 16</td>
<td>Termite Control</td>
</tr>
<tr>
<td>31 31 16.13</td>
<td>Chemical Termite Control</td>
</tr>
<tr>
<td>31 31 16.16</td>
<td>Termite Control Bait Systems</td>
</tr>
<tr>
<td>31 31 16.19</td>
<td>Termite Control Barriers</td>
</tr>
<tr>
<td>31 31 19</td>
<td>Vegetation Control</td>
</tr>
<tr>
<td>31 31 19.13</td>
<td>Chemical Vegetation Control</td>
</tr>
<tr>
<td>31 32 00</td>
<td>Soil Stabilization</td>
</tr>
<tr>
<td>31 32 13</td>
<td>Soil Mixing Stabilization</td>
</tr>
<tr>
<td>31 32 13.13</td>
<td>Asphalt Soil Stabilization</td>
</tr>
<tr>
<td>31 32 13.16</td>
<td>Cement Soil Stabilization</td>
</tr>
<tr>
<td>31 32 13.19</td>
<td>Lime Soil Stabilization</td>
</tr>
<tr>
<td>31 32 13.23</td>
<td>Fly-Ash Soil Stabilization</td>
</tr>
<tr>
<td>31 32 13.26</td>
<td>Lime-Fly-Ash Soil Stabilization</td>
</tr>
<tr>
<td>31 32 16</td>
<td>Chemical Treatment Soil Stabilization</td>
</tr>
<tr>
<td>31 32 16.13</td>
<td>Polymer Emulsion Soil Stabilization</td>
</tr>
<tr>
<td>31 32 17</td>
<td>Water Injection Soil Stabilization</td>
</tr>
<tr>
<td>31 32 19</td>
<td>Geosynthetic Soil Stabilization and Layer Separation</td>
</tr>
<tr>
<td>31 32 19.13</td>
<td>Geogrid Soil Stabilization</td>
</tr>
<tr>
<td>31 32 19.16</td>
<td>Geotextile Soil Stabilization</td>
</tr>
<tr>
<td>31 32 19.19</td>
<td>Geogrid Layer Separation</td>
</tr>
<tr>
<td>31 32 19.23</td>
<td>Geotextile Layer Separation</td>
</tr>
<tr>
<td>31 32 23</td>
<td>Pressure Grouting Soil Stabilization</td>
</tr>
<tr>
<td>31 32 23.13</td>
<td>Cementitious Pressure Grouting Soil Stabilization</td>
</tr>
<tr>
<td>31 32 23.16</td>
<td>Chemical Pressure Grouting Soil Stabilization</td>
</tr>
<tr>
<td>31 32 33</td>
<td>Shotcrete Soil Slope Stabilization</td>
</tr>
<tr>
<td>31 32 36</td>
<td>Soil Nailing</td>
</tr>
<tr>
<td>31 32 36.13</td>
<td>Driven Soil Nailing</td>
</tr>
<tr>
<td>31 32 36.16</td>
<td>Grouted Soil Nailing</td>
</tr>
<tr>
<td>31 32 36.19</td>
<td>Corrosion-Protected Soil Nailing</td>
</tr>
<tr>
<td>31 32 36.23</td>
<td>Jet-Grouted Soil Nailing</td>
</tr>
<tr>
<td>31 32 36.26</td>
<td>Launched Soil Nailing</td>
</tr>
<tr>
<td>31 33 00</td>
<td>Rock Stabilization</td>
</tr>
<tr>
<td>31 33 13</td>
<td>Rock Bolting and Grouting</td>
</tr>
<tr>
<td>31 33 23</td>
<td>Rock Slope Netting</td>
</tr>
<tr>
<td>31 33 26</td>
<td>Rock Slope Wire Mesh</td>
</tr>
<tr>
<td>31 33 33</td>
<td>Shotcrete Rock Slope Stabilization</td>
</tr>
<tr>
<td>31 33 43</td>
<td>Vegetated Rock Slope Stabilization</td>
</tr>
<tr>
<td>31 34 00</td>
<td>Soil Reinforcement</td>
</tr>
<tr>
<td>31 34 19</td>
<td>Geosynthetic Soil Reinforcement</td>
</tr>
<tr>
<td>31 34 19.13</td>
<td>Geogrid Soil Reinforcement</td>
</tr>
<tr>
<td>31 34 19.16</td>
<td>Geotextile Soil Reinforcement</td>
</tr>
<tr>
<td>31 34 23</td>
<td>Fiber Soil Reinforcement</td>
</tr>
<tr>
<td>31 34 23.13</td>
<td>Geosynthetic Fiber Soil Reinforcement</td>
</tr>
<tr>
<td>31 35 00</td>
<td>Slope Protection</td>
</tr>
<tr>
<td>31 35 19</td>
<td>Geosynthetic Slope Protection</td>
</tr>
<tr>
<td>31 35 19.13</td>
<td>Geogrid Slope Protection</td>
</tr>
<tr>
<td>31 35 19.16</td>
<td>Geotextile Slope Protection</td>
</tr>
</tbody>
</table>
31 35 19.19  Slope Protection with Mulch Control Netting
31 35 23  Slope Protection with Slope Paving
31 35 23.13  Cast-In-Place Concrete Slope Paving
31 35 23.16  Precast Concrete Slope Paving
31 35 23.19  Concrete Unit Masonry Slope Paving
31 35 26  Containment Barriers
31 35 26.13  Clay Containment Barriers
31 35 26.16  Geomembrane Containment Barriers
31 35 26.23  Bentonite Slurry Trench

31 36 00  Gabions
31 36 13  Gabion Boxes
31 36 19  Gabion Mattresses
31 36 19.13  Vegetated Gabion Mattresses

31 37 00  Riprap
31 37 13  Machined Riprap
31 37 16  Non-Machined Riprap
31 37 16.13  Rubble-Stone Riprap
31 37 16.16  Concrete Unit Masonry Riprap
31 37 16.19  Sacked Sand-Cement Riprap

31 40 00  Shoring and Underpinning

31 41 00  Shoring
31 41 13  Timber Shoring
31 41 16  Sheet Piling
31 41 16.13  Steel Sheet Piling
31 41 16.16  Plastic Sheet Piling
31 41 19  Metal Hydraulic Shoring
31 41 19.13  Aluminum Hydraulic Shoring
31 41 23  Pneumatic Shoring
31 41 33  Trench Shielding

31 43 00  Concrete Raising
31 43 13  Pressure Grouting
31 43 13.13  Concrete Pressure Grouting
31 43 13.16  Polyurethane Pressure Grouting
31 43 16  Compaction Grouting
31 43 19  Mechanical Jacking

31 45 00  Vibroflotation and Densification
31 45 13  Vibroflotation
31 45 16  Densification

31 46 00  Needle Beams
31 46 13  Cantilever Needle Beams

31 48 00  Underpinning
31 48 13  Underpinning Piers
31 48 19  Bracket Piers
31 48 23  Jacked Piers
31 48 33  Micropile Underpinning

31 50 00  Excavation Support and Protection

31 51 00  Anchor Tiebacks
31 51 13  Excavation Soil Anchors
31 51 16  Excavation Rock Anchors
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 52 00</td>
<td><strong>Cofferdams</strong></td>
</tr>
<tr>
<td>31 52 13</td>
<td>Sheet Piling Cofferdams</td>
</tr>
<tr>
<td>31 52 16</td>
<td>Timber Cofferdams</td>
</tr>
<tr>
<td>31 52 19</td>
<td>Precast Concrete Cofferdams</td>
</tr>
<tr>
<td>31 53 00</td>
<td><strong>Cribbing and Walers</strong></td>
</tr>
<tr>
<td>31 53 13</td>
<td>Timber Cribwork</td>
</tr>
<tr>
<td>31 54 00</td>
<td><strong>Ground Freezing</strong></td>
</tr>
<tr>
<td>31 55 00</td>
<td><strong>Slurry Walls</strong></td>
</tr>
<tr>
<td>31 56 13</td>
<td>Bentonite Slurry Walls</td>
</tr>
<tr>
<td>31 56 13.13</td>
<td>Soil-Bentonite Slurry Walls</td>
</tr>
<tr>
<td>31 56 13.16</td>
<td>Cement-Bentonite Slurry Walls</td>
</tr>
<tr>
<td>31 56 13.19</td>
<td>Slag-Cement-Bentonite Slurry Walls</td>
</tr>
<tr>
<td>31 56 13.23</td>
<td>Soil-Cement-Bentonite Slurry Walls</td>
</tr>
<tr>
<td>31 56 13.26</td>
<td>Pozzolan-Bentonite Slurry Walls</td>
</tr>
<tr>
<td>31 56 13.29</td>
<td>Organically-Modified Bentonite Slurry Walls</td>
</tr>
<tr>
<td>31 56 16</td>
<td>Attipulgite Slurry Walls</td>
</tr>
<tr>
<td>31 56 16.13</td>
<td>Soil-Attipulgite Slurry Walls</td>
</tr>
<tr>
<td>31 56 19</td>
<td>Slurry-Geomembrane Composite Slurry Walls</td>
</tr>
<tr>
<td>31 56 23</td>
<td>Lean Concrete Slurry Walls</td>
</tr>
<tr>
<td>31 56 26</td>
<td>Bio-Polymer Trench Drain</td>
</tr>
<tr>
<td>31 60 00</td>
<td><strong>Special Foundations and Load-Bearing Elements</strong></td>
</tr>
<tr>
<td>31 62 00</td>
<td><strong>Driven Piles</strong></td>
</tr>
<tr>
<td>31 62 13</td>
<td>Concrete Piles</td>
</tr>
<tr>
<td>31 62 13.13</td>
<td>Cast-in-Place Concrete Piles</td>
</tr>
<tr>
<td>31 62 13.16</td>
<td>Concrete Displacement Piles</td>
</tr>
<tr>
<td>31 62 13.19</td>
<td>Precast Concrete Piles</td>
</tr>
<tr>
<td>31 62 13.23</td>
<td>Prestressed Concrete Piles</td>
</tr>
<tr>
<td>31 62 13.26</td>
<td>Pressure-Injected Footings</td>
</tr>
<tr>
<td>31 62 16</td>
<td>Steel Piles</td>
</tr>
<tr>
<td>31 62 16.13</td>
<td>Sheet Steel Piles</td>
</tr>
<tr>
<td>31 62 16.16</td>
<td>Steel H Piles</td>
</tr>
<tr>
<td>31 62 16.19</td>
<td>Unfilled Tubular Steel Piles</td>
</tr>
<tr>
<td>31 62 19</td>
<td>Timber Piles</td>
</tr>
<tr>
<td>31 62 23</td>
<td>Composite Piles</td>
</tr>
<tr>
<td>31 62 23.13</td>
<td>Concrete-Filled Steel Piles</td>
</tr>
<tr>
<td>31 62 23.16</td>
<td>Wood and Cast-In-Place Concrete Piles</td>
</tr>
<tr>
<td>31 63 00</td>
<td><strong>Bored Piles</strong></td>
</tr>
<tr>
<td>31 63 13</td>
<td>Bored and Augered Test Piles</td>
</tr>
<tr>
<td>31 63 16</td>
<td>Auger Cast Grout Piles</td>
</tr>
<tr>
<td>31 63 19</td>
<td>Bored and Socketed Piles</td>
</tr>
<tr>
<td>31 63 19.13</td>
<td>Rock Sockets for Piles</td>
</tr>
<tr>
<td>31 63 23</td>
<td>Bored Concrete Piles</td>
</tr>
<tr>
<td>31 63 23.13</td>
<td>Bored and Belled Concrete Piles</td>
</tr>
<tr>
<td>31 63 23.16</td>
<td>Bored Friction Concrete Piles</td>
</tr>
<tr>
<td>31 63 26</td>
<td>Drilled Caissons</td>
</tr>
<tr>
<td>31 63 26.13</td>
<td>Fixed End Caisson Piles</td>
</tr>
<tr>
<td>31 63 26.16</td>
<td>Concrete Caissons for Marine Construction</td>
</tr>
<tr>
<td>31 63 29</td>
<td>Drilled Concrete Piers and Shafts</td>
</tr>
<tr>
<td>31 63 29.13</td>
<td>Uncased Drilled Concrete Piers</td>
</tr>
</tbody>
</table>
31 63 29.16  Cased Drilled Concrete Piers
31 63 33  Drilled Micropiles

31 64 00    Caissons
31 64 13    Box Caissons
31 64 16    Excavated Caissons
31 64 19    Floating Caissons
31 64 23    Open Caissons
31 64 26    Pneumatic Caissons
31 64 29    Sheeted Caissons

31 66 00    Special Foundations
31 66 13    Special Piles
31 66 13.13 Rammed Aggregate Piles
31 66 15    Helical Foundation Piles
31 66 16    Special Foundation Walls
31 66 16.13 Anchored Foundation Walls
31 66 16.23 Concrete Cribbing Foundation Walls
31 66 16.26 Metal Cribbing Foundation Walls
31 66 16.33 Manufactured Modular Foundation Walls
31 66 16.43 Mechanically Stabilized Earth Foundation Walls
31 66 16.46 Slurry Diaphragm Foundation Walls
31 66 16.53 Soldier-Beam Foundation Walls
31 66 16.56 Permanently-Anchored Soldier-Beam Foundation Walls
31 66 19    Refrigerated Foundations

31 68 00    Foundation Anchors
31 68 13    Rock Foundation Anchors
31 68 16    Helical Foundation Anchors

31 70 00    Tunneling and Mining
31 71 00    Tunnel Excavation
31 71 13    Shield Driving Tunnel Excavation
31 71 16    Tunnel Excavation by Drilling and Blasting
31 71 19    Tunnel Excavation by Tunnel Boring Machine
31 71 23    Tunneling by Cut and Cover

31 72 00    Tunnel Support Systems
31 72 13    Rock Reinforcement and Initial Support
31 72 16    Steel Ribs and Lagging

31 73 00    Tunnel Grouting
31 73 13    Cement Tunnel Grouting
31 73 16    Chemical Tunnel Grouting

31 74 00    Tunnel Construction
31 74 13    Cast-in-Place Concrete Tunnel Lining
31 74 16    Precast Concrete Tunnel Lining
31 74 19    Shotcrete Tunnel Lining

31 75 00    Shaft Construction
31 75 13    Cast-in-Place Concrete Shaft Lining
31 75 16    Precast Concrete Shaft Lining

31 77 00    Submersible Tube Tunnels
31 77 13    Trench Excavation for Submerged Tunnels
31 77 16    Tube Construction (Outfitting Tunnel Tubes)
31 77 19    Floating and Laying Submerged Tunnels
32 00 00  Exterior Improvements
32 01 00  Operation and Maintenance of Exterior Improvements

32 01 11  Paving Cleaning
32 01 11.51  Rubber and Paint Removal from Paving
32 01 11.52  Rubber Removal from Paving
32 01 11.53  Paint Removal from Paving
32 01 13  Flexible Paving Surface Treatment
32 01 13.61  Slurry Seal (Latex Modified)
32 01 13.62  Asphalt Surface Treatment
32 01 16  Flexible Paving Rehabilitation
32 01 16.71  Cold Milling Asphalt Paving
32 01 16.72  Asphalt Paving Reuse
32 01 16.73  In Place Cold Reused Asphalt Paving
32 01 16.74  In Place Hot Reused Asphalt Paving
32 01 16.75  Heater Scarifying of Asphalt Paving
32 01 17  Flexible Paving Repair
32 01 17.61  Sealing Cracks in Asphalt Paving
32 01 17.62  Stress-Absorbing Membrane Interlayer
32 01 19  Rigid Paving Surface Treatment
32 01 19.61  Sealing of Joints in Rigid Paving
32 01 19.62  Patching of Rigid Paving
32 01 23  Base Course Reconditioning
32 01 26  Rigid Paving Rehabilitation
32 01 26.71  Grooving of Concrete Paving
32 01 26.72  Grinding of Concrete Paving
32 01 26.73  Milling of Concrete Paving
32 01 26.74  Concrete Overlays
32 01 26.75  Concrete Paving Reuse
32 01 29  Rigid Paving Repair
32 01 29.61  Partial Depth Patching of Rigid Paving
32 01 29.62  Concrete Paving Raising
32 01 29.63  Subsealing and Stabilization
32 01 30  Operation and Maintenance of Site Improvements
32 01 30.13  Snow Removal
32 01 80  Operation and Maintenance of Irrigation
32 01 90  Operation and Maintenance of Planting
32 01 90.13  Fertilizing
32 01 90.16  Amending Soils
32 01 90.19  Mowing
32 01 90.23  Pruning
32 01 90.26  Watering
32 01 90.29  Topsoil Preservation
32 01 90.33  Tree and Shrub Preservation

32 05 00  Common Work Results for Exterior Improvements
32 05 13  Soils for Exterior Improvements
32 05 16  Aggregates for Exterior Improvements
32 05 19  Geosynthetics for Exterior Improvements
32 05 19.13  Geotextiles for Exterior Improvements
32 05 19.16  Geomembranes for Exterior Improvements
32 05 19.19  Geogrids for Exterior Improvements
32 05 23  Cement and Concrete for Exterior Improvements
32 05 33  Common Work Results for Planting
32 06 00  Schedules for Exterior Improvements
    32 06 10  Schedules for Bases, Ballasts, and Paving
    32 06 10.13  Pedestrian Walkway Schedule
    32 06 30  Schedules for Site Improvements
    32 06 30.13  Retaining Wall Schedule
    32 06 80  Schedules for Irrigation
    32 06 80.13  Irrigation Piping Schedule
    32 06 90  Schedules for Planting
    32 06 90.13  Planting Schedule

32 08 00  Commissioning of Exterior Improvements

32 10 00  Bases, Ballasts, and Paving

32 11 00  Base Courses
    32 11 13  Subgrade Modifications
    32 11 13.13  Lime-Treated Subgrades
    32 11 13.16  Bituminous-Treated Subgrades
    32 11 16  Subbase Courses
    32 11 16.13  Sand-Clay Subbase Courses
    32 11 16.16  Aggregate Subbase Courses
    32 11 23  Aggregate Base Courses
    32 11 23.13  Sand-Clay Base Courses
    32 11 23.23  Base Course Drainage Layers
    32 11 26  Asphaltic Base Courses
    32 11 26.13  Plant Mix Asphaltic Base Courses
    32 11 26.16  Road Mix Asphaltic Base Courses
    32 11 26.19  Bituminous-Stabilized Base Courses
    32 11 29  Lime Treated Base Courses
    32 11 29.13  Lime-Fly Ash-Treated Base Courses
    32 11 33  Cement-Treated Base Courses
    32 11 33.13  Portland Cement-Stabilized Base Courses
    32 11 36  Concrete Base Courses
    32 11 36.13  Lean Concrete Base Courses
    32 11 36.16  Plain Cement Concrete Base Courses
    32 11 36.19  Hydraulic Cement Concrete Base Courses

32 12 00  Flexible Paving
    32 12 13  Preparatory Coats
    32 12 13.13  Tack Coats
    32 12 13.16  Asphalitic Tack Coats
    32 12 13.19  Prime Coats
    32 12 13.23  Asphalitic Prime Coats
    32 12 16  Asphalt Paving
    32 12 16.13  Plant-Mix Asphalt Paving
    32 12 16.16  Road-Mix Asphalt Paving
    32 12 16.19  Cold-Mix Asphalt Paving
    32 12 16.23  Reinforced Asphalt Paving
    32 12 16.26  Fiber-Modified Asphalt Paving
    32 12 16.29  Polymer-Modified Asphalt Paving
    32 12 16.33  Granulated Rubber-Modified Asphalt Paving
    32 12 16.36  Athletic Asphalt Paving
    32 12 19  Asphalt Paving Wearing Courses
    32 12 19.13  Road-Mix Asphalt Paving Wearing Courses
    32 12 19.16  Resin-Modified Asphalt Paving Wearing Courses
    32 12 19.19  Porous Friction Asphalt Paving Wearing Courses
32 12 33 Flexible Paving Surface Treatments
32 12 36 Seal Coats
32 12 36.13 Asphaltic Seal and Fog Coats
32 12 36.16 Coal Tar Seal Coats
32 12 36.19 Coal Tar Seal Coats with Unvulcanized Rubber
32 12 36.23 Fuel-Resistant Sealers
32 12 43 Porous Flexible Paving
32 12 73 Asphalt Paving Joint Sealants

32 13 00 Rigid Paving
32 13 13 Concrete Paving
32 13 13.13 Exposed Aggregate Concrete Paving
32 13 13.16 Power-Compacted Concrete Paving
32 13 13.19 Prestressed Concrete Paving
32 13 13.23 Concrete Paving Surface Treatment
32 13 13.33 Plain Concrete Paving
32 13 16 Decorative Concrete Paving
32 13 16.13 Patterned Concrete Paving
32 13 16.16 Roller-Compacted Concrete Paving
32 13 16.19 Imprinted Concrete Paving
32 13 16.23 Stamped Concrete Paving
32 13 43 Pervious Concrete Paving
32 13 73 Concrete Paving Joint Sealants
32 13 73.13 Fuel-Resistant Concrete Paving Joint Sealants
32 13 73.16 Field-Molded Concrete Paving Joint Sealants
32 13 73.19 Compression Concrete Paving Joint Sealants

32 14 00 Unit Paving
32 14 13 Precast Concrete Unit Paving
32 14 13.13 Interlocking Precast Concrete Unit Paving
32 14 13.16 Precast Concrete Unit Paving Slabs
32 14 13.19 Porous Precast Concrete Unit Paving
32 14 16 Brick Unit Paving
32 14 23 Asphalt Unit Paving
32 14 26 Wood Paving
32 14 29 Recycled-Rubber Paving
32 14 40 Stone Paving
32 14 43 Porous Unit Paving

32 15 00 Aggregate Surfacing
32 15 13 Cinder Surfacing
32 15 40 Crushed Stone Surfacing

32 16 00 Curbs, Gutters, Sidewalks, and Driveways
32 16 13 Curbs and Gutters
32 16 13.13 Cast-In-Place Concrete Curbs and Gutters
32 16 13.16 Steel Faced Curbs
32 16 13.23 Precast Concrete Curbs and Gutters
32 16 13.33 Asphalt Curbs
32 16 13.43 Stone Curbs
32 16 23 Sidewalks
32 16 33 Driveways

32 17 00 Paving Specialties
32 17 13 Parking Bumpers
32 17 13.13 Metal Parking Bumpers
32 17 13.16 Plastic Parking Bumpers
32 17 13.19 Precast Concrete Parking Bumpers
32 17 13.23 Rubber Parking Bumpers
32 17 13.26 Wood Parking Bumpers
32 17 16 Speed Bumps
32 17 23 Pavement Markings
32 17 23.13 Painted Pavement Markings
32 17 23.23 Raised Pavement Markings
32 17 23.33 Plastic Pavement Markings
32 17 26 Tactile Warning Surfacing
32 17 43 Pavement Snow Melting Systems

32 18 00 Athletic and Recreational Surfacing
32 18 13 Synthetic Grass Surfacing
32 18 16 Synthetic Resilient Surfacing
32 18 16.13 Playground Protective Surfacing
32 18 23 Athletic Surfacing
32 18 23.13 Baseball Field Surfacing
32 18 23.16 Natural Baseball Field Surfacing
32 18 23.19 Synthetic Baseball Field Surfacing
32 18 23.23 Field Sport Surfacing
32 18 23.26 Natural Field Sport Surfacing
32 18 23.29 Synthetic Field Sport Surfacing
32 18 23.33 Running Track Surfacing
32 18 23.36 Natural Running Track Surfacing
32 18 23.39 Synthetic Running Track Surfacing
32 18 23.43 Recreational Court Surfacing
32 18 23.53 Tennis Court Surfacing
32 18 23.56 Natural Tennis Court Surfacing
32 18 23.59 Synthetic Tennis Court Surfacing

32 30 00 Site Improvements
32 31 00 Fences and Gates
32 31 11 Gate Operators
32 31 13 Chain Link Fences and Gates
32 31 13.23 Recreational Court Fences and Gates
32 31 13.26 Tennis Court Fences and Gates
32 31 13.29 Tennis Court Wind Breaker
32 31 13.33 Chain Link Backstops
32 31 13.53 High-Security Chain Link Fences and Gates
32 31 16 Welded Wire Fences and Gates
32 31 17 Expanded Metal Fences and Gates
32 31 19 Decorative Metal Fences and Gates
32 31 23 Plastic Fences and Gates
32 31 26 Wire Fences and Gates
32 31 29 Wood Fences and Gates
32 31 32 Composite Fences and Gates
32 31 53 Cattle Guards

32 32 00 Retaining Walls
32 32 13 Cast-in-Place Concrete Retaining Walls
32 32 16 Precast Concrete Retaining Walls
32 32 19 Unit Masonry Retaining Walls
32 32 23 Segmental Retaining Walls
32 32 23.13 Segmental Concrete Unit Masonry Retaining Walls
32 32 23.16 Manufactured Modular Walls
32 32 26 Metal Crib Retaining Walls
32 32 29 Timber Retaining Walls
32 32 34 Reinforced Soil Retaining Walls
32 32 36 Gabion Retaining Walls
32 32 43 Soldier-Beam Retaining Walls
32 32 53 Stone Retaining Walls
32 34 00 Fabricated Bridges
  32 34 13 Fabricated Pedestrian Bridges
  32 34 23 Fabricated Roadway Bridges
  32 34 33 Fabricated Railway Bridges
32 35 00 Screening Devices
  32 35 13 Screens and Louvers
  32 35 16 Sound Barriers
32 39 00 Manufactured Site Specialties
  32 39 13 Manufactured Metal Bollards
  32 39 33 Artificial Rock Fabrications
32 70 00 Wetlands
32 71 00 Constructed Wetlands
32 72 00 Wetlands Restoration
32 80 00 Irrigation
32 82 00 Irrigation Pumps
32 84 00 Planting Irrigation
  32 84 13 Drip Irrigation
  32 84 23 Underground Sprinklers
32 86 00 Agricultural Irrigation
32 90 00 Planting
32 91 00 Planting Preparation
  32 91 13 Soil Preparation
  32 91 13.13 Hydro-Punching
  32 91 13.16 Mulching
  32 91 13.19 Planting Soil Mixing
  32 91 13.23 Structural Soil Mixing
  32 91 13.26 Planting Beds
  32 91 16 Planting Soil Stabilization
  32 91 16.13 Blanket Planting Soil Stabilization
  32 91 16.16 Mat Planting Soil Stabilization
  32 91 16.19 Netting Planting Soil Stabilization
  32 91 19 Landscape Grading
  32 91 19.13 Topsoil Placement and Grading
32 92 00 Turf and Grasses
  32 92 13 Hydro-Mulching
  32 92 16 Plugging
  32 92 19 Seeding
  32 92 19.13 Mechanical Seeding
  32 92 19.16 Hydraulic Seeding
  32 92 23 Sodding
  32 92 26 Sprigging
32 92 26.13  Stolonizing

32 93 00  Plants
  32 93 13  Ground Covers
  32 93 23  Plants and Bulbs
  32 93 33  Shrubs
  32 93 43  Trees
  32 93 93  Exterior Artificial Plants

32 94 00  Planting Accessories
  32 94 13  Landscape Edging
  32 94 16  Landscape Timbers
  32 94 19  Landscape Surfacing
  32 94 33  Planters
  32 94 43  Tree Grates
  32 94 46  Tree Grids

32 95 00  Exterior Planting Support Structures

32 96 00  Transplanting
  32 96 13  Ground Cover Transplanting
  32 96 23  Plant and Bulb Transplanting
  32 96 33  Shrub Transplanting
  32 96 43  Tree Transplanting
33 00 00  Utilities

33 01 00  Operation and Maintenance of Utilities
33 01 10  Operation and Maintenance of Water Utilities
33 01 10.71 Water Utility Storage Tank Rehabilitation
33 01 20  Operation and Maintenance of Wells
33 01 30  Operation and Maintenance of Sewer Utilities
33 01 30.13 Sewer and Manhole Testing
33 01 30.16 TV Inspection of Sewer Pipelines
33 01 30.51 Maintenance of Sewer Utilities
33 01 30.52 Pond and Reservoir Maintenance
33 01 30.61 Sewer and Pipe Joint Sealing
33 01 30.62 Manhole Grout Sealing
33 01 30.71 Rehabilitation of Sewer Utilities
33 01 30.72 Relining Sewers
33 01 50  Operation and Maintenance of Fuel Distribution Lines
33 01 50.51 Cleaning Fuel-Storage Tanks
33 01 50.71 Lining of Steel Fuel-Storage Tanks
33 01 60  Operation and Maintenance of Hydronic and Steam Energy Utilities
33 01 70  Operation and Maintenance of Electrical Utilities
33 01 80  Operation and Maintenance of Communications Utilities

33 05 00  Common Work Results for Utilities
33 05 13  Manholes and Structures
33 05 13.13 Manhole Grade Adjustment
33 05 16  Utility Structures
33 05 16.13 Precast Concrete Utility Structures
33 05 16.53 Rebuilding Utility Structures
33 05 19  Pressure Piping Tied Joint Restraint System
33 05 23  Trenchless Utility Installation
33 05 23.13 Utility Horizontal Directional Drilling
33 05 23.16 Utility Pipe Jacking
33 05 23.19 Microtunneling
33 05 23.23 Utility Pipe Ramming
33 05 23.26 Utility Impact Moling
33 05 23.29 Cable Trenching and Plowing
33 05 26  Utility Identification
33 05 26.13 Utility Identification Signs
33 05 26.16 Utility Identification Markers
33 05 26.19 Utility Identification Flags
33 05 26.23 Utility Identification Trace Wires

33 06 00  Schedules for Utilities
33 06 10  Schedules for Water Utilities
33 06 20  Schedules for Wells
33 06 30  Schedules for Sanitary Sewerage Utilities
33 06 40  Schedules for Storm Drainage Utilities
33 06 40.13 Storm Drainage Schedule
33 06 50  Schedules for Fuel Distribution Utilities
33 06 60  Schedules for Hydronic and Steam Energy Utilities
33 06 70  Schedules for Electrical Utilities
33 06 80  Schedules for Communications Utilities

33 08 00  Commissioning of Utilities
33 08 10  Commissioning of Water Utilities
33 08 20 Commissioning of Wells
33 08 30 Commissioning of Sanitary Sewerage Utilities
33 08 40 Commissioning of Storm Drainage Utilities
33 08 50 Commissioning of Fuel Distribution Utilities
33 08 60 Commissioning of Hydronic and Steam Energy Utilities
33 08 70 Commissioning of Electrical Utilities
33 08 80 Commissioning of Communications Utilities

33 09 00 Instrumentation and Control for Utilities
33 09 10 Instrumentation and Control for Water Utilities
33 09 20 Instrumentation and Control for Wells
33 09 30 Instrumentation and Control for Sanitary Sewerage Utilities
33 09 40 Instrumentation and Control for Storm Drainage Utilities
33 09 50 Instrumentation and Control for Fuel Distribution Utilities
33 09 60 Instrumentation and Control for Hydronic and Steam Energy Utilities
33 09 70 Instrumentation and Control for Electrical Utilities
33 09 80 Instrumentation and Control for Communications Utilities

33 10 00 Water Utilities

33 11 00 Water Utility Distribution Piping
33 11 13 Public Water Utility Distribution Piping
33 11 13.13 Ductile Iron Public Water Utility Distribution Piping
33 11 13.16 Cast Iron Public Water Utility Distribution Piping
33 11 13.23 Plastic Public Water Utility Distribution Piping
33 11 13.26 Galvanized Steel Public Water Utility Distribution Piping
33 11 13.33 Concrete Public Water Utility Distribution Piping
33 11 16 Site Water Utility Distribution Piping
33 11 19 Fire Suppression Utility Water Distribution Piping

33 12 00 Water Utility Distribution Equipment
33 12 13 Water Service Connections
33 12 13.13 Water Supply Backflow Preventer Assemblies
33 12 16 Water Utility Distribution Valves
33 12 19 Water Utility Distribution Fire Hydrants
33 12 23 Water Utility Pumping Stations
33 12 33 Water Utility Metering

33 13 00 Disinfecting of Water Utility Distribution

33 16 00 Water Utility Storage Tanks
33 16 13 Aboveground Water Utility Storage Tanks
33 16 13.13 Steel Aboveground Water Utility Storage Tanks
33 16 13.16 Prestressed Concrete Aboveground Water Utility Storage Tanks
33 16 13.19 Plastic Aboveground Water Utility Storage Tanks
33 16 16 Underground Water Utility Storage Tanks
33 16 19 Elevated Water Utility Storage Tanks

33 20 00 Wells

33 21 00 Water Supply Wells
33 21 13 Public Water Supply Wells
33 21 16 Irrigation Water Wells

33 22 00 Test Wells
33 23 00 Extraction Wells
33 24 00 Monitoring Wells
<table>
<thead>
<tr>
<th>MasterFormat Numbers</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>33 24 13</td>
<td>Groundwater Monitoring Wells</td>
</tr>
<tr>
<td>33 25 00</td>
<td>Recharge Wells</td>
</tr>
<tr>
<td>33 26 00</td>
<td>Relief Wells</td>
</tr>
<tr>
<td>33 29 00</td>
<td>Well Abandonment</td>
</tr>
<tr>
<td><strong>33 30 00</strong></td>
<td><strong>Sanitary Sewerage Utilities</strong></td>
</tr>
<tr>
<td>33 31 00</td>
<td><strong>Sanitary Utility Sewerage Piping</strong></td>
</tr>
<tr>
<td>33 31 13</td>
<td>Public Sanitary Utility Sewerage Piping</td>
</tr>
<tr>
<td>33 31 16</td>
<td>Industrial Waste Utility Sewerage Piping</td>
</tr>
<tr>
<td>33 32 00</td>
<td><strong>Wastewater Utility Pumping Stations</strong></td>
</tr>
<tr>
<td>33 32 13</td>
<td>Packaged Utility Lift Stations</td>
</tr>
<tr>
<td>33 32 13.13</td>
<td>Packaged Sewage Lift Stations, Wet Well Type</td>
</tr>
<tr>
<td>33 32 16</td>
<td>Packaged Utility Wastewater Pumping Stations</td>
</tr>
<tr>
<td>33 32 16.13</td>
<td>Packaged Sewage Grinder Pumping Units</td>
</tr>
<tr>
<td>33 32 19</td>
<td>Public Utility Wastewater Pumping Stations</td>
</tr>
<tr>
<td>33 33 00</td>
<td><strong>Low Pressure Utility Sewerage</strong></td>
</tr>
<tr>
<td>33 33 13</td>
<td>Sanitary Utility Sewerage</td>
</tr>
<tr>
<td>33 33 16</td>
<td>Combined Utility Sewerage</td>
</tr>
<tr>
<td><strong>33 34 00</strong></td>
<td><strong>Sanitary Utility Sewerage Force Mains</strong></td>
</tr>
<tr>
<td>33 34 13</td>
<td>Sanitary Utility Sewerage Inverted Siphons</td>
</tr>
<tr>
<td><strong>33 36 00</strong></td>
<td><strong>Utility Septic Tanks</strong></td>
</tr>
<tr>
<td>33 36 13</td>
<td>Utility Septic Tank and Effluent Wet Wells</td>
</tr>
<tr>
<td>33 36 13.13</td>
<td>Concrete Utility Septic Tank</td>
</tr>
<tr>
<td>33 36 13.16</td>
<td>Fiberglass Utility Septic Tank</td>
</tr>
<tr>
<td>33 36 13.19</td>
<td>Polyethylene Utility Septic Tank</td>
</tr>
<tr>
<td>33 36 16</td>
<td>Utility Septic Tank Effluent Pumps</td>
</tr>
<tr>
<td>33 36 16.13</td>
<td>Utility Septic Tank High-Head Effluent Pump</td>
</tr>
<tr>
<td>33 36 16.16</td>
<td>Utility Septic Tank Effluent Pump Package</td>
</tr>
<tr>
<td>33 36 19</td>
<td>Utility Septic Tank Effluent Filter</td>
</tr>
<tr>
<td>33 36 19.13</td>
<td>Utility Septic Tank Effluent Tube Filter</td>
</tr>
<tr>
<td>33 36 19.16</td>
<td>Utility Septic Tank Effluent Textile Media Filter</td>
</tr>
<tr>
<td>33 36 33</td>
<td>Utility Septic Tank Drainage Field</td>
</tr>
<tr>
<td>33 36 33.13</td>
<td>Utility Septic Tank Tile Drainage Field</td>
</tr>
<tr>
<td>33 36 33.16</td>
<td>Utility Septic Tank Shallow Pressurized Dispersal System</td>
</tr>
<tr>
<td><strong>33 38 00</strong></td>
<td><strong>Treatment Lagoons</strong></td>
</tr>
<tr>
<td>33 38 13</td>
<td>Municipal Wastewater Treatment Lagoons</td>
</tr>
<tr>
<td>33 38 16</td>
<td>Industrial Waste Lagoons</td>
</tr>
<tr>
<td>33 38 23</td>
<td>Agricultural Waste Lagoons</td>
</tr>
<tr>
<td>33 38 26</td>
<td>Residential Sewerage Lagoons</td>
</tr>
<tr>
<td><strong>33 39 00</strong></td>
<td><strong>Sanitary Utility Sewerage Structures</strong></td>
</tr>
<tr>
<td>33 39 13</td>
<td>Sanitary Utility Sewerage Manholes, Frames, and Covers</td>
</tr>
<tr>
<td>33 39 23</td>
<td>Sanitary Utility Sewerage Cleanouts</td>
</tr>
<tr>
<td><strong>33 40 00</strong></td>
<td><strong>Storm Drainage Utilities</strong></td>
</tr>
<tr>
<td><strong>33 41 00</strong></td>
<td><strong>Storm Utility Drainage Piping</strong></td>
</tr>
<tr>
<td>33 41 13</td>
<td>Public Storm Utility Drainage Piping</td>
</tr>
<tr>
<td><strong>33 42 00</strong></td>
<td><strong>Culverts</strong></td>
</tr>
<tr>
<td>33 42 13</td>
<td>Pipe Culverts</td>
</tr>
<tr>
<td>33 42 13.13</td>
<td>Public Pipe Culverts</td>
</tr>
</tbody>
</table>
33 42 16  Concrete Culverts
33 42 16.13  Precast Concrete Culverts
33 42 16.16  Cast-in-Place Concrete Culverts

33 44 00  Storm Utility Water Drains
33 44 13  Utility Area Drains
33 44 13.13  Catchbasins
33 44 16  Utility Trench Drains
33 44 19  Utility Storm Water Treatment
33 44 19.13  In-Line Utility Storm Water Filters
33 44 19.16  Catch Basin Insert Utility Storm Water Filters
33 44 19.19  Utility Oil and Gas Separators

33 45 00  Storm Utility Drainage Pumps

33 46 00  Subdrainage
33 46 13  Foundation Drainage
33 46 13.13  Foundation Drainage Piping
33 46 13.16  Geocomposite Foundation Drainage
33 46 16  Subdrainage Piping
33 46 16.13  Subdrainage Piping
33 46 16.16  Geocomposite Subdrainage
33 46 16.19  Pipe Underdrains
33 46 19  Underslab Drainage
33 46 19.13  Underslab Drainage Piping
33 46 19.16  Geocomposite Underslab Drainage
33 46 23  Drainage Layers
33 46 23.16  Gravel Drainage Layers
33 46 23.19  Geosynthetic Drainage Layers
33 46 26  Geotextile Subsurface Drainage Filtration
33 46 33  Retaining Wall Drainage

33 47 00  Ponds and Reservoirs
33 47 13  Pond and Reservoir Liners
33 47 13.13  Pond Liners
33 47 13.53  Reservoir Liners
33 47 16  Pond and Reservoir Covers
33 47 16.13  Pond Covers
33 47 16.53  Reservoir Covers
33 47 19  Water Ponds and Reservoirs
33 47 19.13  Water Distribution Ponds
33 47 19.16  Water Retainage Reservoirs
33 47 19.23  Cooling Water Ponds
33 47 19.33  Fire-Protection Water Ponds
33 47 26  Storm Drainage Ponds and Reservoirs
33 47 26.13  Stabilization Ponds
33 47 26.16  Retention Basins
33 47 26.19  Leaching Pits

33 49 00  Storm Drainage Structures
33 49 13  Storm Drainage Manholes, Frames, and Covers
33 49 22  Storm Drainage Water Detention Structures
33 49 23  Storm Drainage Water Retention Structures
33 49 23.13  Underground Storm Drainage Water Retention Tanks
33 49 24  Storm Drainage Water Storage Structures

33 50 00  Fuel Distribution Utilities
<table>
<thead>
<tr>
<th>MasterFormat</th>
<th>Natural-Gas Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>33 51 13</td>
<td>Natural-Gas Piping</td>
</tr>
<tr>
<td>33 51 33</td>
<td>Natural-Gas Metering</td>
</tr>
<tr>
<td>33 52 00</td>
<td>Liquid Fuel Distribution</td>
</tr>
<tr>
<td>33 52 13</td>
<td>Fuel-Oil Distribution</td>
</tr>
<tr>
<td>33 52 13.13</td>
<td>Fuel-Oil Piping</td>
</tr>
<tr>
<td>33 52 13.23</td>
<td>Fuel-Oil Pumps</td>
</tr>
<tr>
<td>33 52 16</td>
<td>Gasoline Distribution</td>
</tr>
<tr>
<td>33 52 16.13</td>
<td>Gasoline Piping</td>
</tr>
<tr>
<td>33 52 16.23</td>
<td>Gasoline Pumps</td>
</tr>
<tr>
<td>33 52 19</td>
<td>Diesel Fuel Distribution</td>
</tr>
<tr>
<td>33 52 19.13</td>
<td>Diesel Fuel Piping</td>
</tr>
<tr>
<td>33 52 19.23</td>
<td>Diesel Fuel Pumps</td>
</tr>
<tr>
<td>33 52 43</td>
<td>Aviation Fuel Distribution</td>
</tr>
<tr>
<td>33 52 43.13</td>
<td>Aviation Fuel Piping</td>
</tr>
<tr>
<td>33 52 43.16</td>
<td>Aviation Fuel Connections</td>
</tr>
<tr>
<td>33 52 43.19</td>
<td>Aviation Fuel Grounding</td>
</tr>
<tr>
<td>33 52 43.23</td>
<td>Aviation Fuel Pumps</td>
</tr>
<tr>
<td>33 52 00</td>
<td>Fuel-Storage Tanks</td>
</tr>
<tr>
<td>33 56 13</td>
<td>Aboveground Fuel-Storage Tanks</td>
</tr>
<tr>
<td>33 56 16</td>
<td>Underground Fuel-Storage Tanks</td>
</tr>
<tr>
<td>33 56 43</td>
<td>Aviation Fuel-Storage Tanks</td>
</tr>
<tr>
<td>33 56 43.13</td>
<td>Aboveground Aviation Fuel-Storage Tanks</td>
</tr>
<tr>
<td>33 56 43.16</td>
<td>Underground Aviation Fuel-Storage Tanks</td>
</tr>
<tr>
<td>33 56 53</td>
<td>Compressed Gases Storage Tanks</td>
</tr>
<tr>
<td>33 60 00</td>
<td>Hydronic and Steam Energy Utilities</td>
</tr>
<tr>
<td>33 61 00</td>
<td>Hydronic Energy Distribution</td>
</tr>
<tr>
<td>33 61 13</td>
<td>Underground Hydronic Energy Distribution</td>
</tr>
<tr>
<td>33 61 23</td>
<td>Aboveground Hydronic Energy Distribution</td>
</tr>
<tr>
<td>33 61 33</td>
<td>Hydronic Energy Distribution Metering</td>
</tr>
<tr>
<td>33 63 00</td>
<td>Steam Energy Distribution</td>
</tr>
<tr>
<td>33 63 13</td>
<td>Underground Steam and Condensate Distribution Piping</td>
</tr>
<tr>
<td>33 63 23</td>
<td>Aboveground Steam and Condensate Distribution Piping</td>
</tr>
<tr>
<td>33 63 33</td>
<td>Steam Energy Distribution Metering</td>
</tr>
<tr>
<td>33 70 00</td>
<td>Electrical Utilities</td>
</tr>
<tr>
<td>33 71 00</td>
<td>Electrical Utility Transmission and Distribution</td>
</tr>
<tr>
<td>33 71 13</td>
<td>Electrical Utility Towers</td>
</tr>
<tr>
<td>33 71 13.13</td>
<td>Precast Concrete Electrical Utility Towers</td>
</tr>
<tr>
<td>33 71 13.23</td>
<td>Steel Electrical Utility Towers</td>
</tr>
<tr>
<td>33 71 13.33</td>
<td>Wood Electrical Utility Towers</td>
</tr>
<tr>
<td>33 71 16</td>
<td>Electrical Utility Poles</td>
</tr>
<tr>
<td>33 71 16.13</td>
<td>Precast Concrete Electrical Utility Poles</td>
</tr>
<tr>
<td>33 71 16.23</td>
<td>Steel Electrical Utility Poles</td>
</tr>
<tr>
<td>33 71 16.33</td>
<td>Wood Electrical Utility Poles</td>
</tr>
<tr>
<td>33 71 19</td>
<td>Electrical Underground Ducts and Manholes</td>
</tr>
<tr>
<td>33 71 19.13</td>
<td>Electrical Manholes and Handholes</td>
</tr>
<tr>
<td>33 71 23</td>
<td>Insulators and Fittings</td>
</tr>
<tr>
<td>33 71 23.13</td>
<td>Suspension Insulators</td>
</tr>
<tr>
<td>33 71 23.16</td>
<td>Post Insulators</td>
</tr>
<tr>
<td>33 71 23.23</td>
<td>Potheads</td>
</tr>
</tbody>
</table>
33 71 26 Transmission and Distribution Equipment
33 71 26.13 Capacitor Banks
33 71 26.16 Coupling Capacitors
33 71 26.23 Current Transformers
33 71 26.26 Potential Transformers
33 71 36 Extra-High-Voltage Wiring
33 71 36.13 Overhead Extra-High-Voltage Wiring
33 71 39 High-Voltage Wiring
33 71 39.13 Overhead High-Voltage Wiring
33 71 39.23 Underground High-Voltage Wiring
33 71 39.33 Underwater High-Voltage Wiring
33 71 49 Medium-Voltage Wiring
33 71 49.13 Overhead Medium-Voltage Wiring
33 71 49.23 Underground Medium-Voltage Wiring
33 71 49.33 Underwater Medium-Voltage Wiring
33 71 53 Direct-Current Transmission
33 71 73 Electrical Utility Services
33 71 73.33 Electric Meters
33 71 83 Transmission and Distribution Specialties

33 72 00 Utility Substations
33 72 13 Deadend Structures
33 72 23 Structural Bus Supports
33 72 23.13 Bus Support Insulators
33 72 26 Substation Bus Assemblies
33 72 26.13 Aluminum Substation Bus Assemblies
33 72 26.16 Copper Substation Bus Assemblies
33 72 33 Control House Equipment
33 72 33.13 Relays
33 72 33.16 Substation Control Panels
33 72 33.23 Power-Line Carriers
33 72 33.26 Substation Metering
33 72 33.33 Raceway and Boxes for Utility Substations
33 72 33.36 Cable Trays for Utility Substations
33 72 33.43 Substation Backup Batteries
33 72 33.46 Substation Converter Stations
33 72 43 Substation Control Wiring

33 73 00 Utility Transformers
33 73 13 Liquid-Filled Utility Transformers
33 73 23 Dry-Type Utility Transformers

33 75 00 High-Voltage Switchgear and Protection Devices
33 75 13 Air High-Voltage Circuit Breaker
33 75 16 Oil High-Voltage Circuit Breaker
33 75 19 Gas High-Voltage Circuit Breaker
33 75 23 Vacuum High-Voltage Circuit Breaker
33 75 36 High-Voltage Utility Fuses
33 75 39 High-Voltage Surge Arresters
33 75 43 Shunt Reactors

33 77 00 Medium-Voltage Utility Switchgear and Protection Devices
33 77 13 Air Medium-Voltage Circuit Breaker
33 77 16 Oil Medium-Voltage Circuit Breaker
33 77 19  Gas Medium-Voltage Circuit Breaker
33 77 23  Vacuum Medium-Voltage Circuit Breaker
33 77 26  Medium-Voltage Utility Fusible Interrupter Switchgear
33 77 33  Medium-Voltage Utility Cutouts
33 77 36  Medium-Voltage Utility Fuses
33 77 39  Medium-Voltage Utility Surge Arresters
33 77 53  Medium-Voltage Utility Reclosers

33 79 00  Site Grounding
33 79 13  Site Improvements Grounding
33 79 13.13 Electric Fence Grounding
33 79 16  Tower Grounding
33 79 16.13 Communications Tower Grounding
33 79 16.16 Antenna Tower Grounding
33 79 19  Utilities Grounding
33 79 19.13 Electrical Utilities Grounding
33 79 19.16 Communications Utilities Grounding
33 79 23  Utility Substation Grounding
33 79 83  Site Grounding Conductors
33 79 83.13 Grounding Wire, Bar, and Rod
33 79 83.16 Chemical Rod
33 79 83.23 Conductive Concrete
33 79 83.33 Earth Grounding Enhancement
33 79 83.43 Deep Earth Grounding
33 79 93  Site Lightning Protection
33 79 93.13 Lightning Strike Counters
33 79 93.16 Lightning Strike Warning Devices

33 80 00  Communications Utilities
33 81 00  Communications Structures
33 81 13  Communications Transmission Towers
33 81 16  Antenna Towers
33 81 19  Communications Utility Poles
33 81 23  Aerial Cable Installation Hardware
33 81 26  Communications Underground Ducts, Manholes, and Handholes
33 81 29  Communications Vaults, Pedestals, and Enclosures
33 81 33  Communications Blowers, Fans, and Ventilation

33 82 00  Communications Distribution
33 82 13  Copper Communications Distribution Cabling
33 82 13.13 Copper Splicing and Terminations
33 82 23  Optical Fiber Communications Distribution Cabling
33 82 23.13 Optical Fiber Splicing and Terminations
33 82 33  Coaxial Communications Distribution Cabling
33 82 33.13 Coaxial Splicing and Terminations
33 82 43  Grounding and Bonding for Communications Distribution
33 82 46  Cable Pressurization Equipment
33 82 53  Cleaning, Lubrication, and Restoration Chemicals

33 83 00  Wireless Communications Distribution
33 83 13  Laser Transmitters and Receivers
33 83 16  Microwave Transmitters and Receivers
33 83 19  Infrared Transmitters and Receivers
33 83 23  UHF/VHF Transmitters and Antennas
34 00 00 Transportation

34 01 00 Operation and Maintenance of Transportation
  34 01 13 Operation and Maintenance of Roadways
  34 01 23 Operation and Maintenance of Railways
  34 01 23.13 Track Removal and Salvage
  34 01 23.81 Track Crosstie Replacement
  34 01 33 Operation and Maintenance of Airfields
  34 01 43 Operation and Maintenance of Bridges

34 05 00 Common Work Results for Transportation
  34 05 13 Common Work Results for Roadways
  34 05 23 Common Work Results for Railways
  34 05 33 Common Work Results for Airports
  34 05 43 Common Work Results for Bridges

34 06 00 Schedules for Transportation
  34 06 13 Schedules for Roadways
  34 06 23 Schedules for Railways
  34 06 33 Schedules for Airfields
  34 06 43 Schedules for Bridges

34 08 00 Commissioning of Transportation
  34 08 13 Commissioning of Roadways
  34 08 23 Commissioning of Railways
  34 08 33 Commissioning of Airfields
  34 08 43 Commissioning of Bridges

34 10 00 Guideways/Railways

34 11 00 Rail Tracks
  34 11 13 Track Rails
  34 11 13.13 Light Rail Track
  34 11 13.23 Heavy Rail Track
  34 11 16 Welded Track Rails
  34 11 16.13 In-Track Butt-Welded Track Rail
  34 11 16.16 Pressure-Welded Track Rail
  34 11 16.19 Thermite-Welded Track Rail
  34 11 19 Track Rail Joints
  34 11 23 Special Trackwork
  34 11 23.13 Ballasted Special Track Rail
  34 11 23.16 Direct-Fixation Track
  34 11 23.23 Running Rail
  34 11 23.26 Precurved Running Rail
  34 11 26 Ballasted Track Rail
  34 11 26.13 Track Rail Ballast
  34 11 26.16 Track Rail Subballast
  34 11 29 Embedded Track Rail
  34 11 33 Track Cross Ties
  34 11 33.13 Concrete Track Cross Ties
  34 11 33.16 Timber Track Cross Ties
  34 11 33.19 Resilient Track Cross Ties
  34 11 36 Track Rail Fasteners
  34 11 36.13 Direct-Fixation Fasteners
  34 11 39 Track Collector Pans
  34 11 39.13 Fiberglass Track Collector Pans
34 11 93 Track Appurtenances and Accessories

34 12 00 Monorails
  34 12 13 Elevated Monorails
  34 12 16 On-Grade Monorails
  34 12 19 Below-Grade Monorails
  34 12 23 Maglev Monorail
  34 12 63 Monorail Track

34 13 00 Funiculars
  34 13 13 Inclined Railway

34 14 00 Cable Transportation
  34 14 13 Aerial Tramways
  34 14 19 Gondolas
  34 14 26 Funitels
  34 14 33 Chairlifts
  34 14 39 Surface Lifts
  34 14 46 Ropeway Tows
  34 14 53 Cable Car Systems

34 20 00 Traction Power

34 21 00 Traction Power Distribution
  34 21 13 High Power Static Frequency Converters
  34 21 16 Traction Power Substations
  34 21 16.13 AC Traction Power Substations
  34 21 16.16 DC Traction Power Substations
  34 21 19 Traction Power Switchgear
  34 21 19.13 AC Traction Power Switchgear
  34 21 19.16 DC Traction Power Switchgear
  34 21 19.23 Frequency Changer
  34 21 23 Traction Power Transformer-Rectifier Units

34 23 00 Overhead Traction Power
  34 23 13 Traction Power Poles
  34 23 16 Overhead Cable Suspension
  34 23 23 Overhead Traction Power Cables

34 24 00 Third Rail Traction Power
  34 24 13 Bottom-Contact Third Rail
  34 24 16 Side-Contact Third Rail
  34 24 19 Top-Contact Third Rail

34 40 00 Transportation Signaling and Control Equipment

34 41 00 Roadway Signaling and Control Equipment
  34 41 13 Traffic Signals
  34 41 16 Traffic Control Equipment
  34 41 23 Roadway Monitoring Equipment

34 42 00 Railway Signaling and Control Equipment
  34 42 13 Railway Signals
  34 42 13.13 General Railway Signal Requirements
  34 42 13.16 Signal Solid State Coded Track Circuits
  34 42 16 Train Control Wires and Cables
34 42 19 Vital Interlocking Logic Controllers
34 42 23 Railway Control Equipment
34 42 23.13 Mainline Train Control Room Equipment
34 42 23.16 Yard Train Control Room Equipment
34 42 23.19 Integrated Control Equipment
34 42 23.23 Interlocking Railway Control Equipment
34 42 26 Rail Network Equipment
34 42 29 Station Agent Equipment
34 42 33 Yard Management Equipment
34 42 36 Supervisory Control and Data Acquisition

34 43 00 Airfield Signaling and Control Equipment
34 43 13 Airfield Signals
34 43 13.13 Airfield Runway Identification Lights
34 43 13.16 Airfield Runway and Taxiway Inset Lighting
34 43 16 Airfield Landing Equipment
34 43 16.13 Microwave Airfield Landing Equipment
34 43 16.16 Instrument Airfield Landing Equipment
34 43 16.19 Airfield Visual-Approach Slope Indicator Equipment
34 43 16.23 Airfield Short-Approach Lighting Equipment
34 43 16.26 Airfield Omni-Directional-Approach Lighting Equipment
34 43 16.29 Airfield Low-Intensity-Approach Lighting Equipment
34 43 16.33 Airfield High-Intensity-Approach Lighting Equipment
34 43 16.36 Airfield Precision-Approach Path Indicator Equipment
34 43 19 Airfield Traffic Control Tower Equipment
34 43 23 Weather Observation Equipment
34 43 23.13 Automatic Weather Observation Equipment
34 43 23.16 Airfield Wind Cones
34 43 26 Airfield Control Equipment
34 43 26.13 Airfield Lighting Control Equipment
34 43 26.16 Airfield Lighting PLC Control Equipment
34 43 26.19 Airfield Lighting Regulator Assembly

34 48 00 Bridge Signaling and Control Equipment
34 48 13 Operating Bridge Signals
34 48 16 Operating Bridge Control Equipment

34 50 00 Transportation Fare Collection Equipment

34 52 00 Vehicle Fare Collection
34 52 16 Vehicle Ticketing Equipment
34 52 16.13 Vehicle Ticket Vending Machines
34 52 26 Vehicle Fare Collection Equipment
34 52 26.13 Vehicle Coin Fare Collection Equipment
34 52 26.16 Vehicle Electronic Fare Collection Equipment
34 52 33 Vehicle Fare Gates

34 54 00 Passenger Fare Collection
34 54 16 Passenger Ticketing Equipment
34 54 16.13 Passenger Ticket Vending Machines
34 54 16.16 Passenger Addfare Machines
34 54 16.23 Passenger Intermodal Transfer Machines
34 54 26 Passenger Fare Collection Equipment
34 54 26.13 Passenger Coin Fare Collection Equipment
34 54 26.16 Passenger Electronic Fare Collection Equipment
34 54 33 Passenger Fare Gates
34 70 00 Transportation Construction and Equipment

34 71 00 Roadway Construction
   34 71 13 Vehicle Barriers
   34 71 13.13 Vehicle Median Barriers
   34 71 13.16 Vehicle Crash Barriers
   34 71 13.19 Vehicle Traffic Barriers
   34 71 13.26 Vehicle Guide Rails
   34 71 13.29 Vehicle Barrier Fenders
   34 71 16 Impact Attenuating Devices
   34 71 19 Vehicle Delineators
   34 71 19.13 Fixed Vehicle Delineators
   34 71 19.16 Flexible Vehicle Delineators

34 72 00 Railway Construction
   34 72 13 Railway Line
   34 72 16 Railway Siding

34 73 00 Airfield Construction
   34 73 13 Aircraft Tiedowns
   34 73 16 Airfield Grounding
   34 73 16.13 Aircraft Static Grounding
   34 73 19 Jet Blast Barriers
   34 73 23 Manufactured Airfield Control Towers
   34 73 26 Manufactured Helipads

34 75 00 Roadway Equipment
   34 75 13 Operable Roadway Equipment
   34 75 13.13 Active Vehicle Barriers

34 76 00 Railway Equipment
   34 76 13 Roadway Crossing Control Equipment

34 77 00 Transportation Equipment
   34 77 13 Passenger Boarding Bridges
   34 77 13.13 Fixed Aircraft Passenger Boarding Bridges
   34 77 13.16 Movable Aircraft Passenger Boarding Bridges
   34 77 13.23 Ship Passenger Boarding Bridges
   34 77 33 Baggage Scanning Equipment
   34 77 36 Baggage Scales
   34 77 39 Baggage Conveying Equipment

34 80 00 Bridges

34 81 00 Bridge Machinery
   34 81 13 Single-Swing Bridge Machinery
   34 81 16 Double-Swing Bridge Machinery
   34 81 19 Cantilever Bridge Machinery
   34 81 23 Lift Bridge Machinery
   34 81 26 Sliding Bridge Machinery
   34 81 29 Pontoon Bridge Machinery
   34 81 32 Bascule Bridge Machinery

34 82 00 Bridge Specialties
   34 82 13 Bridge Vibration Dampers
   34 82 13.13 Visco Elastic Bridge Vibration Dampers
34 82 13.16  Tuned-Mass Bridge Vibration Dampers
34 82 19    Bridge Pier Protection
34 82 19.13 Bridge Pier Ice Shields
35 00 00 Waterway and Marine Construction

35 01 00 Operation and Maintenance of Waterway and Marine Construction
35 01 30 Operation and Maintenance of Coastal Construction
35 01 40 Operation and Maintenance of Waterway Construction
35 01 40.51 Waterway Dredging
35 01 40.92 Preservation of Water Courses
35 01 50 Operation and Maintenance of Marine Construction
35 01 50.51 Marine Dredging
35 01 50.71 Channel Excavation, Cleaning and Deepening
35 01 70 Operation and Maintenance of Dams

35 05 00 Common Work Results for Waterway and Marine Construction
35 05 30 Common Work Results for Coastal Construction
35 05 40 Common Work Results for Waterway Construction
35 05 50 Common Work Results for Marine Construction
35 05 70 Common Work Results for Dams

35 06 00 Schedules for Waterway and Marine Construction
35 06 30 Schedules for Coastal Construction
35 06 40 Schedules for Waterway Construction
35 06 50 Schedules for Marine Construction
35 06 70 Schedules for Dams

35 08 00 Commissioning of Waterway and Marine Construction
35 08 30 Commissioning of Coastal Construction
35 08 40 Commissioning of Waterway Construction
35 08 50 Commissioning of Marine Construction
35 08 70 Commissioning of Dams

35 10 00 Waterway and Marine Signaling and Control Equipment

35 11 00 Signaling and Control Equipment for Waterways
35 11 13 Signaling Equipment for Waterways
35 11 53 Control Equipment for Waterways

35 12 00 Marine Signaling and Control Equipment
35 12 13 Marine Signaling Equipment
35 12 13.13 Lighthouse Equipment
35 12 33 Marine Navigation Equipment
35 12 53 Marine Control Equipment

35 13 00 Signaling and Control Equipment for Dams
35 13 13 Signaling Equipment for Dams
35 13 53 Control Equipment for Dams

35 20 00 Waterway and Marine Construction and Equipment
35 20 13 Hydraulic Fabrications
35 20 13.13 Hydraulic Bifurcation Panels
35 20 13.16 Hydraulic Bulkheads
35 20 13.19 Hydraulic Manifolds
35 20 13.23  Hydraulic Penstocks  
35 20 13.26  Hydraulic Trashracks  
35 20 16  Hydraulic Gates  
35 20 16.13  Hydraulic Spillway Crest Gates  
35 20 16.19  Hydraulic Head Gates  
35 20 16.26  Hydraulic Sluice Gates  
35 20 16.33  Hydraulic Miter Gates  
35 20 16.39  Hydraulic Sector Gates  
35 20 16.46  Hydraulic Tainter Gates and Anchorages  
35 20 16.53  Hydraulic Vertical Lift Gates  
35 20 16.59  Hydraulic Closure Gates  
35 20 19  Hydraulic Valves  
35 20 19.13  Hydraulic Butterfly Valves  
35 20 19.23  Hydraulic Regulating Valves  
35 20 23  Dredging  
35 20 23.13  Mechanical Dredging  
35 20 23.23  Hydraulic Dredging  
35 20 23.33  Integrated Dredging and Dewatering  

35 30 00  Coastal Construction  
35 31 00  Shoreline Protection  
35 31 16  Seawalls  
35 31 16.13  Concrete Seawalls  
35 31 16.16  Segmental Seawalls  
35 31 16.19  Steel Sheet Piling Seawalls  
35 31 16.23  Timber Seawalls  
35 31 16.40  Stone Seawalls  
35 31 19  Revetments  
35 31 19.13  Sacked Cement-Sand Revetments  
35 31 19.16  Concrete Unit Masonry Revetments  
35 31 19.36  Gabion Revetments  
35 31 19.40  Stone Revetments  
35 31 23  Breakwaters  
35 31 23.13  Rubble Mound Breakwaters  
35 31 23.16  Precast Breakwater Modules  
35 31 26  Jetties  
35 31 26.13  Concrete Jetties  
35 31 26.16  Concrete Unit Masonry Jetties  
35 31 26.36  Gabion Jetties  
35 31 26.40  Stone Jetties  
35 31 29  Groins  
35 31 29.13  Concrete Groins  
35 31 29.16  Concrete Unit Masonry Groins  
35 31 29.26  Steel Groins  
35 31 29.36  Gabion Groins  
35 31 29.40  Stone Groins  

35 32 00  Artificial Reefs  
35 32 13  Scrap Material Artificial Reefs  
35 32 13.13  Scrap Concrete Artificial Reefs  
35 32 13.19  Scrap Steel Artificial Reefs  
35 32 13.33  Sunken Ship Artificial Reefs  
35 32 16  Constructed Artificial Reefs  
35 32 16.13  Constructed Concrete Artificial Reefs  
35 32 16.19  Constructed Steel Artificial Reefs
35 40 00  Waterway Construction and Equipment
35 41 00  Levees
  35 41 13  Landside Levee Berms
  35 41 13.13  Stability Landside Levee Berms
  35 41 13.16  Seepage Landside Levee Berms
  35 41 16  Levee Cutoff Trenches
  35 41 19  Levee Relief Wells
35 42 00  Waterway Bank Protection
  35 42 13  Piling Bank Protection
  35 42 13.19  Steel Sheet Piling Bank Protection
  35 42 13.23  Timber Piling Bank Protection
  35 42 13.26  Plastic Piling Bank Protection
  35 42 29  Grout-Bag Bank Protection
  35 42 34  Soil Reinforcement Bank Protection
  35 42 35  Slope Protection Bank Protection
  35 42 36  Gabion Bank Protection
  35 42 37  Riprap Bank Protection
  35 42 53  Wall Bank Protection
  35 42 53.16  Concrete Unit Masonry Wall Bank Protection
  35 42 53.19  Segmental Wall Bank Protection
  35 42 53.40  Stone Wall Bank Protection
35 43 00  Waterway Scour Protection
  35 43 29  Grout-Bag Scour Protection
  35 43 34  Soil Reinforcement Scour Protection
  35 43 35  Slope Protection Scour Protection
  35 43 36  Gabion Scour Protection
  35 43 37  Riprap Scour Protection
  35 43 53  Wall Scour Protection
  35 43 53.13  Concrete Unit Masonry Wall Scour Protection
  35 43 53.16  Segmental Wall Scour Protection
  35 43 53.40  Stone Wall Scour Protection
35 49 00  Waterway Structures
  35 49 13  Floodwalls
  35 49 13.13  Concrete Floodwalls
  35 49 13.16  Masonry Floodwalls
  35 49 23  Waterway Locks
  35 49 23.13  Concrete Waterway Locks
  35 49 23.23  Piling Waterway Locks
  35 49 26  Floodgate Machinery
35 50 00  Marine Construction and Equipment
35 51 00  Floating Construction
  35 51 13  Floating Piers
  35 51 13.23  Floating Wood Piers
  35 51 13.26  Floating Plastic Piers
  35 51 23  Pontoons
35 52 00  Offshore Platform Construction
  35 52 13  Fixed Offshore Platform Construction
  35 52 23  Semi-Submersible Offshore Platform Construction
  35 52 33  Floating Offshore Platform Construction
35 53 00 Underwater Construction
35 53 23 Underwater Harbor Deepening
35 53 33 Underwater Pipeline Construction
35 53 43 Underwater Foundation Construction
35 53 53 Underwater Structures Construction
35 53 63 Underwater Waterproofing

35 59 00 Marine Specialties
35 59 13 Marine Fenders
35 59 13.13 Prestressed Concrete Marine Fender Piling
35 59 13.16 Resilient Foam-Filled Marine Fenders
35 59 13.19 Rubber Marine Fenders
35 59 23 Buys
35 59 23.13 Mooring Buys
35 59 23.16 Anchor Pendant Buys
35 59 23.19 Navigation Buys
35 59 29 Mooring Devices
35 59 29.13 Quick-Release Mooring Hooks
35 59 29.16 Laser Docking Systems
35 59 29.19 Capstans
35 59 33 Marine Bollards and Cleats
35 59 33.13 Cast-Steel Marine Bollards and Cleats
35 59 33.16 Cast-Iron Marine Bollards and Cleats
35 59 33.19 Stainless-Steel Marine Bollards and Cleats
35 59 33.23 Plastic Marine Bollards and Cleats
35 59 93 Marine Chain and Accessories
35 59 93.13 Marine Chain
35 59 93.16 Marine Shackles
35 59 93.19 Marine Chain Tensioners

35 70 00 Dam Construction and Equipment
35 71 00 Gravity Dams
35 71 13 Concrete Gravity Dams
35 71 16 Masonry Gravity Dams
35 71 19 Rockfill Gravity Dams

35 72 00 Arch Dams
35 72 13 Concrete Arch Dams

35 73 00 Embankment Dams
35 73 13 Earth Embankment Dam
35 73 16 Rock Embankment Dams

35 74 00 Buttress Dams
35 74 13 Concrete Buttress Dams

35 79 00 Auxiliary Dam Structures
35 79 13 Fish Ladders
35 79 13.13 Concrete Fish Ladders
40 00 00 Process Integration
40 01 00 Operation and Maintenance of Process Integration
  40 01 10 Operation and Maintenance of Gas and Vapor Process Piping
  40 01 20 Operation and Maintenance of Liquids Process Piping
  40 01 30 Operation and Maintenance of Solid and Mixed Materials Piping and Chutes
  40 01 40 Operation and Maintenance of Process Piping and Equipment Protection
40 05 00 Common Work Results for Process Integration
  40 05 13 Common Work Results for Process Piping
    40 05 13.13 Steel Process Piping
    40 05 13.16 Lined or Internally-Coated Steel Process Piping
    40 05 13.19 Stainless-Steel Process Piping
    40 05 13.23 Aluminum Alloys Process Piping
    40 05 13.33 Brass, Bronze, Copper, and Copper Alloys Process Piping
    40 05 13.43 Nickel and Nickel Alloys Process Piping
    40 05 13.53 Ductile, Malleable, and Cast Iron Alloys Process Piping
    40 05 13.63 Titanium and Titanium Alloys Process Piping
    40 05 13.73 Plastic Process Piping
    40 05 13.76 Fiberglass-Reinforced Plastic and Resins Process Piping
    40 05 13.93 Other Metals Process Piping
  40 05 23 Common Work Results for Process Valves
    40 05 23.13 Carbon Steel Process Valves
    40 05 23.16 Low and Intermediate Alloy Steel Process Valves
    40 05 23.19 Stainless-Steel Process Valves
    40 05 23.33 Brass and Iron Process Valves
    40 05 23.43 Nickel and Nickel Alloys Steel Process Valves
    40 05 23.73 Plastic and Plastic Lined Process Valves
    40 05 23.93 Other Metals Process Valves
40 06 00 Schedules for Process Integration
  40 06 10 Schedules for Gas and Vapor Process Piping
  40 06 20 Schedules for Liquids Process Piping
  40 06 30 Schedules for Solid and Mixed Materials Piping and Chutes
  40 06 40 Schedules for Process Piping and Equipment Protection
40 10 00 Gas and Vapor Process Piping
40 11 00 Steam Process Piping
  40 11 13 Low-Pressure Steam Process Piping
  40 11 16 Intermediate-Pressure Steam Process Piping
  40 11 19 High-Pressure Steam Process Piping
  40 11 23 Condensate Process Piping
40 12 00 Compressed Air Process Piping
  40 12 13 Breathing Compressed Air Process Piping
  40 12 16 Non-Breathing Compressed Air Process Piping
40 13 00 Inert Gases Process Piping
  40 13 13 Argon Process Piping
  40 13 16 Carbon-Dioxide Process Piping
  40 13 19 Helium Process Piping
  40 13 23 Krypton Process Piping
  40 13 26 Neon Process Piping
  40 13 29 Nitrogen Process Piping
40 13 33  Xenon Process Piping  
40 13 93  Mixed Inert Gases Process Piping  
**40 14 00  Fuel Gases Process Piping**  
40 14 13  Blast Furnace Piping  
40 14 16  Blue (Water) Fuel Gas Piping  
40 14 19  Butane Piping  
40 14 23  Carbon-Monoxyde Piping  
40 14 26  Chlorine Fuel Gas Piping  
40 14 29  Coke Oven Gas Piping  
40 14 33  Ethane-Gas Piping  
40 14 36  Hydrogen Fuel Gas Piping  
40 14 39  Liquid Natural-Gas Process Piping  
40 14 43  Methylacetylene-Propadiene Fuel Gas Piping  
40 14 49  Natural-Gas Process Piping  
40 14 49.13  Synthetic Natural-Gas Piping  
40 14 49.23  Propane-Air Mixes Fuel Gas Piping  
40 14 53  Octane Fuel Gas Piping  
40 14 59  Propane Fuel Gas Process Piping  
40 14 63  Sewage Fuel Gas Piping  
40 14 93  Mixed Fuel Gases Piping  
**40 15 00  Combustion System Gas Piping**  
40 15 13  Combustion Air Piping  
40 15 16  Oxygen Combustion System Gas Piping  
40 15 19  Flue-Gas Combustion System Piping  
40 15 23  Exothermic-Gas Combustion System Piping  
40 15 26  Endothermic-Gas Combustion System Piping  
40 15 29  Disassociated-Ammonia-Gas Combustion System Piping  
**40 16 00  Specialty and High-Purity Gases Piping**  
40 16 13  Ammonia Gas Piping  
40 16 16  Boron Gas Piping  
40 16 26  Diborane Gas Piping  
40 16 29  Flourine Gas Piping  
40 16 33  Hydrogen Sulphide Gas Piping  
40 16 36  Nitrous-Oxide Gas Process Piping  
40 16 39  Ozone Gas Piping  
40 16 43  Phosphine Gas Piping  
40 16 46  Silane Gas Piping  
40 16 49  Sulphur-Dioxide Gas Piping  
40 16 53  Specialty Gas Mixtures Piping  
40 16 56  High-Purity Gas Piping Components  
**40 17 00  Welding and Cutting Gases Piping**  
40 17 13  Acetylene Welding and Cutting Piping  
40 17 16  Acetylene-Hydrogen Mix Welding and Cutting Piping  
40 17 19  Methylacetylene-Propadiene Welding and Cutting Piping  
40 17 23  Oxygen Welding and Cutting Piping  
40 17 26  Inert Gas Welding and Cutting Piping  
**40 18 00  Vacuum Systems Process Piping**  
40 18 13  Low-Vacuum Systems Process Piping  
40 18 16  High-Vacuum Systems Process Piping
40 20 00  Liquids Process Piping
40 21 00  Liquid Fuel Process Piping
   40 21 13  Bio Fuels Process Piping
   40 21 16  Gasoline Process Piping
   40 21 19  Diesel Process Piping
   40 21 23  Fuel-Oils Process Piping
   40 21 23.13 No. 2 Fuel-Oil Process Piping
   40 21 23.16 No. 4 Fuel-Oil Process Piping
   40 21 23.19 No. 5 Fuel-Oil Process Piping
   40 21 23.23 No. 6 Fuel-Oil Process Piping
   40 21 23.26 Kerosene Process Piping
   40 21 23.29 Tar Process Piping
40 22 00  Petroleum Products Piping
   40 22 13  Heavy-Fractions Petroleum Products Piping
   40 22 16  Light-Fractions Petroleum Products Piping
40 23 00  Water Process Piping
   40 23 13  Deionized Water Process Piping
   40 23 16  Distilled-Water Process Piping
   40 23 19  Process Plant Water Piping
   40 23 23  Potable Water Process Piping
   40 23 29  Recirculated Water Process Piping
   40 23 33  Reverse-Osmosis Water Process Piping
   40 23 36  Sanitary Water Process Piping
40 24 00  Specialty Liquid Chemicals Piping
   40 24 13  Alcohol Piping
   40 24 16  Gel Piping
   40 24 19  Slurries Process Piping
   40 24 23  Thixotropic Liquid Piping
40 25 00  Liquid Acids and Bases Piping
   40 25 13  Liquid Acids Piping
   40 25 16  Liquid Bases Piping
40 26 00  Liquid Polymer Piping
40 30 00  Solid and Mixed Materials Piping and Chutes
40 32 00  Bulk Materials Piping and Chutes
   40 32 13  Abrasive Materials Piping and Chutes
   40 32 16  Nonabrasive Materials Piping and Chutes
40 33 00  Bulk Materials Valves
   40 33 13  Airlock Bulk Materials Valves
   40 33 16  Blind Bulk Materials Valves
   40 33 19  Butterfly Bulk Materials Valves
   40 33 23  Cone Bulk Materials Valves
   40 33 26  Diverter Bulk Materials Valves
   40 33 29  Double or Single Dump Bulk Materials Valves
   40 33 33  Knife and Slide Gate Bulk Materials Valves
   40 33 36  Pinch Bulk Materials Valves
   40 33 39  Swing Bulk Materials Valves
40 33 43  Specialty Bulk Materials Valves
40 34 00  **Pneumatic Conveying Lines**
  40 34 13  Dense Phase Pneumatic Conveying Lines
  40 34 16  Dilute Phase Pneumatic Conveying Lines
40 40 00  **Process Piping and Equipment Protection**
40 41 00  **Process Piping and Equipment Heat Tracing**
  40 41 13  Process Piping Heat Tracing
  40 41 13.13  Process Piping Electrical Resistance Heat Tracing
  40 41 13.16  Process Piping Electrical Conductance Heat Tracing
  40 41 13.19  Process Piping Gas Heat Tracing
  40 41 13.23  Process Piping Steam Heat Tracing
  40 41 13.26  Process Piping Thermal Fluids Heat Tracing
  40 41 23  Process Equipment Heat Tracing
  40 41 23.13  Process Equipment Electrical Resistance Heat Tracing
  40 41 23.16  Process Equipment Electrical Conductance Heat Tracing
  40 41 23.19  Process Equipment Gas Heat Tracing
  40 41 23.23  Process Equipment Steam Heat Tracing
  40 41 23.26  Process Equipment Thermal Fluids Heat Tracing
40 42 00  **Process Piping and Equipment Insulation**
  40 42 13  Process Piping Insulation
  40 42 13.13  Cryogenic Temperature Process Piping Insulation
  40 42 13.16  Low Temperature Process Piping Insulation
  40 42 13.19  Intermediate Temperature Process Piping Insulation
  40 42 13.23  High Temperature Process Piping Insulation
  40 42 13.26  Process Piping Insulation for Specialty Applications
  40 42 23  Process Equipment Insulation
  40 42 23.13  Cryogenic Temperature Process Equipment Insulation
  40 42 23.16  Low Temperature Process Equipment Insulation
  40 42 23.19  Intermediate Temperature Process Equipment Insulation
  40 42 23.23  High Temperature Process Equipment Insulation
  40 42 23.26  Process Equipment Insulation for Specialty Applications
40 46 00  **Process Corrosion Protection**
  40 46 16  Coatings and Wrappings for Process Corrosion Protection
  40 46 42  Cathodic Process Corrosion Protection
40 47 00  **Refractories**
  40 47 13  Silica Refractories
  40 47 16  Alumina Refractories
  40 47 19  Carbon and Graphite Refractories
  40 47 23  Castable Refractories
  40 47 26  Rammed Refractories
  40 47 29  Refractory Concrete
40 80 00  **Commissioning of Process Systems**
40 90 00  **Instrumentation and Control for Process Systems**
40 91 00  **Primary Process Measurement Devices**
  40 91 13  Chemical Properties Process Measurement Devices
  40 91 13.13  Ammonia Process Measurement Devices
  40 91 13.16  Chlorine Process Measurement Devices
  40 91 13.19  Fluoride Process Measurement Devices
40 91 13.23  Gas Analysis Process Measurement Devices
40 91 13.26  Gas Chromatograph Process Measurement Devices
40 91 13.29  pH Level Process Measurement Devices
40 91 16  Electromagnetic Process Measurement Devices
40 91 16.13  Amperes Process Measurement Devices
40 91 16.16  Capacitance Process Measurement Devices
40 91 16.19  Conductivity Process Measurement Devices
40 91 16.23  Inductance Process Measurement Devices
40 91 16.26  Lumens Process Measurement Devices
40 91 16.29  Magnetic Field Process Measurement Devices
40 91 16.33  Electrical Power Process Measurement Devices
40 91 16.36  Radiation Process Measurement Devices
40 91 16.39  Electrical Resistance Process Measurement Devices
40 91 16.43  Ultraviolet Sensors
40 91 16.46  Voltage Process Measurement Devices
40 91 19  Physical Properties Process Measurement Devices
40 91 19.13  Density Process Measurement Devices
40 91 19.16  Humidity Process Measurement Devices
40 91 19.19  Mass Process Measurement Devices
40 91 19.23  Particle Counters Process Measurement Devices
40 91 19.26  Gas Pressure Process Measurement Devices
40 91 19.29  Liquid Pressure Process Measurement Devices
40 91 19.33  Stress/Strain Process Measurement Devices
40 91 19.36  Temperature Process Measurement Devices
40 91 19.39  Vapor Pressure Process Measurement Devices
40 91 19.43  Weight Process Measurement Devices
40 91 23  Miscellaneous Properties Measurement Devices
40 91 23.13  Acceleration Process Measurement Devices
40 91 23.16  Angle Process Measurement Devices
40 91 23.19  Color Process Measurement Devices
40 91 23.23  Count Process Measurement Devices
40 91 23.26  Distance Process Measurement Devices
40 91 23.29  Energy Process Measurement Devices
40 91 23.33  Flow Process Measurement Devices
40 91 23.36  Level Process Measurement Devices
40 91 23.39  Physical Resistance Process Measurement Devices
40 91 23.43  RPM Process Measurement Devices
40 91 23.46  Time Process Measurement Devices
40 91 23.49  Turbidity Process Measurement Devices
40 91 23.53  Velocity Process Measurement Devices

40 92 00  Primary Control Devices
40 92 13  Primary Control Valves
40 92 13.13  Electrically-Operated Primary Control Valves
40 92 13.16  Hydraulically-Operated Primary Control Valves
40 92 13.19  Pneumatically-Operated Primary Control Valves
40 92 13.23  Pressure-Relief Primary Control Valves
40 92 13.26  Solenoid Primary Control Valves
40 92 13.29  Specialty Primary Control Valves
40 92 29  Current-To-Pressure Converters
40 92 33  Self-Contained Flow Controllers
40 92 36  Linear Actuators and Positioners
40 92 39  Self-Contained Pressure Regulators
40 92 43  Rotary Actuators
40 92 46  Saturable Core Reactors
40 92 49  Variable Frequency Drives
40 92 53  Voltage-To-Pressure Converters

40 93 00  Analog Controllers/Recorders
   40 93 13  Analog Controllers
       40 93 13.13  Electronic Analog Controllers
       40 93 13.16  Electro-Hydraulic Analog Controllers
       40 93 13.19  Electro-Pneumatic Analog Controllers
       40 93 13.23  Hydraulic Analog Controllers
       40 93 13.26  Pneumatic Analog Controllers
       40 93 23  Chart Recorders

40 94 00  Digital Process Controllers
   40 94 13  Digital Process Control Computers
       40 94 13.13  Host Digital Process Control Computers
       40 94 13.16  Personal Digital Process Control Computers
       40 94 13.19  Personal Digital Assistant Digital Process Control Computers
       40 94 23  Distributed Process Control Systems
       40 94 33  Human – Machine Interfaces
       40 94 43  Programmable Logic Process Controllers

40 95 00  Process Control Hardware
   40 95 13  Process Control Panels and Hardware
       40 95 13.13  Local Process Control Panels and Hardware
       40 95 13.23  Main Process Control Panels and Hardware
       40 95 20  Process Control Display Devices
       40 95 23  Process Control Input/Output Modules
       40 95 26  Process Control Instrument Air Piping and Devices
       40 95 33  Process Control Networks
       40 95 33.13  Cabled Process Control Networks
       40 95 33.23  Fiber Optic Process Control Networks
       40 95 33.33  Wireless Process Control Networks
       40 95 43  Process Control Hardware Interfaces
       40 95 46  Process Control Mounting Racks and Supports
       40 95 49  Process Control Routers
       40 95 53  Process Control Switches
       40 95 56  Process Control Transformers
       40 95 63  Process Control Wireless Equipment
       40 95 63.13  Process Control Wireless Transmitters
       40 95 63.16  Process Control Wireless Receivers
       40 95 63.19  Process Control Wireless Repeaters
       40 95 73  Process Control Wiring
       40 95 73.23  Process Control Cable
       40 95 73.33  Process Control Conduit, Raceway and Supports
       40 95 73.43  Process Control Junction Boxes

40 96 00  Process Control Software
   40 96 10  Process Control Software Architecture
   40 96 15  Process Control Software Input/Output Lists
   40 96 20  Process Control Software Instrument Lists
   40 96 25  Process Control Software Logic Diagrams
   40 96 30  Process Control Software Loop Diagrams
   40 96 35  Process Control Software Programming
   40 96 40  Process Control Software Reports

40 97 00  Process Control Auxiliary Devices
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 97 10</td>
<td>Process Control Annunciators</td>
</tr>
<tr>
<td>40 97 15</td>
<td>Process Control Gages</td>
</tr>
<tr>
<td>40 97 20</td>
<td>Process Control Rotameters</td>
</tr>
<tr>
<td>40 97 25</td>
<td>Process Control Potentiometers</td>
</tr>
<tr>
<td>40 97 30</td>
<td>Process Control Test Equipment</td>
</tr>
</tbody>
</table>
41 00 00 Material Processing and Handling Equipment

41 01 00 Operation and Maintenance of Material Processing and Handling Equipment
41 01 10 Operation and Maintenance of Bulk Material Processing Equipment
41 01 20 Operation and Maintenance of Piece Material Handling Equipment
41 01 30 Operation and Maintenance of Manufacturing Equipment
41 01 40 Operation and Maintenance of Container Processing and Packaging
41 01 50 Operation and Maintenance of Material Storage
41 01 60 Operation and Maintenance of Mobile Plant Equipment

41 06 00 Schedules for Material Processing and Handling Equipment
41 06 10 Schedules for Bulk Material Processing Equipment
41 06 20 Schedules for Piece Material Handling Equipment
41 06 30 Schedules for Manufacturing Equipment
41 06 40 Schedules for Container Processing and Packaging
41 06 50 Schedules for Material Storage
41 06 60 Schedules for Mobile Plant Equipment

41 08 00 Commissioning of Material Processing and Handling Equipment
41 08 10 Commissioning of Bulk Material Processing Equipment
41 08 20 Commissioning of Piece Material Handling Equipment
41 08 30 Commissioning of Manufacturing Equipment
41 08 40 Commissioning of Container Processing and Packaging
41 08 50 Commissioning of Material Storage
41 08 60 Commissioning of Mobile Plant Equipment

41 10 00 Bulk Material Processing Equipment

41 11 00 Bulk Material Sizing Equipment
41 11 13 Bulk Material Agglomerators
41 11 16 Bulk Material Air Mill Classifiers
41 11 19 Bulk Material Centrifuges
41 11 23 Bulk Material Crushers
41 11 26 Bulk Material Cyclones
41 11 29 Bulk Material Fluid Bed Separators
41 11 33 Bulk Material Grinders
41 11 36 Bulk Material Homogenizers
41 11 39 Bulk Material Lump Breakers
41 11 43 Bulk Material Mills
41 11 46 Bulk Material Pulverizers
41 11 49 Bulk Material Screens
41 11 53 Bulk Material Shredders
41 11 56 Bulk Material Sieves

41 12 00 Bulk Material Conveying Equipment
41 12 13 Bulk Material Conveyors
41 12 13.13 Airlslide Bulk Material Conveyors
41 12 13.16 Auger Bulk Material Conveyors
41 12 13.19 Belt Bulk Material Conveyors
| 41 12 13.23 | Container Bulk Material Conveyors |
| 41 12 13.26 | Drag Chain Bulk Material Conveyors |
| 41 12 13.29 | Hopper Bulk Material Conveyors |
| 41 12 13.33 | Reciprocating Bulk Material Conveyors |
| 41 12 13.36 | Screw Bulk Material Conveyors |
| 41 12 13.39 | Stacking and Reclalm Bulk Material Conveyors |
| 41 12 13.43 | Trough Bulk Material Conveyors |
| 41 12 13.46 | Tube Bulk Material Conveyors |
| 41 12 13.49 | Vibratory Bulk Material Conveyors |
| 41 12 13.53 | Weigh-Belt Bulk Material Conveyors |
| 41 12 16 | Bucket Elevators |
| 41 12 19 | Pneumatic Conveyors |
| 41 12 19.13 | Dense Phase Pneumatic Conveyors |
| 41 12 19.16 | Dilute Phase Pneumatic Conveyors |

### 41 13 00 Bulk Material Feeders

| 41 13.13 | Bin Activators/Live Bin Bottoms |
| 41 13.23 | Feeders |
| 41 13.23.13 | Airlock Bulk Material Feeders |
| 41 13.23.16 | Apron Bulk Material Feeders |
| 41 13.23.19 | Rotary-Valve Bulk Material Feeders |
| 41 13.23.23 | Screw Bulk Material Feeders |
| 41 13.23.26 | Vibratory Bulk Material Feeders |
| 41 13.23.29 | Volumetric Bulk Material Feeders |
| 41 13.23.33 | Weigh Bulk Material Feeders |

### 41 14 00 Batching Equipment

| 41 14 13 | Bag-Handling Batching Equipment |
| 41 14 16 | Batch Cars/Transports |
| 41 14 19 | Batch Hoppers |
| 41 14 23 | Bulk Bag-Handling Batching Equipment |
| 41 14 26 | Blenders |
| 41 14 29 | Drum-Handling Batching Equipment |
| 41 14 33 | Mixers |
| 41 14 36 | Weigh Scales |

### 41 20 00 Piece Material Handling Equipment

#### 41 21 00 Conveyors

| 41 21 13 | Automatic Guided Vehicle Systems |
| 41 21 23 | Piece Material Conveyors |
| 41 21 23.13 | Belt Piece Material Conveyors |
| 41 21 23.16 | Container Piece Material Conveyors |
| 41 21 23.19 | Drag-Chain Piece Material Conveyors |
| 41 21 23.23 | Hopper Piece Material Conveyors |
| 41 21 23.26 | Monorail Piece Material Conveyors |
| 41 21 23.29 | Power and Free Piece Material Conveyors |
| 41 21 23.33 | Reciprocating Piece Material Conveyors |
| 41 21 23.36 | Roller Piece Material Conveyors |
| 41 21 23.39 | Vibratory Piece Material Conveyors |
| 41 21 23.43 | Walking-Beam Piece Material Conveyors |
| 41 21 23.46 | Weigh-Belt Piece Material Conveyors |
| 41 21 23.53 | Postal Conveyors |
| 41 21 26 | Piece Material Diverter Gates |
| 41 21 29 | Piece Material Gravity Slides |
| 41 21 33 | Piece Material Transfer Cars |
41 21 36  Piece Material Turntables
41 21 39  Piece Material Feeders
41 21 39.13 Piece Material Vibratory Feeders

41 22 00  Cranes and Hoists
41 22 13  Cranes
41 22 13.13 Bridge Cranes
41 22 13.16 Gantry Cranes
41 22 13.19 Jib Cranes
41 22 13.23 Mobile Cranes
41 22 13.26 Tower Cranes
41 22 13.29 Specialty Cranes
41 22 23  Hoists
41 22 23.13 Fixed Hoists
41 22 23.16 Portable Hoists
41 22 23.19 Monorail Hoists
41 22 23.23 Specialty Hoists
41 22 33  Derricks

41 23 00  Lifting Devices
41 23 13  Clamps
41 23 16  Grabs
41 23 19  Hooks
41 23 23  Lifts
41 23 26  Slings
41 23 29  Spreader Bars/Beams
41 23 33  Tongs

41 24 00  Specialty Material Handling Equipment
41 24 13  Aeration Devices
41 24 16  Bin Vibrators
41 24 19  Dehydrators
41 24 23  Hydrators
41 24 26  Hydraulic Power Systems
41 24 29  Lubrication Systems
41 24 33  Magnetic Separators
41 24 36  Metal Detectors
41 24 39  Railcar Movers
41 24 43  Turnheads/Distributors
41 24 46  Sorting Machines
41 24 46.13 Postal Sorting Machines

41 30 00  Manufacturing Equipment
41 31 00  Manufacturing Lines and Equipment
41 31 13  Manufacturing Lines
41 31 13.13 Assembly Lines
41 31 13.16 Casting Lines
41 31 13.19 Coating Lines
41 31 13.23 Converting Lines
41 31 13.26 Disassembly Lines
41 31 13.29 Extrusion Lines
41 31 13.33 Machining Lines
41 31 13.36 Molding Lines
41 31 13.39 Finishing/Painting Lines
41 31 13.43 Painting Lines
41 31 13.46 Pickling Lines
41 31 13.49 Plating Lines
41 31 13.53 Polishing Lines
41 31 13.56 Press Lines
41 31 13.59 Rolling/Calendaring Lines
41 31 13.63 Web Processing Lines
41 31 16 Pick and Place Systems
41 31 19 Manufacturing-Line Robots
41 31 23 Specialty Assembly Machines

41 32 00 Forming Equipment
41 32 13 Bending Equipment
41 32 16 Blow-Molding Equipment
41 32 19 Brake-Forming Equipment
41 32 23 Cold-Forming Equipment
41 32 26 Die-Casting Equipment
41 32 29 Drawing Equipment
41 32 33 Electroforming Equipment
41 32 36 Forging Equipment
41 32 39 Extruding Equipment
41 32 43 Metal-Spinning Equipment
41 32 46 Piercing Equipment
41 32 49 Powder Metal-Forming Equipment
41 32 53 Pressing Equipment
41 32 56 Roll-Forming Equipment
41 32 59 Shearing Equipment
41 32 63 Spinning Equipment
41 32 66 Stretching/Leveling Equipment
41 32 69 Swaging Equipment

41 33 00 Machining Equipment
41 33 13 Automatic Screw Machining Equipment
41 33 16 Boring Equipment
41 33 19 Broaching Equipment
41 33 23 Drilling Equipment
41 33 26 Electro-Discharge Machining Equipment
41 33 29 Grinding Equipment
41 33 33 Hobbing Equipment
41 33 36 Lapping Equipment
41 33 39 Lathe Equipment
41 33 43 Leveling Equipment
41 33 46 Machining Center Equipment
41 33 53 Milling Equipment
41 33 53.13 Horizontal Milling Equipment
41 33 53.16 Vertical Milling Equipment
41 33 60 Multi-Axis Machine Equipment
41 33 63 Planing Equipment
41 33 66 Reaming Equipment
41 33 69 Routing Equipment
41 33 73 Sawing Equipment
41 33 76 Shaping Equipment
41 33 79 Threading Equipment

41 34 00 Finishing Equipment
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>41 34 13</td>
<td>Anodizing Equipment</td>
</tr>
<tr>
<td>41 34 16</td>
<td>Barrel Tumbling Equipment</td>
</tr>
<tr>
<td>41 34 23</td>
<td>Coating Equipment</td>
</tr>
<tr>
<td>41 34 23.13</td>
<td>Diffusion Coating Equipment</td>
</tr>
<tr>
<td>41 34 23.16</td>
<td>Dipping Coating Equipment</td>
</tr>
<tr>
<td>41 34 23.19</td>
<td>Film Coating Equipment</td>
</tr>
<tr>
<td>41 34 23.23</td>
<td>Phosphatizing Coating Equipment</td>
</tr>
<tr>
<td>41 34 23.26</td>
<td>Plasma Coating Equipment</td>
</tr>
<tr>
<td>41 34 23.29</td>
<td>Hardface Welding Coating Equipment</td>
</tr>
<tr>
<td>41 34 23.33</td>
<td>Spray Painting Booth</td>
</tr>
<tr>
<td>41 34 26</td>
<td>Deburring Equipment</td>
</tr>
<tr>
<td>41 34 36</td>
<td>Electroplating Equipment</td>
</tr>
<tr>
<td>41 34 46</td>
<td>Grinding Equipment</td>
</tr>
<tr>
<td>41 34 49</td>
<td>Honing Equipment</td>
</tr>
<tr>
<td>41 34 53</td>
<td>Lapping Equipment</td>
</tr>
<tr>
<td>41 34 56</td>
<td>Shot Peening Equipment</td>
</tr>
<tr>
<td>41 34 59</td>
<td>Superfinishing/Polishing Equipment</td>
</tr>
<tr>
<td>41 35 00</td>
<td>Dies and Molds</td>
</tr>
<tr>
<td>41 35 13</td>
<td>Dies</td>
</tr>
<tr>
<td>41 35 13.13</td>
<td>Drawing Dies</td>
</tr>
<tr>
<td>41 35 13.16</td>
<td>Extrusion Dies</td>
</tr>
<tr>
<td>41 35 13.19</td>
<td>Press Dies</td>
</tr>
<tr>
<td>41 35 13.23</td>
<td>Rotary Dies</td>
</tr>
<tr>
<td>41 35 13.26</td>
<td>Rule Dies</td>
</tr>
<tr>
<td>41 35 33</td>
<td>Molds</td>
</tr>
<tr>
<td>41 36 00</td>
<td>Assembly and Testing Equipment</td>
</tr>
<tr>
<td>41 36 13</td>
<td>Applicators</td>
</tr>
<tr>
<td>41 36 13.13</td>
<td>Adhesive Applicators</td>
</tr>
<tr>
<td>41 36 13.16</td>
<td>Lubricant Applicators</td>
</tr>
<tr>
<td>41 36 13.19</td>
<td>Sealer Applicators</td>
</tr>
<tr>
<td>41 36 16</td>
<td>Fixtures and Jigs</td>
</tr>
<tr>
<td>41 36 19</td>
<td>Joining Equipment</td>
</tr>
<tr>
<td>41 36 19.13</td>
<td>Adhesive Joining Equipment</td>
</tr>
<tr>
<td>41 36 19.16</td>
<td>Arc-Welding Equipment</td>
</tr>
<tr>
<td>41 36 19.19</td>
<td>Brazing Equipment</td>
</tr>
<tr>
<td>41 36 19.23</td>
<td>Resistance-Welding Equipment</td>
</tr>
<tr>
<td>41 36 19.26</td>
<td>Riveting Equipment</td>
</tr>
<tr>
<td>41 36 19.29</td>
<td>Sintering Equipment</td>
</tr>
<tr>
<td>41 36 19.33</td>
<td>Soldering Equipment</td>
</tr>
<tr>
<td>41 36 23</td>
<td>Cutting Equipment</td>
</tr>
<tr>
<td>41 36 23.13</td>
<td>Cutting Torches</td>
</tr>
<tr>
<td>41 36 23.16</td>
<td>High-Pressure Water Cutting Equipment</td>
</tr>
<tr>
<td>41 36 23.19</td>
<td>Laser Cutting Equipment</td>
</tr>
<tr>
<td>41 36 23.23</td>
<td>Plasma Cutting Equipment</td>
</tr>
<tr>
<td>41 36 26</td>
<td>Process Tools</td>
</tr>
<tr>
<td>41 36 26.13</td>
<td>Air Process Tools</td>
</tr>
<tr>
<td>41 36 26.16</td>
<td>Electric Process Tools</td>
</tr>
<tr>
<td>41 36 26.19</td>
<td>Hydraulic Process Tools</td>
</tr>
<tr>
<td>41 36 26.23</td>
<td>Manual Process Tools</td>
</tr>
<tr>
<td>41 36 29</td>
<td>Manufacturing Measurement and Testing Equipment</td>
</tr>
<tr>
<td>41 36 29.13</td>
<td>Gages, Rules, and Blocks</td>
</tr>
<tr>
<td>41 36 29.16</td>
<td>Penetrant Measurement and Testing Equipment</td>
</tr>
<tr>
<td>41 36 29.19</td>
<td>Laser Measurement and Testing Equipment</td>
</tr>
</tbody>
</table>
41 36 29.23 Magnaflux Measurement and Testing Equipment
41 36 29.26 Optical Comparators
41 36 29.29 Profilometers
41 36 29.33 Radiograph Measurement and Testing Equipment
41 36 29.36 Surface Tables
41 36 29.39 Ultrasonic Measurement and Testing Equipment
41 36 29.43 Test Weigh Scales

41 40 00 Container Processing and Packaging

41 41 00 Container Filling and Sealing
41 41 13 Bulk Container Fillers/ Packers
41 41 16 Container Cappers
41 41 19 Container Fillers
41 41 19.13 Bag Fillers
41 41 19.16 Box Fillers
41 41 19.19 Bottle Fillers
41 41 23 Container Sealers

41 42 00 Container Packing Equipment
41 42 13 Box Packing Equipment
41 42 13.13 Box Makers
41 42 13.16 Box Packers
41 42 16 Bulk Material Loaders
41 42 16.13 Container Bulk Material Loaders
41 42 16.23 Truck Bulk Material Loaders
41 42 16.26 Railcar Bulk Material Loaders
41 42 16.29 Ship Bulk Material Loaders
41 42 16.33 Barge Bulk Material Loaders
41 42 19 Carton Packers
41 42 23 Carton Sealers
41 42 26 Carton Shrink Wrappers
41 42 29 Carton Stackers

41 43 00 Shipping Packaging
41 43 13 Banding/Strapping Equipment
41 43 16 Barcode Equipment
41 43 16.13 Barcode Readers
41 43 16.16 Barcode Printers
41 43 19 Labeling Equipment
41 43 23 Pallet Stacking/Wrapping Equipment

41 50 00 Material Storage

41 51 00 Automatic Material Storage
41 51 13 Automatic Storage/Automatic Retrieval Systems

41 52 00 Bulk Material Storage
41 52 13 Bins and Hoppers
41 52 13.13 Fixed Bins and Hoppers
41 52 13.23 Portable Bins and Hoppers
41 52 13.33 Bulk Material Containers
41 52 13.43 Returnable Bins and Hoppers
41 52 13.53 Throwaway Bins and Hoppers
41 52 16 Silos
41 52 16.13 Concrete Silos
41 52 16.16 Concrete Masonry Unit Silos
41 52 16.19 Steel Silos
41 52 19  Material Storage Tanks
41 52 19.13  Horizontal Material Storage Tanks
41 52 19.23  Vertical Material Storage Tanks
41 52 19.33  Portable Material Storage Tanks

41 53 00  Storage Equipment and Systems
41 53 13  Storage Cabinets
41 53 16  Container Storage Systems
41 53 19  Flat Files
41 53 23  Storage Racks
41 53 23.13  Mobile Storage Racks
41 53 26  Mezzanine Storage Systems

41 60 00  Mobile Plant Equipment

41 61 00  Mobile Earth Moving Equipment
41 61 13  Backhoes
41 61 16  Bulldozers
41 61 19  Compactors
41 61 23  Excavators
41 61 26  Graders
41 61 29  Payloaders
41 61 33  Trenchers

41 62 00  Trucks
41 62 13  Cement Mixer Trucks
41 62 16  Dump Trucks
41 62 19  Flatbed Trucks
41 62 23  Forklift Trucks
41 62 26  Pickup Trucks
41 62 29  Tank Trucks

41 63 00  General Vehicles
41 63 13  Bicycles
41 63 16  Carts
41 63 19  Maintenance Vehicles
41 63 23  Utility Vehicles
41 63 26  Vans
41 63 29  Wagons

41 64 00  Rail Vehicles
41 64 13  Locomotives
41 64 13.13  Diesel Locomotives
41 64 13.23  Electric Locomotives
41 64 16  Mobile Railcar Movers

41 65 00  Mobile Support Equipment
41 65 13  Mobile Air Compressors
41 65 16  Mobile Generators
41 65 19  Mobile Welders

41 66 00  Miscellaneous Mobile Equipment
41 66 13  Mobile Boring and Drilling Rigs
41 66 16  Mobile Lifts and Cherrypickers
41 66 19  Mobile Paving Equipment
41 66 23  Mobile Sweepers/Vacuums
41 67 00  Plant Maintenance Equipment
41 67 13  Plant Lube Oil System
41 67 16  Plant Fall Protection Equipment
41 67 19  Plant Safety Equipment
41 67 23  Plant Maintenance Tools
41 67 26  Plant Maintenance Washing Equipment
42 00 00 Process Heating, Cooling, and Drying Equipment

42 01 00 Operation and Maintenance of Process Heating, Cooling, and Drying Equipment
   42 01 10 Operation and Maintenance of Process Heating Equipment
   42 01 20 Operation and Maintenance of Process Cooling Equipment
   42 01 30 Operation and Maintenance of Process Drying Equipment

42 06 00 Schedules for Process Heating, Cooling, and Drying Equipment
   42 06 10 Schedules for Process Heating Equipment
   42 06 20 Schedules for Process Cooling Equipment
   42 06 30 Schedules for Process Drying Equipment

42 08 00 Commissioning of Process Heating, Cooling, and Drying Equipment
   42 08 10 Commissioning of Heating Equipment
   42 08 20 Commissioning of Cooling Equipment
   42 08 30 Commissioning of Drying Equipment

42 10 00 Process Heating Equipment

42 11 00 Process Boilers
   42 11 13 Low-Pressure Process Boilers
   42 11 16 Intermediate-Pressure Process Boilers
   42 11 19 High-Pressure Process Boilers
   42 11 23 Specialty Process Boilers

42 12 00 Process Heaters
   42 12 13 Electric Process Heaters
   42 12 16 Fuel-Fired Process Heaters
   42 12 19 Thermoelectric Process Heaters
   42 12 23 Solar Process Heaters
   42 12 26 Specialty Process Heaters

42 13 00 Industrial Heat Exchangers and Recuperators
   42 13 13 Industrial Gas-to-Gas Heat Exchangers
   42 13 16 Industrial Liquid-to-Gas/Gas-to-Liquid Heat Exchangers
   42 13 19 Industrial Liquid-to-Liquid Heat Exchangers
   42 13 23 Industrial Gas Radiation Heat Exchangers
   42 13 26 Industrial Solar Radiation Heat Exchangers

42 14 00 Industrial Furnaces
   42 14 13 Annealing Furnaces
   42 14 16 Atmosphere Generators
   42 14 19 Industrial Baking Furnaces
   42 14 23 Industrial Brazing Furnaces
   42 14 26 Industrial Calcining Furnaces
   42 14 29 Industrial Heat-Treating Furnaces
   42 14 33 Industrial Melting Furnaces
   42 14 33.13 Ceramics and Glass Melting Furnaces
   42 14 33.16 Ferrous Melting Furnaces
   42 14 33.19 Non-Ferrous Melting Furnaces
42 14 36  Primary Refining Furnaces
42 14 43  Reactor Furnaces
42 14 46  Industrial Reheat Furnaces
42 14 53  Industrial Sintering Furnaces
42 14 56  Industrial Vacuum Furnaces

42 15 00  Industrial Ovens
42 15 13  Industrial Drying Ovens
42 15 16  Industrial Curing Ovens
42 15 19  Industrial Specialty Ovens

42 20 00  Process Cooling Equipment

42 21 00  Process Cooling Towers
42 21 13  Open-Circuit Process Cooling Towers
42 21 16  Closed-Circuit Process Cooling Towers

42 22 00  Process Chillers and Coolers
42 22 13  Centrifugal Process Chillers and Coolers
42 22 16  Reciprocating Process Chillers and Coolers
42 22 19  Refrigerant Process Chillers and Coolers
42 22 23  Rotary Process Chillers and Coolers
42 22 26  Thermoelectric Process Chillers and Coolers

42 23 00  Process Condensers and Evaporators
42 23 13  Process Condensers
42 23 16  Process Cooling Evaporators
42 23 19  Process Humidifiers

42 30 00  Process Drying Equipment

42 31 00  Gas Dryers and Dehumidifiers
42 31 13  Drying Evaporators
42 31 16  Desiccant Equipment
42 31 19  Regenerative Dryers
42 31 23  Refrigerant Dryers

42 32 00  Material Dryers
42 32 13  Centrifugal Material Dryers
42 32 16  Conveyor Material Dryers
42 32 19  Flash Material Dryers
42 32 23  Fluid-Bed Material Dryers
42 32 26  Material Roasters
42 32 29  Rotary-Kiln Material Dryers
42 32 33  Spray Material Dryers
42 32 36  Tower Material Dryers
42 32 39  Vacuum Material Dryers
42 32 43  Specialty Material Dryers
43 00 00 Process Gas and Liquid Handling, Purification, and Storage Equipment

43 01 00 Operation and Maintenance of Process Gas and Liquid Handling, Purification, and Storage Equipment

43 01 10 Operation and Maintenance of Gas Handling Equipment
43 01 10.13 Gas Blowers Maintenance and Rehabilitation
43 01 10.16 Gas Compressors Maintenance and Rehabilitation
43 01 20 Operation and Maintenance of Liquid Handling Equipment
43 01 20.13 Liquid Pumps Maintenance and Rehabilitation
43 01 20.16 Liquid Process Equipment Maintenance and Rehabilitation
43 01 30 Operation and Maintenance of Gas and Liquid Hi-Purification Equipment
43 01 40 Operation and Maintenance of Gas and Liquid Storage
43 01 40.13 Non-pressureized Tanks Cleaning, Maintenance, and Rehabilitation
43 01 40.16 Pressureized Tanks Cleaning, Maintenance, and Rehabilitation

43 05 00 Common Work Results for Process Gas and Liquid Handling, Purification, and Storage Equipment

43 05 10 Common Work Results for Gas Handling Equipment
43 05 20 Common Work Results for Liquid Handling Equipment
43 05 30 Common Work Results for Gas and Liquid Hi-Purification Equipment
43 05 40 Common Work Results for Gas and Liquid Storage

43 06 00 Schedules for Process Gas and Liquid Handling, Purification, and Storage Equipment

43 06 10 Schedules for Gas Handling Equipment
43 06 20 Schedules for Liquid Handling Equipment
43 06 30 Schedules for Gas and Liquid Hi-Purification Equipment
43 06 40 Schedules for Gas and Liquid Storage

43 08 00 Commissioning of Process Gas and Liquid Handling, Purification, and Storage Equipment

43 08 10 Commissioning of Gas Handling Equipment
43 08 20 Commissioning of Liquid Handling Equipment
43 08 30 Commissioning of Gas and Liquid Purification Equipment
43 08 40 Commissioning of Gas and Liquid Storage

43 10 00 Gas Handling Equipment

43 11 00 Gas Fans, Blowers, Pumps and Boosters

43 11 11 Direct Drive Single Stage Centrifugal Blowers
43 11 12 Integraitsly Geared Single Stage Centrifugal Blowers
43 11 13 Separately Geared Single Stage Centrifugal Blowers
43 11 14 Direct Drive Integral Shaft Single Stage Centrifugal Blowers
43 11 17 Horizontally Split Multistage Centrifugal Blowers
43 11 18 Vertically Split Multistage Centrifugal Blowers
43 11 19 Centrifugal Fans
43 11 23 Axial Blowers
43 11 26 Axial Fans
43 11 31 Rotary Helical Screw Blowers
43 11 33 Rotary Lobe Blowers
43 11 34 Regenerative Rotary Blowers
43 11 36 Rotary Vane Blowers
43 11 41 Gas-handling Venturi Jet Pumps
43 11 43 Gas-handling Vacuum Pumps
43 11 46 Gas Boosters

**43 12 00 Gas Compressors**
43 12 11 Centrifugal Compressors
43 12 13 Diagonal or Mixed-flow Compressors
43 12 16 Axial-flow Compressors
43 12 33 Single-acting Reciprocating Compressors
43 12 34 Double-acting Reciprocating Compressors
43 12 37 Diaphragm Reciprocating Compressors
43 12 51 Rotary Screw Compressors
43 12 53 Rotary Vane Compressors
43 12 56 Rotary Liquid-ring Compressors
43 12 57 Rotary Scroll Compressors

**43 13 00 Gas Process Equipment**
43 13 13 Gas Blenders
43 13 19 Gas Mixers
43 13 23 Gas Pressure Regulators
43 13 31 Gas Separation Equipment
43 13 33 Gas Dehydration Equipment
43 13 36 Combined Gas Separation and Dehydration Equipment
43 13 39 Gas Recovery and Condensing Equipment
43 13 43 Waste Gas Burner System
43 13 46 Gas Control and Safety Equipment

**43 15 00 Process Air and Gas Filters**
43 15 13 Blower Intake and Turbine Air Filters
43 15 13.13 Static Prefilters
43 15 13.16 Static Final Filters
43 15 13.19 Static HEPA Filters
43 15 13.23 Pulse Filters
43 15 33 Grease Filters
43 15 43 Mist Eliminators
43 15 63 High-temperature Air Filters
43 15 73 Multiple-application Air Filters
43 15 73.11 Air Filter Media
43 15 73.12 Permanent Washable Filters
43 15 73.13 Poly-ring Air Filters
43 15 73.15 Rigid Cell Filters
43 15 73.17 Automatic Roll-type Air Filters
43 15 76 Chemical Media for Air and Gas Filters

**43 20 00 Liquid Handling Equipment**

**43 21 00 Liquid Pumps**
43 21 13 Centrifugal Liquid Pumps
43 21 16 Diaphragm Liquid Pumps
43 21 19 Dispensing Liquid Pumps
43 21 23 Drum Liquid Pumps
43 21 26 Gear Liquid Pumps
43 21 29 Metering Liquid Pumps
43 21 33 Piston/Plunger Liquid Pumps
43 21 36 Positive Displacement Liquid Pumps
Submersible Liquid Pumps
Sump Liquid Pumps
Vane Liquid Pumps

**43 22 00 Liquid Process Equipment**
- Liquid Aeration Devices
- Liquid Agitators
- Liquid Blenders
- Liquid Centrifuges
- Liquid Deaerators
- Drum Handling Liquid Process Equipment
- Liquid Emulsifiers
- Liquid Evaporators
- Liquid Feeders
- Liquid Process Mixers
- Liquid Process Pressure Regulators
- Liquid Separation Towers
- Liquid Weigh Systems
- Liquid Grease Receiving and Dewatering Systems
- Liquid Fillers
- Liquid Screeners
- Liquid Clarifiers
- Liquid Classifiers
- Liquid Homogenizers
- Liquid Presses
- Liquid Versators
- Liquid Votators

**43 27 00 Process Liquid Filters**
- Cyclonic Liquid Filters
- Centrifugal Horizontal Pressure Leaf Liquid Filters
- Press Liquid Filters
- Liquid Bag Filters
- Mechanically Cleaned Liquid Filters
- Tubular Backwashing Liquid Filters
- Vacuum Belt Liquid Filters
- Woven Media Liquid Filters
- Disc Liquid Filters
- Rotating Drum Liquid Filters
- Layer Liquid Filters
- Candle Liquid Filters
- Vertical Leaf Liquid Filters
- Nonwoven Media Liquid Filters
- Surface Liquid Filters
- Depth Liquid Filters

**43 30 00 Gas and Liquid Purification Equipment**

**43 31 00 Gas and Liquid Purification Filtration Equipment**
- Gas and Liquid Purification Filters
- Activated Carbon-Gas and Liquid Purification Filters
- Gas and Liquid Purification Filter Presses
- High-Purity Cartridge Gas and Liquid Purification Filters
- Membrane Diaphragm Gas and Liquid Purification Filters
43 31 13.26 Multimedia Gas and Liquid Purification Filters
43 31 13.29 Pretreatment Cartridge Gas and Liquid Purification Filters
43 31 13.33 Ultrafilter Units
43 32 00 Gas and Liquid Purification Process Equipment
43 32 13 Gas and Liquid Purification Process Beds
43 32 13.13 Anion-Gas and Liquid Purification Process Beds
43 32 23 Cation-Gas and Liquid Purification Process Beds
43 32 26 Gas and Liquid Purification Decarbonators
43 32 29 Electronic Deionization Purification Units
43 32 33 External Regeneration Systems
43 32 36 Mixed-Bed Ion-Exchange Vessels
43 32 39 Gas and Liquid Purification Mixed Beds
43 32 39.13 Externally Regenerable Gas and Liquid Purification Mixed Beds
43 32 39.16 In-Situ Regenerable Gas and Liquid Purification Mixed Beds
43 32 53 Packed-Bed Ion-Exchange Vessels
43 32 56 Reverse-Osmosis Purification Units
43 32 59 Gas and Liquid Purification Scrubbers
43 32 63 Ultraviolet Sterilizers
43 32 66 Vacuum Degasifiers
43 32 69 Chemical Feed Systems
43 32 73 Ozonation Equipment
43 32 76 Chlorination Equipment
43 40 00 Gas and Liquid Storage
43 41 00 Non-pressurized Tanks and Vessels
43 41 11 Bolted Steel Tanks
43 41 13 Welded Steel Tanks
43 41 13.13 Glass-lined Welded Steel Tanks
43 41 13.23 Rubber-lined Welded Steel Tanks
43 41 13.33 Epoxy-lined Welded Steel Tanks
43 41 13.43 Ceramic-lined Welded Steel Tanks
43 41 23 Stainless Steel Tanks
43 41 26 Aluminum Tanks
43 41 31 Metallic Specialty Tanks
43 41 41 Polyvinyl Chloride Tanks
43 41 43 Polyethylene Tanks
43 41 45 Fiberglass Reinforced Plastic Tanks
43 41 53 Wood Stave Tanks
43 41 63 Precast Concrete Tanks
43 41 73 Ceramic Tanks
43 41 83 Non-metallic Specialty Tanks
43 42 00 Pressurized Tanks and Vessels
43 42 11 Cast Iron Pressure Tanks
43 42 13 Ductile Iron Pressure Tanks
43 42 21 Welded Steel Pressure Tanks
43 42 23 Glass-lined Steel Pressure Tanks
43 42 26 Welded Steel Gas Storage Sphere
43 42 33 Stainless Steel Pressure Tanks
43 42 36 Aluminum Pressure Tanks
43 42 41 Metallic Specialty Pressure Tanks
<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>43 42 53</td>
<td>Fiberglass Reinforced Plastic Pressure Tanks</td>
</tr>
<tr>
<td>43 42 83</td>
<td>Non-metallic Specialty Pressure Tanks</td>
</tr>
</tbody>
</table>
44 00 00 Pollution and Waste Control Equipment

44 01 00 Operation and Maintenance of Pollution and Waste Control Equipment
- 44 01 10 Operation and Maintenance of Air Pollution Control
- 44 01 20 Operation and Maintenance of Noise Pollution Control
- 44 01 30 Operation and Maintenance of Odor Control Equipment
- 44 01 40 Operation and Maintenance of Water Pollution Control Equipment
- 44 01 50 Operation and Maintenance of Solid Waste Control and Reuse
- 44 01 60 Operation and Maintenance of Waste Thermal Processing Equipment

44 05 00 Common Work Results for Pollution and Waste Control Equipment

44 06 00 Schedules for Pollution and Waste Control Equipment
- 44 06 10 Schedules for Air Pollution Control
- 44 06 20 Schedules for Noise Pollution Control
- 44 06 30 Schedules for Odor Control Equipment
- 44 06 40 Schedules for Water Pollution Control Equipment
- 44 06 50 Schedules for Solid Waste Control and Reuse
- 44 06 60 Schedules for Waste Thermal Processing Equipment

44 08 00 Commissioning of Pollution and Waste Control Equipment
- 44 08 10 Commissioning of Air Pollution Control
- 44 08 20 Commissioning of Noise Pollution Control
- 44 08 30 Commissioning of Odor Control Equipment
- 44 08 40 Commissioning Water Pollution Control Equipment
- 44 08 50 Commissioning Solid Waste Control and Reuse
- 44 08 60 Commissioning of Waste Thermal Processing Equipment

44 10 00 Air Pollution Control

44 11 00 Particulate Control Equipment
- 44 11 13 Fugitive Dust Control
- 44 11 16 Fugitive Dust Barrier Systems
- 44 11 19 Atmospheric Air Quality Monitoring Equipment
- 44 11 20 Gravitational Separators
- 44 11 31 Venturi Scrubbing Equipment
- 44 11 33 Spray Tower/Chamber Scrubbing Equipment
- 44 11 36 Cyclone Scrubbing Equipment
- 44 11 51 Pulse Jet Fabric Filtration Equipment
- 44 11 53 Reverse Flow Fabric Filtration Equipment
- 44 11 54 Shake/Deflate Fabric Filtration Equipment
- 44 11 56 Cartridge Filtration Equipment
- 44 11 59 Disposable Dry Filtration Equipment
- 44 11 71 Cyclone Dust Collection Equipment
- 44 11 73 Multicyclone Dust Collection Equipment
- 44 11 76 Mist Elimination Equipment
- 44 11 93 Wet Electrostatic Precipitator Equipment
- 44 11 96 Dry Plate Electrostatic Precipitator Equipment
44 13 00  Gaseous Air Pollution Control Equipment
44 13 11  Spray Tower/Chamber Absorption Equipment
44 13 13  Packed Tower/Chamber Absorption Equipment
44 13 14  Tray Tower Absorption Equipment
44 13 16  Jet Bubbling Reactor Equipment
44 13 17  Venturi Absorption Equipment
44 13 20  Vacuum Extraction Systems
44 13 31  Powdered Injection Adsorption Equipment
44 13 33  Fluidized Bed Adsorption Equipment
44 13 34  Fixed Bed Adsorption Equipment
44 13 36  Rotary Bed Adsorption Equipment
44 13 39  Radial Bed Adsorption Equipment
44 13 51  Thermal Oxidation Equipment
44 13 53  Catalytic Oxidation Equipment
44 13 56  Flare Oxidation Equipment
44 13 59  Claus Sulfur Recovery Equipment
44 13 71  Thermal Reduction Equipment
44 13 73  Catalytic Reduction Equipment
44 13 76  Non-catalytic Reduction Equipment
44 13 77  Selective Non-catalytic Reduction Equipment
44 13 81  Condensation Systems
44 13 83  Contact Condensing Equipment
44 13 86  Solvent Recovery Equipment
44 13 91  Biofilter Media
44 13 93  Fixed Bed Biofilter Equipment
44 13 96  Fixed Bed Biotrickling Filter Equipment
44 13 97  Fixed Bed Bioscrubbing Equipment

44 20 00  Noise Pollution Control

44 21 00  Noise Pollution Control Equipment
44 21 13  Fixed Noise Abatement Barriers
44 21 16  Flexible Noise Abatement Barriers
44 21 19  Portable Noise Abatement Barriers
44 21 23  Noise Pollution Silencers
44 21 26  Frequency Cancellers

44 30 00  Odor Control

44 31 00  Odor Treatment Equipment
44 31 11  Wet Chemical Packed Tower Odor Control Equipment
44 31 13  Chemical Mist System Odor Control Equipment
44 31 16  Activated Carbon Adsorption Odor Control Equipment
44 31 19  Packaged Odor Control Systems
44 31 21  Odor Control Biofilters
44 31 28  Odor Control Biofilter Aeration Floor
44 31 29  Odor Control Biofilter Media
44 31 31  Odor Control Biotrickling Filter Equipment
44 31 33  Odor Control Bioscrubbing Equipment
44 31 41  Odor Control Vapor Combustion Equipment
44 31 83  Adjusting and Balancing Odor Control Systems
44 32 00  Odor Dispersing and Masking/Counteracting Equipment
  44 32 13  Odor Dispersing Exhaust Stacks
  44 32 13.13 Fan-equipped Odor Dispersing Exhaust Stacks
  44 32 23  Odor Masking/Counteracting Equipment

44 40 00  Water Pollution Control Equipment

44 41 00  Water Pollution Containment and Cleanup Equipment
  44 41 13  Spill Cleanup
  44 41 21  Containment Booms
  44 41 23  Marine Spill Accessories
  44 41 31  Spill Decks
  44 41 32  Drum Containment Units
  44 41 33  Containment Pallets
  44 41 34  Prefabricated Spill Containment Curbing
  44 41 36  Prefabricated Spill Containment Berms
  44 41 37  Prefabricated Berms for Tank Containment
  44 41 41  Collapsible Storage Tanks

44 50 00  Solid Waste Control and Reuse

44 51 00  Solid Waste Collection, Transfer, and Hauling Equipment
  44 51 13  Solid Waste Portable Containers
  44 51 16  Solid Waste Stationary Containers
  44 51 23  Solid Waste Transfer Trailers

44 53 00  Solid Waste Processing Equipment
  44 53 11  Live-floor Storage Bins
  44 53 13  Refuse Cranes and Accessories
  44 53 16  Solid Waste Screens
  44 53 21  Car Crushers
  44 53 23  Shears and Guillotines
  44 53 26  Shredders and Grinders
  44 53 27  Perforators
  44 53 31  Bag Breakers
  44 53 33  Granulators
  44 53 36  Crumb Rubber Systems
  44 53 39  Briquetters
  44 53 41  Vibratory Table Separation Equipment
  44 53 43  Ferrous Metals Separation Equipment
  44 53 44  Eddy Current Separators
  44 53 46  Single-stream Materials Separation Equipment
  44 53 49  Ballistic Separators
  44 53 51  Air Classifying Equipment
  44 53 52  Air Knives
  44 53 53  Optical Sorting Equipment
  44 53 56  Packaged Sorting Stations
  44 53 59  Packaged Reclaimer Stations
  44 53 61  Solid Waste Compactors
  44 53 63  Solid Waste Baling Equipment
  44 53 64  Bagging Equipment
44 53 66  Wrappers
44 53 73  Solid Waste Liquid Extraction Equipment

44 55 00  Composting Equipment
44 55 11  Electromechanical Composters
44 55 13  Compost Screening Equipment
44 55 16  Compost Shredding Equipment
44 55 23  Compost Pile Turning Equipment
44 55 26  Compost Mixing and Blending Equipment
44 55 33  In-vessel Composting Equipment
44 55 43  Compost Pad System
44 55 73  Compost Liquid Extraction Equipment

44 60 00  Waste Thermal Processing Equipment

44 61 00  Waste-to-Energy Plants
44 61 13  Waste Receiving, Management, and Feed Equipment
44 61 16  Mass Burn Combustion Equipment
44 61 23  Refuse-derived Fuel Feed Equipment
44 61 26  Refuse-derived Fuel Combustion Equipment
44 61 29  Modular Combustion System Equipment
44 61 31  Ash Handling Equipment
44 61 33  Post-combustion Ferrous Metals Recovery Equipment
44 61 36  Post-combustion Non-ferrous Metals Recovery Equipment

44 62 00  Fluidized Bed Combustion Equipment

44 63 00  Rotary Kiln Incinerators

44 64 00  Gasification Equipment
44 64 13  Counter-current Fixed Bed Gasification Equipment
44 64 23  Co-current Fixed Bed Gasification Equipment
44 64 33  Fluidized Bed Gasification Equipment
44 64 43  Entrained Flow Gasification Equipment
44 64 53  Plasma Arc Gasification Equipment

44 65 00  Pyrolysis Equipment

44 66 00  Hazardous Waste and Medical Waste Incinerators

44 67 00  Heat Recovery Equipment for Waste Thermal Processing

44 68 00  Synthesis Gas Cleanup and Handling Equipment
45 00 00 Industry-Specific Manufacturing Equipment

45 08 00 Commissioning of Industry-Specific Manufacturing Equipment

45 11 00 Oil and Gas Extraction Equipment
45 11 01 Operation and Maintenance of Oil and Gas Extraction Equipment
45 11 06 Schedules for Oil and Gas Extraction Equipment
45 11 10 to 45 12 99 User-Defined Oil and Gas Extraction Equipment

45 13 00 Mining Machinery and Equipment
45 13 01 Operation and Maintenance of Mining Machinery and Equipment
45 13 06 Schedules for Mining Machinery and Equipment
45 13 10 to 45 14 99 User-Defined Mining Machinery and Equipment

45 15 00 Food Manufacturing Equipment
45 15 01 Operation and Maintenance of Food Manufacturing Equipment
45 15 06 Schedules for Food Manufacturing Equipment
45 15 10 to 45 16 99 User-Defined Food Manufacturing Equipment

45 17 00 Beverage and Tobacco Manufacturing Equipment
45 17 01 Operation and Maintenance of Beverage and Tobacco Manufacturing Equipment
45 17 06 Schedules for Beverage and Tobacco Manufacturing Equipment
45 17 10 to 45 18 99 User-Defined Beverage and Tobacco Manufacturing Equipment

45 19 00 Textiles and Apparel Manufacturing Equipment
45 19 01 Operation and Maintenance of Textiles and Apparel Manufacturing Equipment
45 19 06 Schedules for Textiles and Apparel Manufacturing Equipment
45 19 10 to 45 20 99 User-Defined Textiles and Apparel Manufacturing Equipment

45 21 00 Leather and Allied Product Manufacturing Equipment
45 21 01 Operation and Maintenance of Leather and Allied Product Manufacturing Equipment
45 21 06 Schedules for Leather and Allied Product Manufacturing Equipment
45 21 10 to 45 22 99 User-Defined Leather and Allied Product Manufacturing Equipment

45 23 00 Wood Product Manufacturing Equipment
45 23 01 Operation and Maintenance of Wood Product Manufacturing Equipment
45 23 06 Schedules for Wood Product Manufacturing Equipment
45 23 10 to 45 24 99 User-Defined Wood Product Manufacturing Equipment

45 25 00 Paper Manufacturing Equipment
45 25 01 Operation and Maintenance of Paper Manufacturing Equipment
45 25 06 Schedules for Paper Manufacturing Equipment
45 25 10 to 45 26 99 User-Defined Paper Manufacturing Equipment

45 27 00 Printing and Related Manufacturing Equipment
45 27 01 Operation and Maintenance of Printing and Related Manufacturing Equipment
45 27 06 Schedules for Printing and Related Manufacturing Equipment
45 27 10 to 45 28 99 User-Defined Printing and Related Manufacturing Equipment
45 29 00 Petroleum and Coal Products Manufacturing Equipment
   45 29 01 Operation and Maintenance of Petroleum and Coal Products Manufacturing Equipment
   45 29 06 Schedules for Petroleum and Coal Products Manufacturing Equipment
   45 29 10 to 45 30 99 User-Defined Petroleum and Coal Products Manufacturing Equipment

45 31 00 Chemical Manufacturing Equipment
   45 31 01 Operation and Maintenance of Chemical Manufacturing Equipment
   45 31 06 Schedules for Chemical Manufacturing Equipment
   45 31 10 to 45 32 99 User-Defined Chemical Manufacturing Equipment

45 33 00 Plastics and Rubber Manufacturing Equipment
   45 33 01 Operation and Maintenance of Plastics and Rubber Manufacturing Equipment
   45 33 06 Schedules for Plastics and Rubber Manufacturing Equipment
   45 33 10 to 45 34 99 User-Defined Plastics and Rubber Manufacturing Equipment

45 35 00 Nonmetallic Mineral Product Manufacturing Equipment
   45 35 01 Operation and Maintenance of Nonmetallic Mineral Product Manufacturing Equipment
   45 35 06 Schedules for Nonmetallic Mineral Product Manufacturing Equipment
   45 35 10 to 45 36 99 User-Defined Nonmetallic Mineral Product Manufacturing Equipment

45 37 00 Primary Metal Manufacturing Equipment
   45 37 01 Operation and Maintenance of Primary Metal Manufacturing Equipment
   45 37 06 Schedules for Primary Metal Manufacturing Equipment
   45 37 10 to 45 38 99 User-Defined Primary Metal Manufacturing Equipment

45 39 00 Fabricated Metal Product Manufacturing Equipment
   45 39 01 Operation and Maintenance of Fabricated Metal Product Manufacturing Equipment
   45 39 06 Schedules for Fabricated Metal Product Manufacturing Equipment
   45 39 10 to 45 40 99 User-Defined Fabricated Metal Product Manufacturing Equipment

45 41 00 Machinery Manufacturing Equipment
   45 41 01 Operation and Maintenance of Machinery Manufacturing Equipment
   45 41 06 Schedules for Machinery Manufacturing Equipment
   45 41 10 to 45 42 99 User-Defined Machinery Manufacturing Equipment

45 43 00 Computer and Electronic Product Manufacturing Equipment
   45 43 01 Operation and Maintenance of Computer and Electronic Product Manufacturing Equipment
   45 43 06 Schedules for Computer and Electronic Product Manufacturing Equipment
   45 43 10 to 45 44 99 User-Defined Computer and Electronic Product Manufacturing Equipment

45 45 00 Electrical Equipment, Appliance, and Component Manufacturing Equipment
   45 45 01 Operation and Maintenance of Electrical Equipment, Appliance, and Component Manufacturing Equipment
45 45 06  Schedules for Electrical Equipment, Appliance, and Component Manufacturing Equipment
45 45 10 to 45 46 99  User-Defined Electrical Equipment, Appliance, and Component Manufacturing Equipment

45 47 00  Transportation Manufacturing Equipment
45 47 01  Operation and Maintenance of Transportation Manufacturing Equipment
45 47 06  Schedules for Transportation Manufacturing Equipment
45 47 10 to 45 48 99  User-Defined Transportation Manufacturing Equipment

45 49 00  Furniture and Related Product Manufacturing Equipment
45 49 01  Operation and Maintenance of Furniture and Related Product Manufacturing Equipment
45 49 06  Schedules for Furniture and Related Product Manufacturing Equipment
45 49 10 to 45 50 99  User-Defined Furniture and Related Product Manufacturing Equipment

45 51 00  Other Manufacturing Equipment
45 51 01  Operation and Maintenance of Other Manufacturing Equipment
45 51 06  Schedules for Other Manufacturing Equipment
45 51 10 to 45 52 99  User-Defined Other Manufacturing Equipment
46 00 00  Water and Wastewater Equipment
46 01 00  Operation and Maintenance of Water and Wastewater Equipment
  46 01 07  Operation and Maintenance of Packaged Treatment Equipment
  46 01 20  Operation and Maintenance of Preliminary Treatment Equipment
  46 01 30  Operation and Maintenance of Chemical Feed Equipment
  46 01 40  Operation and Maintenance of Clarification and Mixing Equipment
  46 01 50  Operation and Maintenance of Secondary Treatment Equipment
  46 01 60  Operation and Maintenance of Advanced Treatment Equipment
  46 01 70  Operation and Maintenance of Residuals Handling and Treatment

46 05 00  Common Work Results for Water and Wastewater Equipment

46 06 00  Schedules for Water and Wastewater Equipment
  46 06 07  Schedules for Packaged Treatment Equipment
  46 06 20  Schedules for Preliminary Treatment Equipment
  46 06 30  Schedules for Chemical Feed Equipment
  46 06 40  Schedules for Clarification and Mixing Equipment
  46 06 50  Schedules for Secondary Treatment Equipment
  46 06 60  Schedules for Advanced Treatment Equipment
  46 06 70  Schedules for Residuals Handling and Treatment

46 07 00  Packaged Water and Wastewater Treatment Equipment
  46 07 13  Packaged Water Treatment Equipment
  46 07 53  Packaged Wastewater Treatment Equipment

46 08 00  Commissioning of Water and Wastewater Equipment
  46 08 07  Commissioning of Packaged Treatment Equipment
  46 08 20  Commissioning of Preliminary Treatment Equipment
  46 08 30  Commissioning of Chemical Feed Equipment
  46 08 40  Commissioning of Clarification and Mixing Equipment
  46 08 50  Commissioning of Secondary Treatment Equipment
  46 08 60  Commissioning of Advanced Treatment Equipment
  46 08 70  Commissioning of Residuals Handling and Treatment

46 20 00  Water and Wastewater Preliminary Treatment Equipment

46 21 00  Screening Equipment
  46 21 11  Climber-type Bar Screens
  46 21 13  Chain-and-Rake Bar Screens
  46 21 16  Flexible Rake Bar Screens
  46 21 17  Catenary Bar Screens
  46 21 19  Continuous Belt Screens
  46 21 23  Cylindrical Bar Screens
  46 21 26  Step Screens
  46 21 33  Rotary Drum Screens
  46 21 39  Spiral Screens
  46 21 43  Band Screens
  46 21 46  Disc Screens
  46 21 51  Traveling Water Screens
46 21 53  Perforated Plate Screens
46 21 56  Wedge Wire Screens
46 21 57  Element Screens
46 21 71  Trash Raking Equipment
46 21 73  Screenings Washing and Compacting Equipment
46 21 76  Vacuum Screenings Conveying Equipment
46 21 79  Screenings Storage Containers
46 21 83  Septage Receiving Equipment

46 23 00  Grit Removal and Handling Equipment
46 23 13  Chain-and-Bucket Grit Removal Equipment
46 23 16  Chain-and-Flight Grit Removal Equipment
46 23 23  Vortex Grit Removal Equipment
46 23 27  Cyclone Degritters
46 23 33  Aerated Grit Removal Equipment
46 23 43  Inline Baffled Grit Removal Equipment
46 23 53  Traveling Bridge Grit Removal Equipment
46 23 63  Grit Classifying and Washing Equipment
46 23 66  Grit Storage Containers

46 24 00  Grinding and Shredding Equipment
46 24 13  Macerators
46 24 16  Comminutors
46 24 23  Inline Grinders
46 24 33  Open-channel Grinders
46 24 36  Modular Grinding-Screening-Compacting Equipment

46 25 00  Oil and Grease Separation and Removal Equipment
46 25 13  Coalescing Oil-Water Separators
46 25 16  API Oil-Water Separators
46 25 23  Grease Traps
46 25 33  Dissolved Air Flotation Grease and Oil Separation Equipment
46 25 41  Helical Scum Skimming and Removal Equipment
46 25 43  Tipping Trough Scum Skimming and Removal Equipment
46 25 46  Chain and Flight Scum Collection and Removal Equipment
46 25 47  Floating Scum Skimming and Removal Equipment

46 30 00  Water and Wastewater Chemical Feed Equipment

46 31 00  Gas Chemical Feed Equipment
46 31 11  Chlorine Gas Feed Equipment
46 31 13  Sulfur Dioxide Gas Feed Equipment
46 31 16  Ammonia Gas Feed Equipment
46 31 23  Gas Storage, Weighing, and Leak Detection Equipment
46 31 26  Emergency Gas Treatment Systems
46 31 33  Chlorine Dioxide Reactors
46 31 43  Carbon Dioxide Gas Feed Equipment
46 31 53  Ozone Generating and Feed Equipment
46 31 56  Liquid Oxygen Storage and Feed Equipment
46 31 59  Cleaning Requirements for Oxygen Service
46 31 83  Gas Chemical Feed Accessories and Safety Equipment

46 33 00  Liquid Chemical Feed Equipment
46 33 13 Sodium Hypochlorite Generating Equipment
46 33 23 Liquid Chemical Weighing Equipment
46 33 33 Polymer Blending and Feed Equipment
46 33 41 Liquid Chemical Feed System Coordination and Integration
46 33 42 Diaphragm-type Metering Pumps
46 33 44 Peristaltic Metering Pumps
46 33 46 Progressing Cavity Metering Pumps
46 33 48 Lobe Metering Pumps
46 33 53 Drum Pumps
46 33 66 Liquid Chemical Transfer Pumps
46 33 73 Liquid Chemical Diffusers
46 33 83 Liquid Chemical Feed Accessories and Safety Equipment

46 36 00 Dry Chemical Feed Equipment
46 36 11 Dry Chemical Feed System Coordination and Integration
46 36 13 Storage Silos
46 36 23 Dry Chemical Weighing Equipment
46 36 33 Volumetric Feed Equipment
46 36 36 Gravimetric Feed Equipment
46 36 43 Lime Slaking Equipment
46 36 53 Chemical Tablet Feeding Equipment
46 36 83 Dry Chemical Feed Accessories and Safety Equipment

46 40 00 Water and Wastewater Clarification and Mixing Equipment

46 41 00 Mixing Equipment
46 41 11 Rapid Mixers
46 41 13 Inline Blender-type Rapid Mixers
46 41 16 Induction-type Rapid Mixing Equipment
46 41 17 Inline Static Mixers
46 41 21 Jet Mixing Equipment
46 41 23 Submersible Mixers
46 41 26 Floating Mechanical Mixers
46 41 27 Paddle Mixers
46 41 29 Pin Mixers
46 41 31 Vertical Reel Flocculation Equipment
46 41 33 Horizontal Reel Flocculation Equipment
46 41 34 Vertical Turbine Flocculation Equipment
46 41 36 Walking-beam Flocculation Equipment
46 41 38 Horizontal Oscillating Flocculation Equipment
46 41 41 Top-entering Tank Mixers
46 41 43 Side-entry Tank Mixers
46 41 46 Portable Tank Mixers

46 43 00 Clarifier Equipment
46 43 11 Chain-and-Flight Clarifier Equipment
46 43 14 Traveling Bridge Clarifier Equipment
46 43 16 Differential Head Clarifier Equipment
46 43 18 Oscillating Scraper-type Clarifier Equipment
46 43 21 Circular Clarifier Equipment
46 43 53 Solids Contact Clarifier Equipment
46 43 61 Flocculating Clarifier, Pulsating Sludge Blanket Type
<table>
<thead>
<tr>
<th>MasterFormat 2012 Numbers and Titles</th>
<th>April 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>46 43 63 Dissolved Air Flotation Equipment for Water Treatment</td>
<td></td>
</tr>
<tr>
<td>46 43 66 Ballasted High-rate Clarifier Equipment</td>
<td></td>
</tr>
<tr>
<td>46 43 67 High rate Clarification/Thickening Equipment</td>
<td></td>
</tr>
<tr>
<td>46 43 73 Tube Settlers</td>
<td></td>
</tr>
<tr>
<td>46 43 76 Inclined Plate Settlers</td>
<td></td>
</tr>
<tr>
<td><strong>46 46 00</strong> Sediment Removal Equipment</td>
<td></td>
</tr>
<tr>
<td>46 46 13 Tipping Sediment Flushing Tanks</td>
<td></td>
</tr>
<tr>
<td>46 46 16 Flushing Gates</td>
<td></td>
</tr>
<tr>
<td>46 46 23 Water Cannon</td>
<td></td>
</tr>
<tr>
<td>46 46 26 Nozzle Systems</td>
<td></td>
</tr>
<tr>
<td><strong>46 50 00</strong> Water and Wastewater Secondary Treatment Equipment</td>
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<tr>
<td><strong>46 50 00</strong> Water and Wastewater Secondary Treatment Equipment</td>
<td></td>
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<tr>
<td>46 51 00 Air and Gas Diffusion Equipment</td>
<td></td>
</tr>
<tr>
<td>46 51 11 Fixed Mechanical Aerators</td>
<td></td>
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<tr>
<td>46 51 13 Floating Mechanical Aerators</td>
<td></td>
</tr>
<tr>
<td>46 51 16 Submersible Aspirating Aerator Equipment</td>
<td></td>
</tr>
<tr>
<td>46 51 17 Jet Aeration Equipment</td>
<td></td>
</tr>
<tr>
<td>46 51 21 Coarse Bubble Diffusers</td>
<td></td>
</tr>
<tr>
<td>46 51 23 Swing-type Channel Aeration Equipment</td>
<td></td>
</tr>
<tr>
<td>46 51 26 Shear Box Diffusers</td>
<td></td>
</tr>
<tr>
<td>46 51 31 Flexible Membrane Tube Diffusers</td>
<td></td>
</tr>
<tr>
<td>46 51 33 Flexible Membrane Disc Diffusers</td>
<td></td>
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<tr>
<td>46 51 36 Ceramic Disc Fine Bubble Diffusers</td>
<td></td>
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<tr>
<td>46 51 43 Floating Membrane Diffusers</td>
<td></td>
</tr>
<tr>
<td>46 51 46 Membrane Diffusers</td>
<td></td>
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<tr>
<td>46 51 53 Cascading Aerators</td>
<td></td>
</tr>
<tr>
<td>46 51 63 Pure-oxygen Generating Equipment</td>
<td></td>
</tr>
<tr>
<td><strong>46 53 00</strong> Biological Treatment Systems</td>
<td></td>
</tr>
<tr>
<td>46 53 13 Rotating Biological Contactors</td>
<td></td>
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<tr>
<td>46 53 23 Trickling Filter Rotary Distributor Equipment</td>
<td></td>
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<tr>
<td>46 53 24 Trickling Filter Media</td>
<td></td>
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<tr>
<td>46 53 26 Bio-towers</td>
<td></td>
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<tr>
<td>46 53 33 Moving-bed Biological Reactors</td>
<td></td>
</tr>
<tr>
<td>46 53 36 Integrated Fixed-film Activated Sludge Equipment</td>
<td></td>
</tr>
<tr>
<td>46 53 41 Intermittent Sand Filters for Wastewater Treatment</td>
<td></td>
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<tr>
<td>46 53 43 Deep-bed Denitrification Filters</td>
<td></td>
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<tr>
<td>46 53 46 Biologically Activated Filters</td>
<td></td>
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<tr>
<td>46 53 49 Membrane Biological Reactors</td>
<td></td>
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<td>46 53 53 Sequencing Batch Reactors</td>
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<tr>
<td>46 53 61 Oxidation Ditch Equipment</td>
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<tr>
<td>46 53 63 Vertical Loop Reactors</td>
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<tr>
<td><strong>46 60 00</strong> Water and Wastewater Advanced Treatment Equipment</td>
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<td><strong>46 60 00</strong> Water and Wastewater Advanced Treatment Equipment</td>
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<tr>
<td>46 61 00 Filtration Equipment</td>
<td></td>
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<tr>
<td>46 61 13 Filter Media</td>
<td></td>
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<tr>
<td>46 61 16 Filter Surface Wash Agitators</td>
<td></td>
</tr>
<tr>
<td>46 61 17 Filter Air Scour Equipment</td>
<td></td>
</tr>
</tbody>
</table>
46 61 19 Wash Water Troughs
46 61 21 Pressure Filters
46 61 23 Gravity Filters
46 61 26 High-rate Sand Filters
46 61 29 Traveling Bridge Filters
46 61 33 Microfiltration and Ultrafiltration Membrane Equipment
46 61 41 Disc Cloth Filters
46 61 43 Rotary Drum Cloth Filters
46 61 46 Automatic Backwash Cloth Filter Equipment
46 61 53 Cartridge Filters
46 61 63 Bag Filters
46 61 73 Automatic Straining Equipment

46 63 00 Demineralization Equipment
46 63 11 Ion-exchange Vessel Media
46 63 13 Mixed Bed Ion-exchange Vessel Systems
46 63 16 Packed Bed Ion-exchange Vessel Systems
46 63 17 Electrodialysis Reversal Equipment
46 63 23 Reverse-Osmosis and Nanofiltration Membrane Equipment
46 63 31 Multiple-effect Distillation Equipment
46 63 33 Desalination Mechanical Vapor Compression Equipment
46 63 34 Desalination Thermal Vapor Compression Equipment
46 63 36 Desalination Multi-stage Flash Equipment
46 63 41 Desalination Falling Film Evaporators
46 63 43 Desalination Rising Film Evaporators
46 63 53 Desalination Forced-circulation Crystallizing Equipment
46 63 63 Desalination Spray Dry Evaporation Equipment
46 63 73 Demineralization Energy Recovery Equipment

46 66 00 Ultraviolet Equipment
46 66 13 Closed-vessel Low-pressure/Low-intensity Ultraviolet Treatment Equipment
46 66 16 Closed-vessel Low-pressure/High-intensity Ultraviolet Treatment Equipment
46 66 23 Closed-vessel Medium-pressure Ultraviolet Treatment Equipment
46 66 53 Open-channel Low-pressure/Low-intensity Ultraviolet Treatment Equipment
46 66 56 Open-channel Low-pressure/High-intensity Ultraviolet Treatment Equipment
46 66 63 Open-channel Medium-pressure Ultraviolet Treatment Equipment

46 70 00 Water and Wastewater Residuals Handling and Treatment

46 71 00 Residuals Thickening Equipment
46 71 13 Circular Gravity Thickeners
46 71 16 Gravity Belt Thickeners
46 71 23 Dissolved Air Flotation Thickening Equipment
46 71 33 Rotary Drum Thickening Equipment
46 71 36 Centrifuge Thickening Equipment
46 71 43 Disc Thickeners
46 71 46 Thickening Screw Press
46 71 53 Scum Concentrator Equipment

46 73 00 Residuals Stabilization
46 73 11 Radial Beam Fixed Digester Covers
46 73 12 Dual Deck Truss-type Fixed Digester Covers
46 73 14 Radial Beam Floating Digester Covers
46 73 16 Dual Deck Truss-type Floating Digester Covers
46 73 17 Radial Beam Floating Gas-holding Digester Covers
46 73 18 Dual Deck Truss-type Floating Gas-holding Digester Covers
46 73 19 Digester Appurtenances
46 73 21 Aerobic Digester Aeration Equipment
46 73 24 Autothermal Thermophilic Aerobic Digestion Equipment
46 73 26 Egg-shaped Digesters
46 73 31 External Draft Tube Digester Mixing System
46 73 32 Internal Draft Tube Digester Mixing System
46 73 33 Confined Gas Mixing System
46 73 34 Unconfined Gas Mixing System
46 73 41 Digester Heating Equipment
46 73 63 Residuals Pasteurization Equipment

46 76 00 Residuals Dewatering Equipment
46 76 13 Vacuum Filters
46 76 21 Belt Filter Presses
46 76 23 Plate-and-Frame Filter Presses
46 76 26 Rotary Presses
46 76 27 Screw Presses
46 76 33 Dewatering Centrifuges
46 76 53 Belt Dryers
46 76 60 Direct-heat Residuals Drying Equipment
46 76 70 Indirect-heat Residuals Drying Equipment

46 78 00 Thermal Treatment of Residuals
46 78 13 Multiple-hearth Sludge Incinerators
46 78 23 Fluidized-bed Sludge Incinerators
46 78 33 Ash Handling Equipment
46 78 41 Recuperative Air Preheating Equipment
46 78 46 Regenerative Thermal Oxidizers
46 78 47 Waste Heat Recovery Boilers
46 78 49 Waste Heat Recovery Heat Exchangers
46 78 73 Thermal Oxidation Equipment
48 00 00  Electrical Power Generation

48 01 00  Operation and Maintenance for Electrical Power Generation

48 01 10  Operation and Maintenance of Electrical Power Generation Equipment
48 01 70  Operation and Maintenance of Electrical Power Generation Testing

48 05 00  Common Work Results for Electrical Power Generation

48 06 00  Schedules for Electrical Power Generation

48 06 10  Schedules for Electrical Power Generation Equipment
48 06 70  Schedules for Electrical Power Generation Testing

48 08 00  Commissioning of Electrical Power Generation

48 09 00  Instrumentation and Control for Electrical Power Generation

48 10 00  Electrical Power Generation Equipment

48 11 00  Fossil Fuel Plant Electrical Power Generation Equipment

48 11 13  Fossil Fuel Electrical Power Plant Boilers
48 11 16  Fossil Fuel Electrical Power Plant Condensers
48 11 19  Fossil Fuel Electrical Power Plant Steam Turbines
48 11 23  Fossil Fuel Electrical Power Plant Gas Turbines
48 11 26  Fossil Fuel Electrical Power Plant Generators

48 12 00  Nuclear Fuel Plant Electrical Power Generation Equipment

48 12 13  Nuclear Fuel Reactors
48 12 13.13 Nuclear Fuel Fission Reactors
48 12 13.16 Nuclear Fuel Fusion Reactors
48 12 23  Nuclear Fuel Electrical Power Plant Steam Generators
48 12 26  Nuclear Fuel Electrical Power Plant Condensers
48 12 29  Nuclear Fuel Electrical Power Plant Turbines
48 12 33  Nuclear Fuel Electrical Power Generators

48 13 00  Hydroelectric Plant Electrical Power Generation Equipment

48 13 13  Hydroelectric Power Plant Water Turbines
48 13 16  Hydroelectric Power Plant Electrical Power Generators

48 14 00  Solar Energy Electrical Power Generation Equipment

48 14 13  Solar Energy Collectors
48 14 13.13 Amorphous Solar Energy Collectors
48 14 13.16 Plate Cell Solar Energy Collectors
48 14 13.19 Vacuum Tube Solar Energy Collectors

48 15 00  Wind Energy Electrical Power Generation Equipment

48 15 13  Wind Turbines
48 15 16  Wind Energy Electrical Power Generators

48 16 00  Geothermal Energy Electrical Power Generation Equipment

48 16 13  Geothermal Energy Heat Pumps
48 16 16  Geothermal Energy Condensers
48 16 19 Geothermal Energy Steam Turbines
48 16 23 Geothermal Energy Electrical Power Generators

48 17 00 Electrochemical Energy Electrical Power Generation Equipment
48 17 13 Electrical Power Generation Batteries

48 18 00 Fuel Cell Electrical Power Generation Equipment
48 18 13 Electrical Power Generation Fuel Cells
48 18 16 Hydrogen Control Equipment

48 19 00 Electrical Power Control Equipment
48 19 13 Electrical Power Generation Battery Charging Equipment
48 19 16 Electrical Power Generation Inverters
48 19 19 Electrical Power Generation Solar Tracking Equipment
48 19 23 Electrical Power Generation Transformers
48 19 26 Electrical Power Generation Voltage Regulators

48 70 00 Electrical Power Generation Testing
48 71 00 Electrical Power Generation Test Equipment
48 71 13 Electrical Power Generation Corona Test Equipment
48 71 16 Electrical Power Generation Current Test Equipment
48 71 19 Electrical Power Generation Power Test Equipment
48 71 23 Electrical Power Generation Resistance Test Equipment
48 71 26 Electrical Power Generation Voltage Test Equipment