1.0 Codes and Regulatory Agencies

Codes and Regulatory Agencies (formerly SID-F Codes and Regulatory Agencies) is an annotated list of all applicable building codes and standards for the University of Michigan. Issued March 13, 2024.

If you have trouble accessing a document, please contact the DG Editor for assistance.

2.0 Project Procedures

Contains Project related procedures, related documents and templates to be utilized by the design professional.

If you have trouble accessing a document, please contact the DG Editor for assistance.

Guideline	Other Formats	Last Update	Previous Version	Former Document
2.1 OPR and BOD (Owners Project Requirements and Basis of Design)		November 2022	July 2021	SID-B Owner's Project Requirements and Basis of Design Documents
2.1.1 OPR-BOD-Report-Format	Word Version	November 2022		
2.1.2 Room-Data-Sheet-Format	Excel Version			
2.2 Design Deliverables		May 2026	April 2025	
2.2.1 Pre-Design Deliverables		September 2023	February 2021	
2.3 U of M Owners Review		December 2014	May 2014	SID-L Owner's Review
2.4 Document Standards And Procedures For Project Deliverables		May 2026	June 2023	SID-H Drawing and Construction Documents Standards

2.4.1 UMHHC Drawing and Construction Document Standards				
2.4.2 Document Standards & Methods for Electronic Document Submissions		January 2022		
2.5 Project Estimates		April 2024	September 2016	SID-P Project Estimates
2.5.1 UMHHC Projects Estimates				
2.6 Insurance Underwriter		January 2015		
2.7 Effective Date Compiled Design Guidelines by Month and Year				
2.8 Project Manual		November 2016; Revised 8/2021		

2.2 Design Deliverables

As part of the deliverables for formal UM review at each of the major phases of design listed below, the Design Professional shall submit this "Design Deliverables" document to the University's Design Coordinator. On the "Design Deliverables" document, the Design Professional shall indicate the status of each required item (a check mark is interpreted to mean that an item has been included in the deliverables). On or attached to the "Design Deliverables" document, the Design Professional shall address any item that is NOT included in the review package.

Note that design deliverables for the Design Development phase are to include all items listed in the Design Development column of the "Design Deliverables" table AND, except as specifically stated to the contrary in the table, all items listed in the Schematic Design column of the table (which are to have been further developed during Design Development).

Note that design deliverables for the Construction Document phase are to include all items listed in the Construction Document column of the "Design Deliverables" table AND, except as specifically stated to the contrary in the table, all items listed in the Schematic Design column and all items listed in the Design Development column of the table (which are to have been further developed during the Construction Document phase).

3.0 Sustainability

Provides criteria for sustainable design and LEED requirements.

If you have trouble accessing a document, please contact the DG Editor for assistance.

Guideline	Other Formats	Last Update	Previous Version	Former Document
3.1 Sustainable Design and LEED Requirements		January 2025	February 2023	SID-K Sustainable Design and LEED® Requirements
3.2 Carbon Reduction and Energy and Water Conservation		May 2025	June 2024	SID-D Energy and Water Conservation
3.2.1 Energy and Water Conservation Report Format – Projects $2M to $10 M Construction Cost	Word Version	October 2015	July 2013	
3.2.2 Energy and Water Conservation Report Format – Projects Over $10M	Word Version	November 2017	October 2015	
3.2.3 Energy Impact Statement	Word Version	November 2022	September 2020	
3.2.4 LCCA and Carbon Worksheet	Excel Version	October 2023	November 2022	

Guideline	Other Formats	Last Update	Previous Version	Former Document
3.3 Sustainable Products Portfolio		Retired	May 2014	SID-S Sustainable Products Portfolio
3.4 Recycling Materials		March 2014		SID-O Recycling Materials
3.5 Waste, Recycling, and Compost		March 2019		
3.6 Carbon Maximum Emissions Targets		November 2022		

4.0 Special Instructions to Designers

If you have trouble accessing a document, please contact the DG Editor for assistance.

Guideline	Last Update	Previous Version	Replaces Document
4.1 Compatibility with Existing Conditions	May 2014	December 1991	SID-C Compatibility with Existing Conditions
4.2 Building Envelope	May 2025	August 2014	SID-A Building Envelope
4.3 Building Commissioning	July 2016	April 2016	SID-G Commissioning
4.3.1 Design Phase Commissioning	November 2016	October 2012	
4.3.2 MEP Design Management	November 2016	October 2012	
4.3.3 Full Construction-Phase Commissioning	September 2018	July 2016	
4.3.4 Reduced Scope Construction Phase	June 2018	July 2016	
4.3.5 Commissioning Plan Procedure	June 2018	July 2016	
4.3.6 General Commissioning Procedures	September 2018	June 2018	
4.4 Site/Civil			

Guideline	Last Update	Previous Version	Replaces Document
4.4.1 Landscape	December 2018	January 2017	SID-T Landscape Materials
4.4.2 Site Furnishing Standards Manual	July 2018	January 2011	
4.4.3 Stormwater Best Management Practices Manual	Removed January 2017	December 2010	
4.4.4 Banners			
4.4.5 Site Signage	February 2016		
4.5 Regulated and Hazardous Materials	July 2008	July 2006	SID-I Regulated and Hazardous Materials
4.6 Utilities for University Buildings	February 2026	May 2020	SID-J University Provided Utilities
4.7 Building Access Control	January 2021	March 2018	SID-Q Building Access Control
4.8 Fall Protection on Rooftops	March 2025	June 2010	SID-R Fall Protection on Rooftops
4.9 Bird Collision Deterrence	July 2023		
4.10 Telecommunication Cabling System	November 2023		
4.11 Radon Mitigation	May 2025		

5.0 Special Building Areas

Contains design criteria and design approach specific to certain building or room types.

If you have trouble accessing a document, please contact the DG Editor for assistance.

Guideline	Last Update	Previous Version	Replaces Document
5.1 Office Space Guidelines (maintained by Office of Provost) The guidelines provide space-per-person recommendations by position type.			
5.1.1 MM Space Guideline	January 2015		
5.2 Animal Facilities	July 2025	September 2008	SBA-A Animal Facilities
5.3 Loading Docks	August 2014	May 2003	SBA-B Loading Docks
5.4 Telecommunication Rooms	November 2016	November 2014	SBA-C Telecommunication Rooms
5.4.1 Requirements for Telecommunications Rooms in MM Facilities			SBA-C-H: Requirements for Telecommunications Rooms in UMHHC Facilities
5.5 Custodial Support Space and Infrastructure	July 2021	January 2018	SBA-D Custodial Closets
5.5.1 MM Custodial Closet at UMHHC Facilities			SBA-D-H: Requirements for Custodial Closets in UMHHC Facilities

Guideline	Last Update	Previous Version	Replaces Document
5.6 Parking Structures	December 2020 (posted March 2021)	October 2009	SBA-E Parking Structures
5.7 Unit Sub Station Rooms	January 2016	January 2016	SBA-F Unit Sub-Station Rooms
5.8 Personal Rooms	July 2020	April 2016	SBA-G Personal Rooms
5.8.1 MM Lactation Rooms			
5.9 Tunnels	Posted November 2021, Updated August 2021	November 2015	SBA-H Tunnels
5.10 Gender Inclusive Rooms	May 2020	November 2017	SBA-I Gender Inclusive Toilet/Locker Room
5.10.1 MM Gender Inclusive Restrooms, Locker Rooms and Facilities			
5.11 Fire Command Center	September 2016	June 2015	SBA-J Fire Command Center
5.12 Lab Design and Safety	December 2014		
5.13 MM Healthcare Procedure Room Infection Control Types and Requirements			SBA-K-H Healthcare Procedure Room Infection Control Types And Requirements
5.14 MM Patient Care and Support Spaces Room Type Requirements			SBA-L-H Patient Care And Support Spaces Room Type Requirements

Guideline	Last Update	Previous Version	Replaces Document
5.15 MM Patient and Staff Protection: Falls, Bariatrics, Low Vision, Ergonomics			SBA-M-H: UMHHC Patient and Staff Protection: Falls, Bariatrics, Low Vision, Ergonomics
5.16 MM Requirements for Critical Pressure Sensitive Rooms			
5.17 MM Requirements for Pharmaceutical Drug Compounding Areas			
5.18 Conference Rooms	June 2022		
5.19 MM Behavioral Health Design Guideline	June 2023		
5.20 UMH HEALTHCARE INSTRUMENT PROCESSING REQUIREMENTS	January 2025		

6.0 Technical Requirements

Technical Sections (CSI Divisions 1 -14, 21-23, 26-28, 31-33) contain system specific design criteria and design approach.

For University of Michigan Hospitals and Health Centers (UMHHC) funded projects, click here for a list of Technical Requirements specific to work at UMHHC.

If you have trouble accessing a document, please contact the DG Editor for assistance.

Guideline
6.1 Architectural
6.2 Mechanical
6.3 Electrical
6.4 Site/Civil

1 General Requirements

Guideline	Last Update	Previous Version
013100 Coordination	July 2014	
013639 Tree Preservation	May 2020	
017329 Roofing Materials Cutting and Patching	July 2020	
017823 Operations, Maintenance and Training	February 2008	

3 Concrete

Guideline	Last Update	Previous Version
033000 Concrete	July 2014	

4 Masonry

Guideline	Last Update	Previous Version
042000 Unit Masonry	March 2014	

5 Metals

Guideline	Last Update	Previous Version
051000 Metals	May 2014	

6 Wood And Plastics

Guideline	Last Update	Previous Version

7 Thermal And Moisture Protection

Guideline	Last Update	Previous Version
072700 Air Barriers	Replaced by Building Envelope	
075000 Roofing Systems and Accessories	May 2026	June 2020
078413 Firestopping	July 2014	
079200 Joint Sealant	June 2014	

8 Doors And Windows

Guideline	Last Update	Previous Version
081113 Hollow Metal Doors and Frames	October 2014	

Guideline	Last Update	Previous Version
081416 Flush Wood Doors	July 2014	
08370 Frames, Power Operated Doors	Removed October 2014 and incorporated into 081113 Hollow Metal Doors and Frames and 087100 Finish Hardware	
084113 Aluminum Framed Entrance and Storefront Systems	January 2012	
084413 Glazed Aluminum Curtain Wall	November 2011	
085113 Aluminum Windows	August 2025	January 2012
087100 Finish Hardware	November 2023	
088000 Glazing	May 2026	January 2023

9 Finishes

Guideline	Last Update	Previous Version
092116 Gypsum Board Assemblies	January 2014	
093000 Ceramic Tile and Waterproofing	February 2024	
095100 Acoustic Ceilings	November 2017	
096229 Cork Flooring	May 2014	
096500 Resilient Flooring	May 2015	

Guideline	Last Update	Previous Version
099100 Low-Emitting Paint And Coating Products	Removed July 2020. This information is now covered sufficiently by LEED and industry standard.	

10 Specialties

Guideline	Last Update	Previous Version
101400 Signage	February 2026	April 2025
102113 Toilet Compartments	May 2022	
102800 Toilet Accessories	June 2025	January 2025
104400 Fire Extinguishers	September 2014	

11 Equipment

Guideline	Last Update	Previous Version
115313 Laboratory Fume Hoods, Bsc's, Specialty Hoods And Acid Flammable Cabinets	July 2011	

12 Furnishings

Guideline	Last Update	Previous Version
122000 Window Treatment	March 2014	
123553 Laboratory Casework	May 2015	

13 Special Construction

Guideline	Last Update	Previous Version
132100 Controlled Environment Rooms	September 2014	

14 Conveying Systems

Guideline	Last Update	Previous Version
140000 Conveying Systems – General Requirements	December 2023	
144200 Wheelchair Lifts	Request from Designer	

21 Fire Protection

Guideline	Last Update	Previous Version	Replaces
210000 Fire Protection	March 2015	May 2003	15300 Fire Protection

22 Plumbing

Guideline	Last Update	Previous Version	Replaces
220000 Plumbing Design	April 2014	July 1992	15450 Domestic Hot Water 15455 Water Booster Pumps
220010 Plumbing Specialties	April 2026	December 2021	15430 Plumbing Specialties
220020 High Purity Water Systems	December 2005	July 1990	15460 High Purity Water Systems
220513 Motors	September 2012	April 2009	15170 Motors
220514 Variable Frequency Drives	January 2025	November 2008	15960 Variable Frequency Drives
220519 Thermometers and Gauges	April 2014	May 2003	15130 Thermometers and Gauges
220523 Valves	September 2021	April 2014	15100 Valves

Guideline	Last Update	Previous Version	Replaces
220553 Mechanical Identification and Painting	January 2025	April 1995	15190 Mechanical Identification and Painting
220719 Mechanical Insulation	Posted June 2020, Revised March 2019	April 1995	15250 Mechanical Insulation
221113 Basic Piping Materials and Methods	October 2025	August 2025	15060 Basic Piping Materials and Methods 15140 Pipe Hangers

23 HVAC

Guideline	Last Update	Previous Version	Replaces
230000 Basic Mechanical Requirements	June 2013	January 2001	15010 Basic Mechanical Requirements
230010 HVAC Design	June 2013		15070 HVAC Design
230011 Fans and Accessories	September 2012	July 1990	15870 Fans and Accessories
230012 Air Filters	September 2022	May 2007	15885 Air Filters
230013 Air Handling Units	September 2022	April 2014	15855 Air Handling Units15850 Air Blending Devices
230014 Packaged Roof Top Air Conditioning Units	August 2024	May 2003	15780 Packaged Roof Top Air Conditioning Units
230015 Fan Coil Units and Blower Coil Units	April 2014	May 2003	15830 Fan Coil Units and Blower Coils Units

Guideline	Last Update	Previous Version	Replaces
230016 Computer Room Air Conditioning	April 2014	March 2004	15785 Computer Room Units
230017 Window Air Conditioning Units	July 1990		15784 Window Air Conditioning Units
230020 Duct System Design	September 2008	February 2007	15890 Duct System Design
230021 Terminal Air Flow Units	March 2009		15896 Terminal Air Flow Units
230022 Grills, Registers, Diffusers and Air Balancing Accessories	April 1991		15880 Grills, Registers, Diffusers and Air Balancing Accessories
230030 Laboratory Ventilation Design	June 2025	January 2025	15910 Laboratory Ventilation
230040 Hydronic Systems and Specialties	May 2003	February 1999	15515 Hydronic Systems and Specialties
230041 Pumps	January 2025	October 2005	15160 Pumps
230050 Chilled Water Systems	January 2025	November 2018	15680 Chilled Water Systems
230051 Water Chillers	Retired November 2018	October 2005	15681 Water Chillers
230052 Cooling Towers	Retired November 2018	May 2003	15710 Cooling Towers
230060 Mechanical Sound & Vibration Control	March 2004	July 1992	15240 Mechanical Sound & Vibration Control

Guideline	Last Update	Previous Version	Replaces
230593 Testing, Adjusting and Balancing	September 2008		15990 Testing, Adjusting and Balancing
230900 Mechanical Systems Controls	November 2020	August 2015	15975 Mechanical Systems Controls
230930 Refrigerant Monitoring System	Retired November 2018	August 2015	
232216 Steam Specialties	April 1991		15525 Steam Specialties
235000 Hot Water Heating Systems	July 2017		

26 Electrical

Guideline	Last Update	Previous Version	Replaces
260500 Common Work Results for Electrical	February 2016	October 2013	16010 Basic Electrical Requirements
260513 Medium, Low and Control Voltage Cables	March 2014	September 2000	16120 Wires and Cables
260526 Grounding and Bonding for Electrical	March 2014	March 2005	16450 Grounding
260533 Electrical Materials and Methods	March 2014	October 2002	16050 Basic Electrical Materials and Methods
260543 Underground Services for Electrical Systems	February 2019	October 2014	16110 Underground Electrical Service
260800 Electrical Acceptance Tests	March 2014	May 2009	16950 Electrical Acceptance Tests
260933 Lighting Dimming Controls	March 2014		16550 Lighting Controls Systems
261000 Medium Voltage Electrical Distribution	April 2019	December 2015	16305 High Voltage Distribution
261010 Electrical Power Systems	March 2014	September 2000	16300 Electrical Power Systems

Guideline	Last Update	Previous Version	Replaces
261100 Unit Substations	February 2023	July 2018	16310 Unit Substations
262000 Low Voltage Electrical Distribution	March 2014		16400 Service and Distribution
262726 Wiring Devices	March 2014		16140 Wiring Devices
262900 Motor Controls	March 2014		16480 Motor Controls
262923 Variable Frequency Drives	March 2014	July 1994	16156 Variable Speed Drives
262940 Heating Cables and Mats	March 2014		16850 Heating Cables and Mats
263000 Engine-Generator System	March 2016	March 2014	16231 Engine-Generator System
263100 Photovoltaic-Energy Equipment	February 2026		
264100 Lightning Protection	March 2014	April 2006	16670 Lightning Protection System
265100 Interior Lighting	June 2018	September 2017	16511 Interior Lighting
265600 Exterior Lighting	February 2015	May 2008	16521 Outdoor Lighting

27 Communications

Guideline	Last Update	Previous Version	Replaces
272000 Voice and Data Communications	August 2024	March 2014	16740 Telecommunications System
273523 Emergency Responder Radio Coverage	February 2020	November 2014	16760 Special Communications Systems
273524 CPSR Cellular Phone Signal Reinforcement	June 2022		
275313 Clock Systems	March 2014	September 2000	16730 Clock System

28 Electronic Safety And Security

Guideline	Last Update	Previous Version	Replaces
281600 Security Systems	March 2014	July 1990	16725 Security System
283100 Fire Detection and Alarm	October 2017	February 2016	16720 Fire Alarm System

31 Earthwork

Guideline	Last Update	Previous Version	Replaces
310000 Sitework	January 2017	November 2010	020000 Sitework
312500 Soil Erosion and Sedimentation Control	January 2017	November 2010	02215 Soil Erosion and Sedimentation Control

32 Exterior Improvements

Guideline	Last Update	Previous Version	Replaces
321000 Walks, Roads and Parking Paving	January 2017	November 2010	02510 Walks, Roads and Parking Paving
321723 Pavement Markings	Posted November 2021, updated August 2021		
328400 Irrigation	December 2018	November 2010	02810 Automatic Lawn Irrigation

33 Utilities

Guideline	Last Update	Previous Version	Replaces
331000 Water Supply Systems	April 1995		02665 Water Supply Systems
334443 Vortex-Type Hydrodynamic Separators	September 2020		

7.0 Master Specifications

This section of the U-M Design Guidelines Website contains guide Master Specifications for the design and construction of facilities at the University of Michigan. The U-M Master Specifications were developed by Architecture and Engineering, for projects designed by our in-house design staff. They are maintained by roughly the same group that maintains the Design Guidelines Technical Sections. At this time we allow A/Es to use their own master specification, but strongly encourage them to use our Master Specification as a guide. Certain Design Guideline Technical Sections require that a related U-M Master Specification section be used as the basis for the A/Es project specific specification.

In all cases when U-M Master Specifications are used they must be edited as required to be made project specific. The Master Specifications include extensive hidden notes to the designer, which should be deleted prior to issuing for bid. The Master Specification is divided by CSI Division. Most sections are available in both Acrobat (pdf) and Word (doc) format.

If you have trouble accessing a document, please contact the DG Editor for assistance.

Guideline
7.1 Architectural
7.2 Mechanical
7.3 Electrical
7.4 Site/Civil

7.1 Architectural

Master Specifications are provided as Microsoft Word documents which open in Microsoft Office Live. Once opened in Office Live, they can be downloaded or printed to PDF via the document icon menu in the lower right corner of the browser window.

Division01 General Requirements

Master Specification	Last Revision
Division 01 General Requirements 011000 Summary	July 2026
011400 Work Restrictions	
012100 Allowances	
012200 Unit Prices	
012300 Alternates	
013100 Project Management And Coordination	
013200 Construction Progress Documentation	
013220 – Photographic Documentation	July 2022
013300 Submittal Procedures	
013500 Special Procedures for Fire Marshal Review and Inspection	
014200 References	

Master Specification	Last Revision
015000 Temporary Facilities And Controls	
015639 Temporary Tree and Plant Protection	
015719 Construction Air Quality	
016000 Product Requirements	
017300 Execution	
017329 Cutting And Patching	
017700 Closeout Procedures	
017823 Operation And Maintenance Manuals	
019100 Project Commissioning	

Division02 Existing Conditions

Master Specification	Last Revision
024119 Selective Demolition	August 2017
028110 Regulated Construction Waste Remediation	August 2019
028213 Asbestos Remediation	July 2026
028214 Asbestos Remediation – Floor Tile and Mastic	July 2026
028215 Asbestos Remediation – Roofing Material	July 2026
028300 Lead Remediation	August 2017

Master Specification	Last Revision
028333 Lead Remediation – Renovation, Repair and Painting in Child-Occupied Facilities and Target Housing	August 2017
028400 PCB Remediation	August 2017

Division03 Concrete

Master Specification	Last Revision
033053 Miscellaneous Cast-In-Place Concrete	November 2023
035416 Hydraulic Cement Underlayment	July 2015
037300 Tunnels Concrete Restoration	November 2023

Division04 Masonry

Master Specification	Last Revision
042000 Unit Masonry – Removed June 3, 2020, no longer internally maintained.	December 2012
042010 Unit Masonry Assemblies (Limited Applications)	September 2025

Division05 Metals

Master Specification	Last Revision
051200 Structural Steel Framing – Removed June 3, 2020, no longer internally maintained.	December 2012
053100 Steel Decking	December 2012

Master Specification	Last Revision
055000 Metal Fabrications	December 2012
055800 Formed-Metal Fabrications – Removed June 3, 2020, no longer internally maintained.	December 2012

Division06 Woods, Plastics And Composites

Master Specification	Last Revision
061000 Rough Carpentry	December 2012
064023 Interior Architectural Woodwork	December 2012

Division07 Thermal And Moisture Protections

Master Specification	Last Revision
071025 Utility Tunnel Waterproofing	January 2022
075316 Chlorosulfonate-Polyethylene (CSPE) Roofing	December 2012
075323 Ethylene-Propylene-Diene-Monomer (EPDM) Roofing	November 2022
078413 Penetration Firestopping	December 2012
079200 Joint Sealants	December 2012

Division08 Openings

Master Specification	Last Revision
081113 Hollow Metal Doors and Frames	April 2022
081416 Flush Wood Doors	December 2012
083113 Access Doors and Frames	May 2014
083313 Coiling Counter Doors – Removed June 3, 2020, no longer internally maintained.	December 2012
084113 Aluminum-Framed Entrances and Storefronts	May 2013
084413 Glazed Aluminum Curtain Walls – Removed June 3, 2020, no longer internally maintained.	March 2013
085113 Aluminum Windows – Removed June 3, 2020, no longer internally maintained.	December 2012
087100 Door Hardware	November 2017
088000 Glazing (exterior) – Removed June 3, 2020, no longer internally maintained.	December 2012
088010 Glazing (Interior Applications)	December 2012
089000 Louvers and Vents	December 2012

Division09 Finishes

Master Specification	Last Revision
092116 Gypsum Board Assemblies	September 2025

Master Specification	Last Revision
092300 Gypsum Plastering – Removed June 3, 2020, no longer internally maintained.	December 2012
093000 Tiling	December 2012
093033 Stone Tiling – Removed June 3, 2020, no longer internally maintained.	December 2012
095100 Acoustical Ceilings	September 2016
096466 Wood Athletic Flooring – Removed June 3, 2020, no longer internally maintained.	September 2016
096500 Resilient Flooring	September 2016
096723 Resinous Flooring – Removed June 3, 2020, no longer internally maintained.	September 2016
096813 Tile Carpeting	September 2016
096816 Sheet Carpeting	September 2016
098433 Sound Absorbing Wall Units – Removed June 3, 2020, no longer internally maintained.	September 2016
099100 Painting	September 2025
099110 Electrostatically Applied Coating – Removed June 3, 2020, no longer internally maintained.	December 2012
099310 Wood Floor Finish – Removed June 3, 2020, no longer internally maintained.	September 2016

Division10 Specialties

Master Specification	Last Revision
101100 Visual Display Units	September 2016

Master Specification	Last Revision
101400 Signage – Removed June 3, 2020, no longer internally maintained.	December 2012
102113 Toilet Compartments	September 2016
102213 Wire Mesh Partitions – Removed June 3, 2020, no longer internally maintained.	December 2012
102239 Folding Panel Partitions – Removed June 3, 2020, no longer internally maintained.	September 2016
102800 Toilet and Bath Accessories	June 2025
104400 Fire Protection Specialties	June 2015
105113 Metal Lockers – Removed June 3, 2020, no longer internally maintained.	December 2012

Division11 Equipment

Master Specification	Last Revision
115213 Projection Screens – Removed June 3, 2020, no longer internally maintained.	December 2012
115300 Laboratory Equipment – Removed June 3, 2020, no longer internally maintained.	December 2012
115313 Laboratory Fume Hoods	December 2013
115314 Fume Hood Refurbishment	December 2012

Division12 Furnishings

Master Specification	Last Revision
122000 Window Treatment	May 2013
122200 Curtains and Drapes	December 2012
123553 Laboratory Casework	May 2013
124600 Furnishing Accessories – Removed June 3, 2020, no longer internally maintained.	December 2012
124813 Entrance Floor Mats and Frames – Removed June 3, 2020, no longer internally maintained.	December 2012

Division13 Special Construction

Master Specification	Last Revision
132100 Controlled Environment Rooms	May 2013

Division14 Conveying Equipment

Master Specification	Last Revision
142100 Electric Traction Elevator	December 2023
142216 Wheelchair Lifts	December 2023
142400 Hydraulic Elevators	December 2023

Division 21 Fire Suppression

PDF Version	Word Version	Last Revision	Replaces Section
211313 Wet and Dry Pipe Sprinkler Systems	Word Document	August 2018	15300
213113 Fire Pumps	Word Document	December 2012	15320

Division 22 Plumbing

PDF Version	Word Version	Last Revision	Replaces Section
220500 Common Work Results for Mechanical	Word Document	August 2017	15010
220513 Motors	Word Document	October 2016	15170
220514 Variable Frequency Drives	Word Document	January 2021	15960
220514A Variable Frequency Drives(Constant Torque)	Word Document	June 2025	
220516 Pipe Expansion Joints	Word Document	October 2022	15125

PDF Version	Word Version	Last Revision	Replaces Section
220519 Thermometers, Pressure Gauges & Accessories	Word Document	January 2021	15130
220523 Valves	Word Document	October 2026	15100
220533 Heat Tracing for Piping	Word Document	December 2020	15128
220548 Vibration Control	Word Document	January 2019	15240
220553 Mechanical Identification	Word Document	April 2024	15190
220719 Mechanical Systems Insulation	Word Document	November 2022	15250
221113 Piping Materials & Methods	Word Document	October 2025	15060
221119 Domestic Water Piping Specialties	Word Document	April 2018	15411
221123 Domestic Water Booster Pumps	Word Document	January 2014	15412
221319 Drainage Specialties	Word Document	November 2021	15420
221333 Packaged Submersible Storm and Sanitary Pumps	Word Document	December 2012	
221500 Compressed Air Accessories	Word Document	April 2018	15481
223116 Water Softener	Word Document	April 2024	15455

PDF Version	Word Version	Last Revision	Replaces Section
224200 Plumbing Fixtures	Word Document	March 2023	15440
226313 Medical Gas Certification (Hospital Projects)	Word Document	December 2016	15482

Division 23 HVAC

PDF Version	Word Version	Last Revision	Replaces Section
230593 Testing Adjusting & Balancing (TAB)	Word Document	June 2025	15990
230900 Mechanical Systems Controls	Word Document	May 2024	15975
230901 Mechanical Systems Controls TURNKEY	Word Document	June 2023	
230905 Mechanical Systems Controls (Hospital Projects)	Word Document	July 2026	
230910 VAV/Combination Sash Fume Hood Laboratory Controls-DDC	Word Document	June 2021	15912
230920 Lab Terminal Air Flow Units & Controls	Word Document	June 2015	15910
230930 Refrigerant Detection & Alarm	Word Document	November 2018	15635

PDF Version	Word Version	Last Revision	Replaces Section
231113 Fuel Oil Systems	Word Document	December 2012	15483
231123 Facility Natural Gas Piping	Word Document	June 2025	15488
232116 Hydronic Piping Specialties	Word Document	January 2023	15515
232123 Plumbing and Hydronic Pumps	Word Document	April 2018	15160
232216 Steam & Condensate Piping Specialties	Word Document	December 2012	15525
232300 Refrigerant Piping	Word Document	April 2018	15530
232513 Chemical Water Treatment – Closed Loop	Word Document	February 2026	15189
232516 – Chemical Water Treatment – Open Loop Systems	Word Document	February 2026	
232519 Steam Boiler Chemical Water Treatment	Word Document	December 2012	15188
233100 HVAC Ducts & Casings	Word Document	June 2025	15890
233300 Air Duct Accessories & RGDs	Word Document	June 2025	15895
233400 Fans	Word Document	June 2025	15870
233600 Air Terminal Units	Word Document	January 2024	15896

PDF Version	Word Version	Last Revision	Replaces Section
234000 HVAC Air Cleaning Devices	Word Document	June 2025	15885
235100 Breechings, Chimneys & Stacks	Word Document	April 2018	15575
235150 Venting Systems For Specialty Gas Fired Appliances	Word Document	October 2023	
235239 Fire Tube Boilers (Hot Water)	Word Document	October 2023	15557
235240 Fire Tube Boilers (Steam)	Word Document	April 2018	15558
235300 Heating Boiler Feed Water & Blow-down Equip	Word Document	December 2012	15559
235716 Steam-To-Water Heat Exchangers	Word Document	November 2022	
235719 Plate Type Liquid to Liquid Heat Exchanger	Word Document	January 2014	
236416 Centrifugal Water Chillers	Word Document	February 2013	15684
236500 Cooling Towers	Word Document	March 2013	15710
237213 Rotary Air-to-Air Energy Recovery Wheels	Word Document	January 2024	
237323 Custom Air Handling Units	Word Document	June 2025	15854

PDF Version	Word Version	Last Revision	Replaces Section
237324 Semi-Custom Air Handling Units	Word Document	January 2024	15855
238200 Terminal Heating Units – Hot Water	Word Document	February 2022	
238216 Coils and Drain Pans	Word Document	June 2025	15820
238219 Floor Mounted Fan Coil Units (Un-ducted)	Word Document	January 2020	15763
238220 Horizontal Fan Coil Units	Word Document	August 2020	15764
238221 Blower Coil Units	Word Document	August 2020	15765
238245 Chilled Beams	Word Document	October 2022	
238413 Steam Humidifiers	Word Document	June 2025	15810

Division 25 Integrated Automation

PDF Version	Word Version	Last Revision	Replaces Section
250000 INTEGRATED AUTOMATION (HOSPITAL PROJECTS)	Word Document	April 2026	MS230924

Division 26 Electrical

PDF Version	Word Version	Last Revision	Replaces Section
260500 Common Work Results for Electrical	Word Document	April 2016	16010
260513 Medium, Low & Control Voltage Cables	Word Document	November 2014	16120
260526 Grounding & Bonding for Electrical	Word Document	December 2012	16450
260533 Electrical Materials & Methods	Word Document	April 2026	16050
260543 Underground Services for Electrical Systems	Word Document	March 2014	16110
260800 Electrical Acceptance Tests	Word Document	December 2022	16950
261000 Medium Voltage Electrical Distribution	Word Document	December 2012	16300
261100 Unit Substations	Word Document	November 2023	16313 16315 16316
261102 Installation of Pre-Purchased Unit Substations	Word Document	December 2012	16314

PDF Version	Word Version	Last Revision	Replaces Section
262000 Low Voltage Electrical Distribution	Word Document	March 2019	16400
262726 Wiring Devices	Word Document	July 2024	16140
262900 Motor Controls	Word Document	August 2013	16480
263000 Engine-Generator System	Word Document	November 2024	16231
263323 Central Battery Inverters	Word Document	September 2020	
263353 Static Uninterruptible Power Supply	Word Document	February 2021	
264313 Surge Protection For Low-Voltage Electrical Power Circuits	Word Document	July 2020	
265100 Interior Lighting	Word Document	June 2015	16511
265600 Exterior Lighting	Word Document	September 2025	16521

Division 27 Communications

PDF Version	Word Version	Last Revision	Replaces Section
272000 Voice & Data Communications	Word Document	August 2024	16740
275313 Clock Systems	Word Document	January 2019	16730

Division 28 Electronic Safety And Security

PDF Version	Word Version	Last Revision	Replaces Section
281300 Access Control & Monitoring System	Word Document	April 2026	16727
281600 Security Systems	Word Document	December 2012	16724
283100 Fire Detection and Alarm System	Word Document	September 2022	16720 16720AA
283102 Fire Detection and Alarm System (Hospital Projects)	Word Document	September 2013	16720-H

Division 31 Earthwork

PDF Version	Word Version	Last Revision	Replaces Section
312000 Earth Moving	Word Document	December 2012	02300
312323 Fill	Word Document	December 2012	02315
312326 Flowable Fill	Word Document	December 2012	02310
312500 Erosion and Sedimentation Controls	Word Document	January 2017	02215

Division 32 Exterior Improvements

PDF Version	Word Version	Last Revision	Replaces Section
329210 Lawn Repair	Word Document	December 2012	02935

Division 33 Utilities

PDF Version	Word Version	Last Revision	Replaces Section
331100 Water Distribution Piping	Word Document	July 2017	
333100 Sanitary Sewer	Word Document	June 2017	
334100 Storm Utility Drainage	Word Document	February 2017	
336100 Hydronic Utilities	Word Document	November 2018	
336200 QA/QC for Tunnel Projects	Word Document	January 2022	

PDF Version	Word Version	Last Revision	Replaces Section
336313 Underground Steam and Condensate Distribution Piping	Word Document	January 2022	
336330 Utility Tunnels – Steam & Condensate Distribution Systems	Word Document	January 2026	
336333 Thermal Energy Utility Metering	Word Document	January 2026	

8.0 Preferred Manufacturers List

Preferred List of Manufacturers (PML) contains specific manufacturers that are acceptable for use on U-M projects. This section is divided by CSI number. When the A/E uses U-M Master Specifications for a project, adding manufacturers from the PML as approved manufacturers in the specification is optional.

For U-M Health funded projects, refer to the U-M Health Preferred Manufacturers Lists.

Preferred Manufacturers List General Procedures

Request for Addition or Change of Listing to U-M Preferred Manufacturers List

If you have trouble accessing a document, please contact the DG Editor for assistance.

Guideline	Last Update	Replaces Document
8.1 Substitutions	February 2015	SID-E Substitutions
8.2 Architectural	April 2024	
8.3 Mechanical	July 2022	
8.4 Electrical	August 2025	
8.5 Site/Civil		

U-M Design Guidelines Technical Committees, Committee Chairs and Email Addresses

9.0 Standard Details and Schedules

Standard Details express typical University requirements, and thus should be used in place of the equivalent A/E detail. Professional judgement is required to make Standard Details project specific.

For University of Michigan Hospitals and Health Centers (UMHHC) funded projects, click here for a list of Technical Requirements specific to work at UMHHC.

If you have trouble accessing a document, please contact the DG Editor for assistance.

Guideline
9.1 Architectural
9.2 Mechanical
9.3 Electrical
9.4 Site/Civil

9.1 Architectural

Architectural Design Details, Schedules and Tables	Last Revision
SBA 5.5 Proposed Layout Custodial Room	January 2018
SBA 5.5 Proposed Layout Custodial Suite	January 2018

Master Details for metering are located under 9.4 Site/Civil.

Section 211313 – Wet And Dry Pipe Sprinkler Systems (15300)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	**Last Update**
MD 2211313 001 Fire Service System	January 2014
MT 221113 001 Piping System Pressure Test	July 2002
MD 211313 002 Fire Pump System	March 2013

Section 220020 – High Purity Water Systems

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	**Last Update**
MD 220020 001 High Purity Water System	July 2019
MD 220020 002 RO MakeUP System Clean Steam humid	July 2019
MD 220020 003 Water Softener for Boilers	July 2019

Section 220516 – Pipe Expansion Joints (15125)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 220516 001 DHW Expansion Joint	March 2007
MS 220516 001 Expansion Joint	July 2009

Section 220519 – Thermometers, Pressure Gauges & Accessories (15130)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 220519 001 Thermometer	May 2004
MD 220519 002 Pressure Gauge	May 2004

Section 220523 – Valves (15100)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 220523 001 DHW Valve	February 2009

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 220523 002 Companion Flange	September 2007

Section 220719 – Mechanical Systems Insulation (15250)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 220719 001 Steam Insulation Jacket	September 2007
MD 220719 002 DHW Insulation Jacket	September 2007
MD 220719 003 Duct Blanket Fiberglass	December 2003

Section 221119 – Domestic Water Piping Specialties (15411)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 221119 001 Domestic Water System Service	March 2013

Section 230900 – Mechanical Systems Controls (15975)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	**Last Update**
MD 230900 001 Differential Pressure Transmitter Liquid	October 2020
MD 230900 002 DDC Panel Assembly	October 2020
MD 230900 003 Mechanical Controls Symbols	September 2020
MD 230900 004 Mechanical Controls Blocks	September 2020
MD 230900 005 Vivarium Non-Holding Room Control Drawing	February 2021
MD 230900 006 Vivarium Surgery Room Control Drawing	February 2021
MD 230900 007 Vivarium Cage Wash Room Control Drawing	February 2021

Section 230920 – Lab Terminal Air Flow Units & Controls (15910)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	**Last Update**
MD 230920 001 Typical Lab DDC Architecture	June 2016

Section 230930 – Refrigerant Detection & Alarm (15635)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 230930 001 Refrigerant Monitor Control	August 2015

Section 232116 – Hydronic Piping Specialties (15515)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 232116 001 Water System Air Vent	June 2004
MD 232116 002 Coalescing Separator	November 2012

Section 232123 – Plumbing And Hydronic Pumps (15160)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 232123 001 End Suction Pump Installation	August 2025
MD 232123 002 Pump Base	September 2024
MD 232123 003 Vertical Split Case Pump	November 2012
MD 232123 004 Inline Pump and Piping	August 2025

Section 232216 – Steam & Condensate Piping Specialties (15525)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 232216 001 F&T Steam Trap Assembly	November 2009
MD 232216 002 Bucket Steam Trap Assembly	November 2009

Section 232513 – Chemical Water Treatment – Closed Loop (15189)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 232513 001 Glycol Feed System	March 2012
MD 232513 002 Closed System Makeup	October 2017
MD 232513 003 Closed System Shot Feeder	November 2018

Section 233600 – Air Terminal Units (15896)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 233600 001 Draw Thru Coil Condensate Drain	May 2004
MD 233600 002 Blow Thru Coil Condensate Drain	May 2004
MS 236416 002 Air Cooled Chiller	January 2003
MD 233600 003 HWH Duct-Mounted Reheat Coil	December 2023
MD 233600 004 Supply Air DDC TAU Clearance	July 2009

Section 233660 – Up-Feed Hot Water Fin-Tube Piping

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 233660 008 Up-Feed Hot Water Fin-Tube Piping	December 2020

Section 233660 – Down-Feed Hot Water Fin-Tube Piping

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 233660 012 Down-Feed Hot Water Fin-Tube Piping	December 2020

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MS 235240 001 Steam Boiler	April 2003
MS 235300 001 Preheat Boiler Feed Unit and Pump	April 2003

Section – 235716 Steam To Water Heat Exchanger

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 235716 001 Critical Steam to Water Heat Exchanger P & ID	November 2019
MD 235716 002 Non-Critical Steam to Water Heat Exchanger P & ID	November 2019
MD 235716 002 Water Cooled Chiller VSD Filter Manifold	August 2022
MD 235716 003 Steam to Water Heat Exchanger Piping Detail	February 2017

Section 236416 – Centrifugal Water Chillers (15684)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 236416 001 Electric Drive Water Cooled Chiller	September 2024
MS 236416 001 Electric Water Cooled Centrifugal Screw Scroll Chiller	January 2003

Section 236500 – Cooling Towers (15710)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 236500 001 Cooling Tower LPS Freeze Protection	April 2007
MD 236500 002 Seasonal Tower Piping	November 2007
MD 236500 003 Condenser Water Treatment Equip	May 2013
MS 236500 001 Cooling Tower	April 2007
MD 236500 004 Cooling Tower Schematic	December 2019

Section – 238216 Coils And Drain Pans (15820)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 238216 001 HWH Stacked Coil	June 2006
MD 238216 002 HWH Stacked Coil w_Mixing Valve	June 2006
MD 238216 003 CHW Stacked Coil	June 2006
MD 238216 004 CHW Stacked Coil w_Mixing Valve	June 2006
MD 238216 005 STM Stacked Coil	June 2003
MD 238216 006 HWH Stacked Coil (pumped)	July 2021

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 238216 007 HWH Single Coil (pumped)	July 2021
MD 238216 008 CWH Stacked Coil (pumped)	July 2021
MD 238216 009 CWH Single Coil (pumped)	July 2021

Section 238220 – Horizontal Fan Coil Units (15764)

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 238220 001 Fan Coil Unit Installation	July 2007

Section 238245 – 001 Chilled Beams Piping

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	Last Update
MD 238245 001 Chilled Beams Piping Detail	April 2022
MS 238245 001 Chilled Beams Piping Schedule	April 2022

Tunnel Toolkit

Mechanical Details (MD-Master Detail, MS-Master Schedule, MT-Master Table)	**Last Update**
Title Block (reference)	October 2023
Tunnel Kit Coversheet	October 2023
m101 (reference 1)	April 2015
t101 (reference 2)	April 2015
TK – 01	October 2023
TK – 02	October 2023
TK – 03	October 2023
TK – 04	October 2023
TK – 05	October 2023
TK – 06	October 2023
TK – 07	October 2023
TK – 08	October 2023
TK-12 Tunnel Temporary Shoring Detail	October 2023

Electrical Standard Details

Guideline	Last Updated
26051301 – Aluminum Wire Terminations (under review)	April 2014
26051302 – Aluminum Conductor Option	April 2014
26052601 – Ground Bus Detail	November 2013
26052602 – Isolated Ground Receptacle Wiring Diagram-alt	March 2014
26052603 – Transformer Pad Grounding Detail-alt	March 2014
26052604 – Manhole Grounding	April 2014
26052605 – Power Manole Grounding With Non-metallic Racks	March 2014
26052606 – Typical Column Grounding Detail	March 2014
26052607 – Ground Bus Detail Telcom	January 2019
26052608 – Power Manhole For High Water Table Grounding With Non-metalic Racks	March 2014
26053301 – Conduit Penetration Thru Existing Floor	April 2014
26053302 – Conduit Penetration Thru New Floor	April 2014
26053303 – Hilti Conduit Penetration	April 2014
26053304 – Conduit Penetration Thru Existing Roof	April 2014

Guideline	Last Updated
26053305 – Conduit Penetration Thru Roof	April 2014
26053306 – Conduit Penetration Thru New Roof	April 2014
26053307 – New Conduit Thru New Membrane Roof	April 2014
26053308 – Existing Conduit Thru New Membrane Roof	April 2014
26053309 – Conduit Roof Support	April 2014
26053310 – Conduit Wall Penetration	April 2014
26053311 – Conduit Penetration Thru Interior Wall	April 2014
26053312 – Bench & Wall Plugmold Detail	April 2014
26053313 – Dual Channel Raceway Installation	February 2015
26053314 – Dual Channel Surface Raceway	April 2014
26053315 – Metallic Raceway With Modular Furniture Feed	February 2015
26053316 – Dual Channel Faceplate Installation	April 2014
26053317 – Benchtop Vertical Raceway Power	April 2014
26053318 – Benchtop Vertical Raceway Data	April 2014
26053319 – End Of Bench Vertical Raceway	April 2014
26053320 – Dual Channel Non-metallic Raceway	April 2014
26053321 – Dual Channel Non-metallic Raceway	April 2014
26053322 – Non-metallic Surface Raceway	April 2014
26053323 – Wire Harness	April 2014

Guideline	Last Updated
26053324 – Ceiling Mounted Speaker	April 2014
26053325 – Hanging Receptacle	April 2014
26053328 – Wall Mtd Ups Recep Pnl Detail	April 2014
26053329 – Power Furniture Interface Detail	April 2014
26053330 – Cable Tray Mounting Detail	April 2014
26053331 – Aluminum Indoor Cable Tray Clamping Detail	April 2014
26053332 – Center Hung Cable Tray	April 2014
26053333 – Cable Tray Penetration Through Fire Rated Wall	April 2014
26053334 – Tray Mounted Raceway	April 2014
26053335 – Fumehood Electrical Service Detail	April 2014
26053336 – Walk-in Fumehood Electrical Service Detail	April 2014
26053337 – Island Bench Detail	April 2014
26053338 – Window Ac Unit Electrical Detail	April 2014
26053339 – Power-telephone & Data Cable Connections	April 2014
26053340 – Av Raceway Detail	April 2014
26053341 – Power Pole Detail	April 2014
26053342 – Vertical Raceway For Existing Walls	April 2014
26054301 – Underground Power Duct Sections	July 2014

Guideline	Last Updated
26054302 – Underground Telecommunication Duct Sections	April 2014
26054303 – Duct Bank Spacer & Reinforcing Details	April 2014
26054304 – 10x10x7 Pre-cast Power Manhole	April 2014
26054305 – 12x5x6-6 Pre-cast Telecommunications Manhole	April 2014
26054306 – 8-8×8-8×7 Pre-cast Power Manhole	April 2014
26054307 – 8x4x6 Pre-cast Telecommunications Manhole	April 2014
26054308 – Detroit Edison Manhole	April 2014
26054309 – Neck & Cover Details For Cast In Place Manholes	April 2014
26054310 – Angle Entrance Detail At Manholes	April 2014
26054311 – Duct Reinforcing At Manholes-vaults-buildings	April 2014
26054312 – Cable Support Detail Within Power Manholes	April 2014
26054313 – Cable Support Detail Within Power Manholes	April 2014
26054314 – 4x4x4 Pre-cast Itcs Handhole	April 2014
26054316 – Trench Detail	April 2014
26054317 – Post Mounted Underground Service	April 2014
26054319 – Power Manhole Bell End Installation	April 2014
26054320 – Orangeburg To Pvc Transition	April 2014

Guideline	Last Updated
26054321 – Casing Details With Sled	April 2014
26054322 – 8x6x7 Pre-cast Telecommunications Manhole	April 2014
26054323 – Miss Dig	April 2014
26110001 – Single Ended Substation	November 2018
26110002 – Double Ended Substation	November 2018
26110003 – Substation Fire Pump Disconnect	Removed November 2018
26110004 – Maintenance Back Feed Tap Box	April 2014
26110005 – Concrete Equipment Pad	April 2014
26110006 – Switch Anchoring Detail	April 2014
26110007 – Leveling Channel Detail	April 2014
26200001 – Service Entrance Transformer Wiring Diagram	April 2014
26200002 – Step Down Transformer Wiring Diagram	August 2020
26200003 – Panel Naming Procedure	April 2014
26272601 – Small Room Line Voltage Lighting Control Diagram	August 2020
26272602 – Small Room Low Voltage Lighting Control Diagram	August 2020
26272603 – Single Zone Low Voltage Lighting Control Diagram	August 2020
26272604 – Emergency Lighting Low Voltage Lighting Control Diagram	August 2020

Guideline	Last Updated
26272605 – Multi Zone Low Voltage Lighting Control Diagram	August 2020
26272606 – Daylight Harvesting Low Voltage Lighting Control Diagram	August 2020
26272607 – Multiple Preset Scene Low Voltage Lighting Control Diagram	August 2020
26290001 – MCC One Line Diagram	April 2014
26290002- Control Wiring Diagram	April 2014
26290003 – Motor Control Center Installation Det	April 2014
26510001 – Exit Sign Mounting Detail	April 2014
26510002 – Student Exit Sign Mounting Detail	April 2014
26510003 – Surface Or Hanging Emergency Lighting Fixture	April 2014
26510004 – Elevator Shaft Lighting	April 2014
26510005 -recessed Can Emergency Lighting Fixture	April 2014
26510006 – Emergency Light Battery Exerciser	April 2014
26510007 – Inner Lamp Switch Dim Detail (type F) F Fixtures	April 2014
26510008 – Cable Way- Hallway Cove Light Detail	April 2014
26510009 – Elevator Shaft Lighting	April 2014
26510010 – Recessed Emergency Lighting Fixture	April 2014
26510011 – Schematic For Os F (lights- Hvac Fcu)	April 2014
26510012 – Schematic For Os S (lights Hvac Fcu Dual)	April 2014

Guideline	Last Updated
26510013 – Schematic For Os F (lights- Hvac)	April 2014
26510014 – High Bay Fixture Mounting	April 2014
26510015 – Cove Light Mounting Detail	April 2014
26560002 – Riser For Site Lighting Power Source	April 2014
26560003 – Pedestrian Pole Base Against Seatwall	December 2022
26560004 – Site Lighting Trench Detail	May 2015
26560005 – Underground Sleeve Detail	April 2014
26560006 – Typical Pole Wiring Detail	December 2022
26560007 – Single Globe Unit	May 2015
26560008 – Double Globe Unit	May 2015
26560009 – Five Globe Unit	May 2015
26560010 – Street Light Fixture Detail	December 2022
26560011 – Pedestrian Light Pole Base In Pavement	December 2022
26560012 – Pedestrian Light Pole Base In A Seatwall	December 2022
26560013 – Pedestrian Light Pole Base In Lawn	December 2022
26560014 – Parking Lot Fixture Detail	December 2022
26560015 – Pole Base Detail For Walkway Lighting	December 2022
26560016 – Pedestrian Light Wall Mounted	May 2015
26560017 – Pedestrian Pole Base Plan View	December 2022
26560018 – Musco Electrical Enclosure Detail	April 2014

Guideline	Last Updated
26560019 – Musco Base & Pole Electrical Detail	April 2014
26560020 – Musco Pole Top Assembly Electrical Detail	April 2014
26560021 – Slipfitter Mtd Detail	May 2015
26560022 – Wall Mounting Detail	May 2015
26560024 – Riser For Building-Mounted Exterior Lighting Power Source	May 2015
26560025 – Pedestrian Top Wall	May 2015
26560026 – Pedestrian Top Wall	April 2014
27200001 – Bldg Elevation Telecommunication Rm Arrangements	April 2014
27200002 – Elevation Communication Detail	April 2014
27200003 – Telcom Rack Power Detail	April 2014
27200005 – Typ UM Emergency Phone Kiosk	January 2026
27200006 – Emergency Phone Freestanding	November 2014
27200007 – Emergency Phone Wall Mount	November 2014
27200008 – Mounting of #293SL Telephone	November 2014
27200010 – Two-Way Comm System	March 2026
28130001 – Typ Raceway Installation At Single Door With Electric Strike (Request from Design Manager)	April 2014
28130002 – Typ Raceway Installation At Single Door With Electric Moritse Device(Request from Design Manager)	April 2014

Guideline	Last Updated
28130003 – Typ Raceway Installation At Single Door With E-type Electric Panic Device(Request from Design Manager)	April 2014
28130004 – Typ Raceway Installation At Single Door With El-type Electric Panic Device(Request from Design Manager)	April 2014
28130006 – Typ Raceway Installation At Double Door With El-type Electric Panic Device(Request from Design Manager)	April 2014
28130007 – Control Wiring For Door Hold Opens(Request from Design Manager)	April 2014
28130008 – Typ Raceway Installation At Doors With Monitoring Sensor(Request from Design Manager)	April 2014
28130009 – Typ Raceway At Single Fire Rated Door(Request from Design Manager)	April 2014
28130010- Card Reader And Door Actuator Mounting(Request from Design Manager)	April 2014
28130011 – Typ Raceway Installation At Door Hold Open Devices(Request from Design Manager)	April 2014
28130012 – Card Reader Pedestal Detail	April 2018
28130013 – Installation For Main 1st Card Reader Panel Assembly In Bldg(Request from Design Manager)	April 2014
28130014 – Ncrc Single Door W Elec Mortice(Request from Design Manager)	April 2014
28160015 – MC-Edge RTU Electrical Detail	January 2023
28160016 – Audio System Block Diag (classrm Hearing Assist)	April 2014
28160017 – Hearing Assist Antenna(classrm Hearing Assist)	April 2014

Guideline	Last Updated
28310001 – Duct Smoke Detector Installation	April 2014
28310004 – Riser For Hearing Impaired Strobe Detail #3	April 2014
28310005 – Smoke Det Interface Conn Temp Controls	April 2014
28310006 – Smoke Det Interface Addressable System	April 2014
28310007 – Smoke Det Interface Hardwired System	April 2014
28310008 – Smoke Det Interface No Fire Alarm System	April 2014
28310009 – Overall Interconnection Diagram	April 2014
28310010 – Elevator Recall Control Wiring	September 2014
28310011 – Elevator Recall Control Program Matrix	September 2014
28310012 – Elevator Recall Control Schematic Diagram	September 2014

Notes

Guideline	Last Updated	PDF	Microstation	AutoCAD
Notes – Civil Standard	July 2019	PDF	MS Word	
Notes – SESC And EHS	July 2019	PDF	MS Word	

Concrete Curb Details

Guideline	Last Updated
Curb & Gutter Details Composite	December 2023
18" Gutter Pan	January 2017
Straight Curb	January 2017
Fastener Strip Detail	January 2017

Concrete Sidewalk Details

Guideline	Last Updated
Standard Sidewalk Detail	January 2017
Thickened Edge Walk Detail	January 2017
Pavement Expansion Joint	January 2017

Guideline	Last Updated
Sidewalk Control Joint Layout	January 2017
MDOT Sidewalk Ramp R028J	January 2018

Landscape

Guideline	Last Updated
New Seed Area	July 2018
Sod Joint	July 2018
Tree Planting	July 2018
Evergreen Planting	July 2018
Shrub Planting	July 2018
Shrub Bed Planting	July 2018
Aluminum Edging	July 2018
Groundcover	July 2018
Vine Planting	July 2018
Bulb Planting	July 2018

Mechanical Details

Guideline	Last Updated
Medium Pressure to Low Pressure Steam PRV Station Diagram	January 2026

Guideline	Last Updated
Utility Maintained- Insertion Type Flow Measuring Device Detail(Steam Application)	January 2026
Utility Maintained – Floor Mounted Building Condensate Return Unit	January 2026
Multiple Utilities Plant Hydronic Flow Meter Pipping Diagram	January 2026
Hydronic Flow Meter BTU Computer Diagram	January 2026
BTU Meter Wiring Detail	January 2026

Miscellaneous Details

Guideline	Last Updated
Bike Racks – Various Surfaces	October 2022
Bicycle Hoops – Typical Layout	January 2017
Concrete Wheel Stops	January 2017
Bollard	January 2017
Sign Mount Detail	January 2017
Landscape Island Topsoil Detail	January 2017
Frost Free Stoop	January 2017
Road Utility Location Plan	January 2017
City of Ann Arbor Utility Material Requirements (note that U-M material requirements meet or exceed City requirements)	February 2020

Pavement Details

Guideline	Last Updated
Parking Lot Pavement	January 2017
Road Pavement	January 2017
Milled Edge	January 2017
Bituminous Walk Path	January 2017
Pervious Concrete Detail	January 2017
Porous Concrete Detail	January 2017

Paver Details

Guideline	Last Updated
Paver – Permeable System On Porous Concrete	January 2017
Precast Paver On Concrete Base	January 2017

Sanitary Sewer Details

Guideline	Last Updated
City of Ann Arbor Standard Details	November 2015

Site Furnishings Details

Guideline	Last Updated
Bench Specification	January 2017
Chair Specifications	January 2017
Memorial Bench Specifications	January 2017
Table Specifications	January 2017
Trash Recepticle Specifications	January 2017

Soil Erosion Details

Guideline	Last Updated
Inlet Filter Sack	January 2017
Soil Erosion Blanket	January 2017
Silt Fence	January 2017
Rip-Rap Detail	January 2017
Seeded Area	January 2017
Anti-Tracking Pad Detail	January 2017
Straw Wattle Detail	January 2017
Trench Drain Filter Fabric	January 2017
Stone Inlet Filter	January 2017
Straw Bale – Removed June 2018	January 2017

Storm Details

Guideline	Last Updated
2' Diameter Storm Inlet	January 2017
4' Diameter Precast Catch Basin	January 2017
4' Diameter Precast Storm Manhole	September 2017
Double Storm Catch Basin	January 2017
Underdrain	January 2017
Underdrain With Curb & Gutter	January 2017
MH Cover Adjustment And Structure Rebuild	January 2017

Trench Details

Guideline	Last Updated
Utility Trench With Asphalt Patch	January 2017
Utility Trench With Concrete Patch	January 2017
Utility Trench Gravel Patch	January 2017
Utility Trench Green Belt	January 2017

Wall Details

Guideline	Last Updated
Typical 30" To 56" Retaining Wall Detail	January 2017

Guideline	Last Updated
Typical Concrete Seatwall	January 2017
Typical Wall Jointing & Corners	January 2017

Water Main Details

Guideline	Last Updated
City of Ann Arbor Water Main Standard Details	November 2015