# Project Building Information Modeling Protocol Form

PROJECT: (Name and address)		

PROTOCOL VERSION NUMBER:

DATE:

PREPARED BY:

DISTRIBUTION TO: (List each individual to whom this protocol is distributed. Include individuals listed in Section 1.1, or reference Section 1.1, along with any additional recipients.)

## **TABLE OF ARTICLES**

- 1 GENERAL PROVISIONS
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# specific

This document is intended to be used in conjunction with a Project specific AIA Document E203<sup>™</sup>– 2013, Building Information Modeling and Digital Data Exhibit, which the Parties will incorporate into their agreement for the Project, and a Project specific AIA Document G201<sup>™</sup>– 2013, Project Digital Data Protocol Form.

#### ARTICLE 1 GENERAL PROVISIONS

§ 1.1 For each Project Participant that has incorporated the Project specific AIA Document E203<sup>TM</sup>–2013, Building Information Modeling and Digital Data Protocol Exhibit, dated

\_\_\_\_\_\_, into its agreement for the Project, identify and provide the contact information for individuals responsible for implementation of the Modeling protocols. If, for any Project Participant, more than one individual will be responsible for implementation of the Modeling protocols, list each individual separately and describe the unique Modeling Role assigned to each individual.

Modeling Role	Project Participant	Individual Responsible	Contact Information

§ 1.2 This document establishes the Modeling protocols for the Project. For purposes of these protocols, the Model is comprised of the following information and other data sets:

(Indicate disciplines, separate models, and other data that will be included within the Model and governed by the Modeling protocols.)

- § 1.3 Collaboration Protocols. The Project Participants' protocols for the collaborative utilization of the Model, if any, including communications protocols, a collaboration meeting schedule and colocation requirements, are as follows:
- § 1.4 Technical Requirements. The technical requirements relating to the utilization of Building Information Modeling, including specific software and hardware requirements are as follows:

§ 1.5 Training and Support. The parameters for any training or support program(s) that will be implemented with respect to any collaboration strategy or technical requirements are set forth below:

§ 1.6 Model Standard. The Model shall be developed in accordance with the following Model Standard, if any:

# § 1.7 Model Management Protocols and Processes

The following Model Management Protocols and Processes shall apply to the Project only if specifically designated in the table below as being applicable.

(Designate the Model Management Protocols and Processes applicable to the Project in the second column of the table below. In the third column, indicate whether the detailed description of the Model Management Protocol or Process is located in Section 1.8 or in an attached exhibit. If in an exhibit, identify the exhibit.)

		Applicability to Project	Location of Detailed Description (Section 1.8 below or in an
		(Applicable or	attachment to this exhibit
Model Mar	nagement Protocols and Processes	Not Applicable)	identified below)
§ 1.7.1	Model origin point, coordinate system, precision, file		
	formats and units		
§ 1.7.2	Model file storage location(s)		
§ 1.7.3	Processes for transferring and accessing Model files		
§ 1.7.4	Naming conventions		
§ 1.7.5	Processes for aggregating Model files from varying software platforms		
§ 1.7.6	Model access rights		
§ 1.7.7	Design coordination and clash detection procedures.		
§ 1.7.8	Model security requirements		

§ 1.8 Insert a description of each Model Management Protocol and Process identified in Section 1.7, if not further described in an exhibit attached to this document:

§ 1.9 Terms in this document shall have the same meaning as those in AIA Document E203–2013.

# ARTICLE 2 LEVEL OF DEVELOPMENT

§ 2.1 The Level of Development (LOD) descriptions, included in Section 2.2 through Section 2.6 below, identify the specific minimum content requirements and associated Authorized Uses for each Model Element at five progressively detailed levels of completeness. The Parties shall utilize the five LOD descriptions in completing the Model Element Table at Section 3.3.

#### § 2.2 LOD 100

§ 2.2.1 Model Element Content Requirements. The Model Element may be graphically represented in the Model with a symbol or other generic representation, but does not satisfy the requirements for LOD 200. Information related to the Model Element (i.e. cost per square foot, tonnage of HVAC, etc.) can be derived from other Model Elements.

# § 2.2.2 Authorized Uses

§ 2.2.2.1 Analysis. The Model Element may be analyzed based on volume, area and orientation by application of generalized performance criteria assigned to other Model Elements.

§ 2.2.2.2 Cost Estimating. The Model Element may be used to develop a cost estimate based on current area, volume or similar conceptual estimating techniques (e.g., square feet of floor area, condominium unit, hospital bed, etc.).

- § 2.2.2.3 Schedule. The Model Element may be used for Project phasing and determination of overall Project duration.
- § 2.2.2.4 Other Authorized Uses. Additional Authorized Uses of the Model Element developed to LOD 100, if any, are as follows:

## § 2.3 LOD 200

§ 2.3.1 Model Element Content Requirements. The Model Element is graphically represented within the Model as a generic system, object, or assembly with approximate quantities, size, shape, location, and orientation. Non-graphic information may also be attached to the Model Element.

#### § 2.3.2 Authorized Uses

- § 2.3.2.1 Analysis. The Model Element may be analyzed for performance of selected systems by application of generalized performance criteria assigned to the representative Model Elements.
- § 2.3.2.2 Cost Estimating. The Model Element may be used to develop cost estimates based on the approximate data provided and quantitative estimating techniques (e.g., volume and quantity of elements or type of system selected).
- § 2.3.2.3 Schedule. The Model Element may be used to show ordered, time-scaled appearance of major elements and systems.
- § 2.3.2.4 Coordination. The Model Element may be used for general coordination with other Model Elements in terms of its size, location and clearance to other Model Elements.
- § 2.3.2.5 Other Authorized Uses. Additional Authorized Uses of the Model Element developed to LOD 200, if any, are as follows:

# § 2.4 LOD 300

§ 2.4.1 Model Element Content Requirements. The Model Element is graphically represented within the Model as a specific system, object or assembly in terms of quantity, size, shape, location, and orientation. Non-graphic information may also be attached to the Model Element.

#### § 2.4.2 Authorized Uses

- § 2.4.2.1 Analysis. The Model Element may be analyzed for performance of selected systems by application of specific performance criteria assigned to the representative Model Element.
- § 2.4.2.2 Cost Estimating. The Model Element may be used to develop cost estimates suitable for procurement based on the specific data provided.
- § 2.4.2.3 Schedule. The Model Element may be used to show ordered, time-scaled appearance of detailed elements and systems.
- § 2.4.2.4 Coordination. The Model Element may be used for specific coordination with other Model Elements in terms of its size, location and clearance to other Model Elements including general operation issues.
- § 2.4.2.5 Other Authorized Uses. Additional Authorized Uses of the Model Element developed to LOD 300, if any, are as follows:

## § 2.5 LOD 400

§ 2.5.1 Model Element Content Requirements. The Model Element is graphically represented within the Model as a specific system, object or assembly in terms of size, shape, location, quantity, and orientation with detailing, fabrication, assembly, and installation information. Non-graphic information may also be attached to the Model Element.

## § 2.5.2 Authorized Uses

- § 2.5.2.1 Analysis. The Model Element may be analyzed for performance of systems by application of actual performance criteria assigned to the Model Element.
- § 2.5.2.2 Cost Estimating. Costs are based on the actual cost of the Model Element at buyout.
- § 2.5.2.3 Schedule. The Model may be used to show ordered, time-scaled appearance of detailed specific elements and systems including construction means and methods.
- § 2.5.2.4 Coordination. The Model Element may be used for coordination with other Model Elements in terms of its size, location and clearance to other Model Elements, including fabrication, installation and detailed operation issues.
- § 2.5.2.5 Other Authorized Uses. Additional Authorized Uses of the Model Element developed to LOD 400, if any, are as follows:

#### § 2.6 LOD 500

- § 2.6.1 Model Element Content Requirements. The Model Element is a field verified representation in terms of size, shape, location, quantity, and orientation. Non-graphic information may also be attached to the Model Elements.
- § 2.6.2 Authorized Uses. Specific Authorized Uses of the Model Element developed to LOD 500, if any, are as follows:

#### ARTICLE 3 MODEL ELEMENTS

#### § 3.1 Reliance on Model Elements

§ 3.1.1 At any particular Project milestone, a Project Participant may rely on the accuracy and completeness of a Model Element only to the extent consistent with the minimum data required for the Model Element's LOD for that Project milestone as identified below in the Model Element Table, even if the content of a specific Model Element includes data that exceeds the minimum data required for the identified LOD.

## § 3.1.2 Coordination and Model Refinement

Where conflicts are found in the Model, regardless of the phase of the Project or LOD, the Project Participant that identifies the conflict shall promptly notify the Model Element Authors and the Project Participant identified in AIA Document E203–2013 Section 4.8 as being responsible for Model management. Upon such notification, the Model Element Author(s) shall act promptly to evaluate, mitigate and resolve the conflict in accordance with the processes established in Section 1.7.7, if applicable.

## § 3.2 Table Instructions

§ 3.2.1 The Model Element Table in Section 3.3 indicates the LOD to which each Model Element shall be developed at each identified Project milestone and the Model Element Author.

§ 3.2.2 Abbreviations for each Model Element Author to be used in the Model Element Table are as follows: (*Provide abbreviations such as "A—Architect," or "C—Contractor."*)

Abbreviation

Model Element Author (MEA)

milestone, (2) the applicable notes Insert abbreviation Architect," or "C	OD required for each Model Element at each Project Model Element Author (MEA), and (3) references to any found in Section 3.4.  Ons for each MEA identified in the table below, such as "A—	100	Project Milestone 1	Notes	100	Project Milestone 2	Notes	LOD	Project Milestone 3	Notes	LOD	Project Milestone 4	Notes	LOD	Project Milestone 5	Notes	LOD	Project Milestone 6	Notes	Notes (See Sec 3.4)
		LOD	IVIEA	Notes	LOD	IVIEA	notes	LOD	IVICA	Notes	LOD	IVICA	Notes	LUD	IVIEA	Motes	LUD	IVIEA	Motes	
21-01 00 00	SUBSTRUCTURE																			
21-01 10	Foundations																			
21-01 10 10	Standard Foundations																			
21-01 10 10 10	Wall Foundations									, and the second										
21-01 10 10 30	Column Foundations																			
21-01 10 10 90	Standard Foundation Supplementary Components																			
21-01 10 20	Special Foundations																			
21-01 10 20 10	Driven Piles																			
21-01 10 20 15	Bored Piles																			
21-01 10 20 20	Caissons																			
21-01 10 20 30	Special Foundation Walls																			
21-01 10 20 40	Foundation Anchors																			
21-01 10 20 50	Underpinning																			
21-01 10 20 60	Raft Foundations																			
21-01 10 20 70	Pile Caps																			
21-01 10 20 80	Grade Beams																			
21-01 20	Subgrade Enclosures																			
21-01 20 10	Walls for Subgrade Enclosures																			
21-01 20 10 10	Subgrade Enclosure Wall Construction																			
21-01 20 10 20	Subgrade Enclosure Wall Interior Skin																			
21-01 20 10 90	Subgrade Enclosure Wall Supplementary Components																			
21-01 40	Slabs-On-Grade																			
21-01 40 10	Standard Slabs-on-Grade																			

milestone, (2) the applicable notes j Insert abbreviation Architect," or "C	OD required for each Model Element at each Project Model Element Author (MEA), and (3) references to any found in Section 3.4. ons for each MEA identified in the table below, such as "A— —Contractor."		Project Milestone 1			Project Milestone 2			Project Milestone 3			Project Milestone 4			Project Milestone 5			Project Milestone 6		Notes (See Sec 3.4)
	tilizing OmniClass™	LOD	MEA	Notes																
21-01 40 20	Structural Slabs-on-Grade																			
21-01 40 30	Slab Trenches																			
21-01 40 40	Pits and Bases																			
21-01 40 90	Slab-On-Grade Supplementary Components																			
21-01 40 90 10	Perimeter Insulation																			
21-01 40 90 20	Vapor Retarder																			
21-01 40 90 30	Waterproofing																			
21-01 40 90 50	Mud Slab																			
21-01 40 90 60	Subbase Layer																			
21-01 60	Water and Gas Mitigation																			
21-01 60 10	Building Subdrainage																			
21-01 60 10 10	Foundation Drainage																			
21-01 60 10 20	Underslab Drainage																			
21-01 60 20	Off-Gassing Mitigation																			
21-01 60 20 10	Radon Mitigation																			
21-01 60 20 50	Methane Mitigation																			
21-01 90	Substructure Related Activities																			
21-01 90 10	Substructure Excavation	1																		
21-01 90 10 10	Backfill and Compaction																			
21-01 90 20	Construction Dewatering																			
21-01 90 30	Excavation Support																			
21-01 90 30 10	Anchor Tiebacks																			
21-01 90 30 20	Cofferdams																			
21-01 90 30 40	Cribbing and Walers																			
21-01 90 30 60	Ground Freezing																			
21-01 90 30 70	Slurry Walls																			
21-01 90 40	Soil Treatment																			
21-02 00 00	SHELL																			
21-02 10	Superstructure																			
21-02 10 10	Floor Construction																			
21-02 10 10 10	Floor Structural Frame																			
21-02 10 10 20	Floor Decks, Slabs, and Toppings																			
21-02 10 10 30	Balcony Floor Construction																			

milestone, (2) the applicable notes j Insert abbreviatio Architect," or "C	OD required for each Model Element at each Project Model Element Author (MEA), and (3) references to any found in Section 3.4. ons for each MEA identified in the table below, such as "A— C—Contractor."		Project Milestone 1			Project Milestone 2			Project Milestone 3			Project Milestone 4			Project Milestone 5			Project Milestone 6		Notes (See Sec 3.4)
Model Elements u	tilizing OmniClass™	LOD	MEA	Notes																
21-02 10 10 40	Mezzanine Floor Construction																			
21-02 10 10 50	Ramps																			
21-02 10 10 90	Floor Construction Supplementary Components												_							
21-02 10 20	Roof Construction										_									
21-02 10 20 10	Roof Structural Frame							7												
21-02 10 20 20	Roof Decks, Slabs, and Sheathing																			
21-02 10 20 30	Canopy Construction									1										
21-02 10 20 90	Roof Construction Supplementary Components																			
21-02 10 80	Stairs																			
21-02 10 80 10	Stair Construction																			
21-02 10 80 30	Stair Soffits																			
21-02 10 80 50	Stair Railings																			
21-02 10 80 60	Fire Escapes																			
21-02 10 80 70	Metal Walkways																			
21-02 10 80 80	Ladders																			
21-02 20	Exterior Vertical Enclosures																			
21-02 20 10	Exterior Walls																			
21-02 20 10 10	Exterior Wall Veneer																			
21-02 20 10 20	Exterior Wall Construction																			
21-02 20 10 30	Exterior Wall Interior Skin																			
21-02 20 10 40	Fabricated Exterior Wall Assemblies																			
21-02 20 10 50	Parapets																			
21-02 20 10 60	Equipment Screens																			
21-02 20 10 80	Exterior Wall Supplementary Components																			
21-02 20 10 90	Exterior Wall Opening Supplementary Components																			
21-02 20 20	Exterior Windows																			
21-02 20 20 10	Exterior Operating Windows																			
21-02 20 20 20	Exterior Fixed Windows																			
21-02 20 20 30	Exterior Window Wall																			
21-02 20 20 50	Exterior Special Function Windows																			
21-02 20 50	Exterior Doors and Grilles																			
21-02 20 50 10	Exterior Entrance Doors																			
21-02 20 50 20	Exterior Utility Doors																			

milestone, (2) the applicable notes	OD required for each Model Element at each Project Model Element Author (MEA), and (3) references to any found in Section 3.4. Ons for each MEA identified in the table below, such as "A—		Project Milestone 1			Project Milestone 2			Project Milestone 3			Project Milestone 4			Project Milestone 5			Project Milestone 6		Notes (See Sec 3.4)
Model Elements u	itilizing OmniClass™	LOD	MEA	Notes																
21-02 20 50 30	Exterior Oversize Doors																			
21-02 20 50 40	Exterior Special Function Doors																			
21-02 20 50 60	Exterior Grilles																			
21-02 20 50 70	Exterior Gates										4									
21-02 20 50 90	Exterior Door Supplementary Components							7												
21-02 20 70	Exterior Louvers and Vents																			
21-02 20 70 10	Exterior Louvers																			
21-02 20 70 50	Exterior Vents																			
21-02 20 80	Exterior Wall Appurtenances																			
21-02 20 80 10	Exterior Fixed Grilles and Screens																			
21-02 20 80 30	Exterior Opening Protection Devices																			
21-02 20 80 50	Exterior Balcony Walls and Railings																			
21-02 20 80 70	Exterior Fabrications																			
21-02 20 80 80	Bird Control Devices																			
21-02 20 90	Exterior Wall Specialties																			
21-02 30	Exterior Horizontal Enclosures																			
21-02 30 10	Roofing																			
21-02 30 10 10	Steep Slope Roofing																			
21-02 30 10 50	Low-Slope Roofing																			
21-02 30 10 70	Canopy Roofing																			
21-02 30 10 90	Roofing Supplementary Components																			
21-02 30 20	Roof Appurtenances																			
21-02 30 20 10	Roof Accessories																			
21-02 30 20 30	Roof Specialties																			
21-02 30 20 70	Rainwater Management																			
21-02 30 40	Traffic Bearing Horizontal Enclosures																			
21-02 30 40 10	Traffic Bearing Coatings																			
21-02 30 40 30	Horizontal Waterproofing Membrane																			
21-02 30 40 50	Wear Surfaces																			
21-02 30 40 90	Horizontal Enclosure Supplementary Components																			
21-02 30 60	Horizontal Openings																			
21-02 30 60 10	Roof Windows and Skylights																			
21-02 30 60 50	Vents and Hatches																			

milestone, (2) the applicable notes j	OD required for each Model Element at each Project Model Element Author (MEA), and (3) references to any found in Section 3.4. ons for each MEA identified in the table below, such as "A—		Project Milestone 1			Project Milestone 2			Project Milestone 3			Project Milestone 4			Project Milestone 5			Project Milestone 6		Notes (See Sec 3.4)
Model Elements u	tilizing OmniClass™	LOD	MEA	Notes																
21-02 30 60 90	Horizontal Opening Supplementary Components																			
21-02 30 80	Overhead Exterior Enclosures																			
21-02 30 80 10	Exterior Ceilings												7							
21-02 30 80 20	Exterior Soffits																			
21-02 30 80 30	Exterior Bulkheads							7												
21-03 00 00	INTERIORS																			
21-03 10	Interior Construction																			
21-03 10 10	Interior Partitions																			
21-03 10 10 10	Interior Fixed Partitions																			
21-03 10 10 20	Interior Glazed Partitions																			
21-03 10 10 40	Interior Demountable Partitions																			
21-03 10 10 50	Interior Operable Partitions																			
21-03 10 10 70	Interior Screens																			
21-03 10 10 90	Interior Partition Supplementary Components																			
21-03 10 20	Interior Windows																			
21-03 10 20 10	Interior Operating Windows																			
21-03 10 20 20	Interior Fixed Windows																			
21-03 10 20 50	Interior Special Function Windows																			
21-03 10 20 90	Interior Window Supplementary Components																			
21-03 10 30	Interior Doors																			
21-03 10 30 10	Interior Swinging Doors																			
21-03 10 30 20	Interior Entrance Doors																			
21-03 10 30 25	Interior Sliding Doors																			
21-03 10 30 30	Interior Folding Doors																			
21-03 10 30 40	Interior Coiling Doors																			
21-03 10 30 50	Interior Panel Doors																			
21-03 10 30 70	Interior Special Function Doors																			
21-03 10 30 80	Interior Access Doors and Panels																			
21-03 10 30 90	Interior Door Supplementary Components																			
21-03 10 40	Interior Grilles and Gates																			
21-03 10 40 10	Interior Grilles																			
21-03 10 40 50	Interior Gates																			
21-03 10 60	Raised Floor Construction																			

milestone, (2) the applicable notes j	OD required for each Model Element at each Project Model Element Author (MEA), and (3) references to any found in Section 3.4. ons for each MEA identified in the table below, such as "A—		Project Milestone 1			Project Milestone 2			Project Milestone 3			Project Milestone 4			Project Milestone 5			Project Milestone 6		Notes (See Sec 3.4)
Model Elements u	tilizing OmniClass™	LOD	MEA	Notes																
21-03 10 60 10	Access Flooring																			
21-03 10 60 30	Platform/Stage Floors																			
21-03 10 70	Suspended Ceiling Construction																			
21-03 10 70 10	Acoustical Suspended Ceilings										4									
21-03 10 70 20	Suspended Plaster and Gypsum Board Ceilings							7												
21-03 10 70 50	Specialty Suspended Ceilings																			
21-03 10 70 70	Special Function Suspended Ceilings																			
21-03 10 70 90	Ceiling Suspension Components						_													
21-03 10 90	Interior Specialties																			
21-03 10 90 10	Interior Railings and Handrails																			
21-03 10 90 15	Interior Louvers																			
21-03 10 90 20	Information Specialties																			
21-03 10 90 25	Compartments and Cubicles																			
21-03 10 90 30	Service Walls																			
21-03 10 90 35	Wall and Door Protection			4																
21-03 10 90 40	Toilet, Bath, and Laundry Accessories																			
21-03 10 90 45	Interior Gas Lighting																			
21-03 10 90 50	Fireplaces and Stoves																			
21-03 10 90 60	Safety Specialties																			
21-03 10 90 70	Storage Specialties																			
21-03 10 90 90	Other Interior Specialties																			
21-03 20	Interior Finishes																			
21-03 20 10	Wall Finishes																			
21-03 20 10 10	Tile Wall Finish																			
21-03 20 10 20	Wall Paneling																			
21-03 20 10 30	Wall Coverings																			
21-03 20 10 35	Wall Carpeting																			
21-03 20 10 50	Stone Facing																			
21-03 20 10 60	Special Wall Surfacing																			
21-03 20 10 70	Wall Painting and Coating																			
21-03 20 10 80	Acoustical Wall Treatment																			
21-03 20 10 90	Wall Finish Supplementary Components																			
21-03 20 20	Interior Fabrications																			

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Model Elements ut	ilizing OmniClass™	LOD	MEA	Notes																
21-03 20 30	Flooring																			
21-03 20 30 10	Flooring Treatment																			
21-03 20 30 20	Tile Flooring																			
21-03 20 30 30	Specialty Flooring																			
21-03 20 30 40	Masonry Flooring																			
21-03 20 30 45	Wood Flooring																			
21-03 20 30 50	Resilient Flooring									1										
21-03 20 30 60	Terrazzo Flooring																			
21-03 20 30 70	Fluid-Applied Flooring										7									
21-03 20 30 75	Carpeting																			
21-03 20 30 80	Athletic Flooring																			
21-03 20 30 85	Entrance Flooring																			
21-03 20 30 90	Flooring Supplementary Components																			
21-03 20 40	Stair Finishes																			
21-03 20 40 20	Tile Stair Finish																			
21-03 20 40 40	Masonry Stair Finish																			
21-03 20 40 45	Wood Stair Finish																			
21-03 20 40 50	Resilient Stair Finish																			
21-03 20 40 60	Terrazzo Stair Finish																			
21-03 20 40 75	Carpeted Stair Finish																			
21-03 20 50	Ceiling Finishes																			
21-03 20 50 10	Plaster and Gypsum Board Finish																			
21-03 20 50 20	Ceiling Paneling																			
21-03 20 50 70	Ceiling Painting and Coating																			
21-03 20 50 80	Acoustical Ceiling Treatment																			
21-03 20 50 90	Ceiling Finish Supplementary Components																			
21-04 00 00	SERVICES																			
21-04 10	Conveying																			
21-04 10 10	Vertical Conveying Systems																			
21-04 10 10 10	Elevators																			
21-04 10 10 20	Lifts																			
21-04 10 10 30	Escalators																			
21-04 10 10 50	Dumbwaiters															-	1			

milestone, (2) the applicable notes	OD required for each Model Element at each Project Model Element Author (MEA), and (3) references to any found in Section 3.4. ons for each MEA identified in the table below, such as "A—		Project Milestone 1			Project Milestone 2			Project Milestone 3			Project Milestone 4			Project Milestone 5			Project Milestone 6		Notes (See Sec 3.4)
Model Elements u	ıtilizing OmniClass™	LOD	MEA	Notes																
21-04 10 10 60	Moving Ramps																			
21-04 10 30	Horizontal Conveying									1										
21-04 10 30 10	Moving Walks																			
21-04 10 30 30	Turntables										_									
21-04 10 30 50	Passenger Loading Bridges							7												
21-04 10 30 70	People Movers																			
21-04 10 50	Material Handling																			
21-04 10 50 10	Cranes																			
21-04 10 50 20	Hoists																			
21-04 10 50 30	Derricks																			
21-04 10 50 40	Conveyors							1												
21-04 10 50 50	Baggage Handling Equipment																			
21-04 10 50 60	Chutes																			
21-04 10 50 70	Pneumatic Tube Systems																			
21-04 10 80	Operable Access Systems																			
21-04 10 80 10	Suspended Scaffolding																			
21-04 10 80 20	Rope Climbers																			
21-04 10 80 30	Elevating Platforms																			
21-04 10 80 40	Powered Scaffolding																			
21-04 10 80 50	Building Envelope Access																			
21-04 20	Plumbing																			
21-04 20 10	Domestic Water Distribution																			
21-04 20 10 10	Facility Potable-Water Storage Tanks																			
21-04 20 10 20	Domestic Water Equipment																			
21-04 20 10 40	Domestic Water Piping																			
21-04 20 10 60	Plumbing Fixtures																			
21-04 20 10 90	Domestic Water Distribution Supplementary Components																			
21-04 20 20	Sanitary Drainage																			
21-04 20 20 10	Sanitary Sewerage Equipment																			
21-04 20 20 30	Sanitary Sewerage Piping																			
21-04 20 20 90	Sanitary Drainage Supplementary Components																			
21-04 20 30	Building Support Plumbing Systems																			
21-04 20 30 10	Stormwater Drainage Equipment																			

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milestone, (2) the applicable notes	OD required for each Model Element at each Project Model Element Author (MEA), and (3) references to any found in Section 3.4.  Ons for each MEA identified in the table below, such as "A—		Project Milestone 1			Project Milestone 2			Project Milestone 3			Project Milestone 4			Project Milestone 5			Project Milestone 6		Notes (See Sec 3.4)
Model Elements u	tilizing OmniClass™	LOD	MEA	Notes																
21-04 20 30 20	Stormwater Drainage Piping																			
21-04 20 30 30	Facility Stormwater Drains																			-
21-04 20 30 60	Gray Water Systems																			
21-04 20 30 90	Building Support Plumbing System Supplementary Components																			
21-04 20 50	General Service Compressed-Air																			
21-04 20 60	Process Support Plumbing Systems									N.										
21-04 20 60 10	Compressed-Air Systems																			
21-04 20 60 20	Vacuum Systems										7									
21-04 20 60 30	Gas Systems																			
21-04 20 60 40	Chemical-Waste Systems																			
21-04 20 60 50	Processed Water Systems																			
21-04 20 60 90	Process Support Plumbing System Supplementary Components																			
21-04 30	Heating, Ventilation, and Air Conditioning (HVAC)																			
21-04 30 10	Facility Fuel Systems																			
21-04 30 10 10	Fuel Piping																			
21-04 30 10 30	Fuel Pumps																			
21-04 30 10 50	Fuel Storage Tanks																			
21-04 30 20	Heating Systems																			
21-04 30 20 10	Heat Generation																			
21-04 30 20 30	Thermal Heat Storage																			
21-04 30 20 70	Decentralized Heating Equipment																			
21-04 30 20 90	Heating System Supplementary Components																			
21-04 30 30	Cooling Systems																			
21-04 30 30 10	Central Cooling																			
21-04 30 30 30	Evaporative Air-Cooling																			
21-04 30 30 50	Thermal Cooling Storage																			
21-04 30 30 70	Decentralized Cooling																			
21-04 30 30 90	Cooling System Supplementary Components																			
21-04 30 50	Facility HVAC Distribution Systems																			
21-04 30 50 10	Facility Hydronic Distribution																			
21-04 30 50 30	Facility Steam Distribution																			
21-04 30 50 50	HVAC Air Distribution																			

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Model Elements u	tilizing OmniClass™	LOD	MEA	Notes																
21-04 30 50 90	Facility Distribution Systems Supplementary Components																			
21-04 30 60	Ventilation																			
21-04 30 60 10	Supply Air																			
21-04 30 60 20	Return Air										4									
21-04 30 60 30	Exhaust Air							7												
21-04 30 60 40	Outside Air																			
21-04 30 60 60	Air-to-Air Energy Recovery																			
21-04 30 60 70	HVAC Air Cleaning																			
21-04 30 60 90	Ventilation Supplementary Components																			
21-04 30 70	Special Purpose HVAC Systems																			
21-04 30 70 10	Snow Melting																			
21-04 40	Fire Protection																			
21-04 40 10	Fire Suppression																			
21-04 40 10 10	Water-Based Fire-Suppression																			
21-04 40 10 50	Fire-Extinguishing																			
21-04 40 10 90	Fire Suppression Supplementary Components																			
21-04 40 30	Fire Protection Specialties																			
21-04 40 30 10	Fire Protection Cabinets																			
21-04 40 30 30	Fire Extinguishers																			
21-04 40 30 50	Breathing Air Replenishment Systems																			
21-04 40 30 70	Fire Extinguisher Accessories																			
21-04 50	Électrical																			
21-04 50 10	Facility Power Generation																			
21-04 50 10 10	Packaged Generator Assemblies																			
21-04 50 10 20	Battery Equipment																			
21-04 50 10 30	Photovoltaic Collectors																			
21-04 50 10 40	Fuel Cells																			
21-04 50 10 60	Power Filtering and Conditioning																			
21-04 50 10 70	Transfer Switches																			
21-04 50 10 90	Facility Power Generation Supplementary Components																			
21-04 50 20	Electrical Service and Distribution																			
21-04 50 20 10	Electrical Service																			
21-04 50 20 30	Power Distribution																			

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Model Elements u	tilizing OmniClass™	LOD	MEA	Notes																
21-04 50 20 70	Facility Grounding																			
21-04 50 20 90	Electrical Service and Distribution Supplementary Components																			
21-04 50 30	General Purpose Electrical Power																			
21-04 50 30 10	Branch Wiring System							7												
21-04 50 30 50	Wiring Devices																			
21-04 50 30 90	General Purpose Electrical Power Supplementary Components																			
21-04 50 40	Lighting																			
21-04 50 40 10	Lighting Control																			
21-04 50 40 20	Branch Wiring for Lighting																			
21-04 50 40 50	Lighting Fixtures																			
21-04 50 40 90	Lighting Supplementary Components																			
21-04 50 80	Miscellaneous Electrical Systems																			
21-04 50 80 10	Lightning Protection																			
21-04 50 80 40	Cathodic Protection																			
21-04 50 80 70	Transient Voltage Suppression																			
21-04 50 80 90	Miscellaneous Electrical Systems Supplementary Components																			
21-04 60	Communications																			
21-04 60 10	Data Communications																			
21-04 60 10 10	Data Communications Network Equipment																			
21-04 60 10 20	Data Communications Hardware																			
21-04 60 10 30	Data Communications Peripheral Data Equipment																			
21-04 60 10 50	Data Communications Software																			
21-04 60 10 60	Data Communication Program and Integration Services																			
21-04 60 20	Voice Communications																			
21-04 60 20 10	Voice Communications Switching and Routing Equipment																			
21-04 60 20 20	Voice Communications Terminal Equipment																			
21-04 60 20 30	Voice Communications Messaging																			
21-04 60 20 40	Call Accounting																			
21-04 60 20 50	Call Management																			
21-04 60 30	Audio-Video Communication																			
21-04 60 30 10	Audio-Video Systems																			

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Model Elements u	tilizing OmniClass™	LOD	MEA	Notes																
21-04 60 30 50	Electronic Digital Systems																			
21-04 60 60	Distributed Communications and Monitoring																			
21-04 60 60 10	Distributed Audio-Video Communications Systems												_							
21-04 60 60 30	Healthcare Communications and Monitoring										4									
21-04 60 60 50	Distributed Systems							7												
21-04 60 90	Communications Supplementary Components																			
21-04 60 90 10	Supplementary Components									1										
21-04 70	Electronic Safety and Security																			
21-04 70 10	Access Control and Intrusion Detection																			
21-04 70 10 10	Access Control																			
21-04 70 10 50	Intrusion Detection																			
21-04 70 30	Electronic Surveillance																			
21-04 70 30 10	Video Surveillance																			
21-04 70 30 50	Electronic Personal Protection																			
21-04 70 50	Detection and Alarm																			
21-04 70 50 10	Fire Detection and Alarm																			
21-04 70 50 20	Radiation Detection and Alarm																			
21-04 70 50 30	Fuel-Gas Detection and Alarm	1																		
21-04 70 50 40	Fuel-Oil Detection and Alarm																			
21-04 70 50 50	Refrigeration Detection and Alarm																			
21-04 70 50 60	Water Intrusion Detection and Alarm																			
21-04 70 70	Electronic Monitoring and Control																			
21-04 70 70 10	Electronic Detention Monitoring and Control																			
21-04 70 90	Electronic Safety and Security Supplementary Components																			
21-04 70 90 10	Supplementary Components																			
21-04 80	Integrated Automation																			
21-04 80 10	Integrated Automation Facility Controls																			
21-04 80 10 10	Integrated Automation Control of Equipment																			
21-04 80 10 20	Integrated Automation Control of Conveying Equipment																			
21-04 80 10 30	Integrated Automation Control of Fire-Suppression Systems																			
21-04 80 10 40	Integrated Automation Control of Plumbing Systems																			
21-04 80 10 50	Integrated Automation Control of HVAC Systems																			
21-04 80 10 60	Integrated Automation Control of Electrical Systems																			

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Model Elements u	tilizing OmniClass™	LOD	MEA	Notes																
21-04 80 10 70	Integrated Automation Control of Communication Systems																			
21-04 80 10 80	Integrated Automation Control of Electronic Safety and Security Systems																			
21-04 80 10 90	Integrated Automation Supplementary Components																			
21-05 00 00	EQUIPMENT AND FURNISHINGS																			
21-05 10	Equipment																			
21-05 10 10	Vehicle and Pedestrian Equipment																			
21-05 10 10 10	Vehicle Servicing Equipment						1													
21-05 10 10 30	Interior Parking Control Equipment										7									
21-05 10 10 50	Loading Dock Equipment																			
21-05 10 10 70	Interior Pedestrian Control Equipment																			
21-05 10 30	Commercial Equipment																			
21-05 10 30 10	Mercantile and Service Equipment																			
21-05 10 30 20	Vault Equipment																			
21-05 10 30 25	Teller and Service Equipment																			
21-05 10 30 30	Refrigerated Display Equipment																			
21-05 10 30 35	Commercial Laundry and Dry Cleaning Equipment																			
21-05 10 30 40	Maintenance Equipment	_																		
21-05 10 30 50	Hospitality Equipment																			
21-05 10 30 55	Unit Kitchens																			
21-05 10 30 60	Photographic Processing Equipment																			
21-05 10 30 70	Postal, Packaging, and Shipping Equipment																			
21-05 10 30 75	Office Equipment																			
21-05 10 30 80	Foodservice Equipment																			
21-05 10 40	Institutional Equipment																			
21-05 10 40 10	Educational and Scientific Equipment																			
21-05 10 40 20	Healthcare Equipment																			
21-05 10 40 40	Religious Equipment																			
21-05 10 40 60	Security Equipment																			
21-05 10 40 70	Detention Equipment																			
21-05 10 60	Residential Equipment																			
21-05 10 60 10	Residential Appliances																			
21-05 10 60 50	Retractable Stairs																			

milestone, (2) the applicable notes f Insert abbreviatio Architect," or "C	DD required for each Model Element at each Project Model Element Author (MEA), and (3) references to any ound in Section 3.4.  ns for each MEA identified in the table below, such as "A— —Contractor."		Project Milestone 1			Project Milestone 2			Project Milestone 3			Project Milestone 4			Project Milestone 5			Project Milestone 6		Notes (See Sec 3.4)
Model Elements ut	ilizing OmniClass™	LOD	MEA	Notes	LOD	MEA	Notes													
21-05 10 60 70	Residential Ceiling Fans																			
21-05 10 70	Entertainment and Recreational Equipment																			
21-05 10 70 10	Theater and Stage Equipment																			
21-05 10 70 20	Musical Equipment																			
21-05 10 70 50	Athletic Equipment																			
21-05 10 70 60	Recreational Equipment																			
21-05 10 90	Other Equipment																			
21-05 10 90 10	Solid Waste Handling Equipment																			
21-05 10 90 30	Agricultural Equipment										7									
21-05 10 90 40	Horticultural Equipment																			
21-05 10 90 60	Decontamination Equipment																			
21-05 20	Furnishings																			
21-05 20 10	Fixed Furnishings																			
21-05 20 10 10	Fixed Art																			
21-05 20 10 20	Window Treatments																			
21-05 20 10 30	Casework																			
21-05 20 10 70	Fixed Multiple Seating																			
21-05 20 10 90	Other Fixed Furnishings	_																		
21-05 20 50	Movable Furnishings																			
21-05 20 50 10	Movable Art																			
21-05 20 50 30	Furniture																			
21-05 20 50 40	Accessories																			
21-05 20 50 60	Movable Multiple Seating																			
21-05 20 50 90	Other Movable Furnishings																			
21-06 00 00	SPECIAL CONSTRUCTION AND DEMOLITION																			
21-06 10	Special Construction																			
21-06 10 10	Integrated Construction																			
21-06 10 10 10	Building Modules																			
21-06 10 10 10	Manufactured/Fabricated Rooms																			
21-06 10 10 70	Modular Mezzanines																			
21-06 10 20	Special Structures																			
21-06 10 20 10	Fabric Structures																			
21-06 10 20 10	Space Frames															<del>                                     </del>	<del>                                     </del>			

milestone, (2) the applicable notes	OD required for each Model Element at each Project Model Element Author (MEA), and (3) references to any found in Section 3.4. Ons for each MEA identified in the table below, such as "A—		Project Milestone 1			Project Milestone 2			Project Milestone 3			Project Milestone 4			Project Milestone 5			Project Milestone 6		Notes (See Sec 3.4)
Model Elements u	itilizing OmniClass™	LOD	MEA	Notes																
21-06 10 20 30	Geodesic Structures																			
21-06 10 20 40	Manufacturer-Engineered Structures																			
21-06 10 20 60	Manufactured Canopies																			
21-06 10 20 65	Rammed Earth Construction										4									
21-06 10 20 70	Towers																			
21-06 10 30	Special Function Construction																			
21-06 10 30 10	Sound and Vibration Control																			
21-06 10 30 30	Seismic Control																			
21-06 10 30 50	Radiation Protection																			
21-06 10 50	Special Facility Components							4												
21-06 10 50 10	Pools																			
21-06 10 50 20	Interior Fountains																			
21-06 10 50 30	Interior Water Features																			
21-06 10 50 40	Aquariums																			
21-06 10 50 50	Amusement Park Structures and Equipment																			
21-06 10 50 60	Ice Rinks																			
21-06 10 50 70	Animal Containment																			
21-06 10 60	Athletic and Recreational Special Construction																			
21-06 10 60 10	Indoor Soccer Boards																			
21-06 10 60 20	Safety Netting																			
21-06 10 60 30	Arena Football Boards																			
21-06 10 60 40	Floor Sockets																			
21-06 10 60 50	Athletic and Recreational Court Walls																			
21-06 10 60 60	Demountable Athletic Surfaces																			
21-06 10 80	Special Instrumentation																			
21-06 10 80 10	Stress Instrumentation																			
21-06 10 80 20	Seismic Instrumentation																			
21-06 10 80 40	Meteorological Instrumentation																			
21-06 10 80 60	Earth Movement Monitoring																			
21-06 20	Facility Remediation																			
21-06 20 10	Hazardous Materials Remediation																			
21-06 20 10 10	Transportation and Disposal of Hazardous Materials																			
21-06 20 10 20	Asbestos Remediation																			

§ 3.3 Model Ele			Project Milestone 1			Project Milestone 2			Project Milestone 3			Project Milestone 4			Project Milestone 5			Project Milestone 6		
	OD required for each Model Element at each Project Model Element Author (MEA), and (3) references to any		es			esi		1												
	found in Section 3.4.		≣			≣			≣			≣	45		≣			≣		3.4)
Transit iii			ಭ			ij			ţ			ಕ್ಷ			t			ಭ		Notes (See Sec 3.4)
	ons for each MEA identified in the table below, such as "A—		Öje			оje			Ģ			Ģ			oje			Öje		ote:
Architect," or "C	—Contractor."																	P		<u> </u>
Model Elements ut	tilizing OmniClass™	LOD	MEA	Notes																
21-06 20 10 30	Lead Remediation																			
21-06 20 10 40	Polychlorinate Biphenyl Remediation																			
21-06 20 10 50	Mold Remediation																			
21-06 30	Demolition																			
21-06 30 10	Structure Demolition																			
21-06 30 10 10	Building Demolition																			
21-06 30 10 30	Tower Demolition																			
21-06 30 10 50	Bridge Demolition																			
21-06 30 10 70	Dam Demolition										7									
21-06 30 30	Selective Demolition							4												
21-06 30 30 10	Selective Building Demolition																			
21-06 30 30 30	Selective Interior Demolition																			
21-06 30 30 50	Selective Bridge Demolition																			
21-06 30 30 70	Selective Historic Demolition																			
21-06 30 50	Structure Moving			4																
21-06 30 50 10	Structure Relocation																			
21-06 30 50 30	Structure Raising																			
21-07 00 00	SITEWORK																			
21-07 10	Site Preparation																			
21-07 10 10	Site Clearing																			
21-07 10 10 10	Clearing and Grubbing																			
21-07 10 10 30	Tree and Shrub Removal and Trimming	_																		
21-07 10 10 50	Earth Stripping and Stockpiling																			
21-07 10 20	Site Elements Demolition																			
21-07 10 20 10	Utility Demolition																			
21-07 10 20 30	Infrastructure Demolition																			
21-07 10 20 50	Selective Site Demolition																			
21-07 10 30	Site Element Relocations																			
21-07 10 30 10	Utility Relocation																			
21-07 10 50	Site Remediation																			
21-07 10 50 10	Physical Decontamination																			
21-07 10 50 15	Chemical Decontamination																			
21-07 10 50 20	Thermal Decontamination																			

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Model Elements u	tilizing OmniClass™	LOD	MEA	Notes	LOD	MEA	Notes	LOD	MEA	Notes	LOD	MEA	Notes	LOD	MEA	Notes	LOD	MEA	Notes	
21-07 10 50 25	Biological Decontamination																			
21-07 10 50 30	Remediation Soil Stabilization																			
21-07 10 50 40	Site Containment												7							
21-07 10 50 45	Sinkhole Remediation																			
21-07 10 50 50	Hazardous Waste Drum Handling							7												
21-07 10 50 60	Contaminated Site Material Removal																			
21-07 10 50 80	Water Remediation									1										
21-07 10 70	Site Earthwork						_													
21-07 10 70 10	Grading																			
21-07 10 70 20	Excavation and Fill							$\overline{}$												
21-07 10 70 30	Embankments																			
21-07 10 70 35	Erosion and Sedimentation Controls																			
21-07 10 70 40	Soil Stabilization																			
21-07 10 70 45	Rock Stabilization																			
21-07 10 70 50	Soil Reinforcement			7																
21-07 10 70 55	Slope Protection																			
21-07 10 70 60	Gabions																			
21-07 10 70 65	Riprap																			
21-07 10 70 70	Wetlands																			
21-07 10 70 80	Earth Dams																			
21-07 10 70 90	Site Soil Treatment																			
21-07 20	Site Improvements																			
21-07 20 10	Roadways																			
21-07 20 10 10	Roadway Pavement																			
21-07 20 10 20	Roadway Curbs and Gutters																			
21-07 20 10 40	Roadway Appurtenances																			
21-07 20 10 70	Roadway Lighting																			
21-07 20 10 80	Vehicle Fare Collection																			
21-07 20 20	Parking Lots																			
21-07 20 20 10	Parking Lot Pavement																			
21-07 20 20 20	Parking Lot Curbs and Gutters																			
21-07 20 20 40	Parking Lot Appurtenances																			
21-07 20 20 70	Parking Lot Lighting																			

milestone, (2) the applicable notes j Insert abbreviation Architect," or "C	OD required for each Model Element at each Project Model Element Author (MEA), and (3) references to any found in Section 3.4.  Ons for each MEA identified in the table below, such as "A—C-Contractor."		Project Milestone 1			Project Milestone 2			Project Milestone 3			Project Milestone 4			Project Milestone 5			Project Milestone 6		Notes (See Sec 3.4)
Model Elements u	tilizing OmniClass™	LOD	MEA	Notes																
21-07 20 20 80	Exterior Parking Control Equipment																			
21-07 20 30	Pedestrian Plazas and Walkways																			
21-07 20 30 10	Pedestrian Pavement																			
21-07 20 30 20	Pedestrian Pavement Curbs and Gutters										4									
21-07 20 30 30	Exterior Steps and Ramps																			
21-07 20 30 40	Pedestrian Pavement Appurtenances																			
21-07 20 30 70	Plaza and Walkway Lighting																			
21-07 20 30 80	Exterior Pedestrian Control Equipment																			
21-07 20 40	Airfields																			
21-07 20 40 10	Aviation Pavement							4												
21-07 20 40 20	Aviation Pavement Curbs and Gutters																			
21-07 20 40 40	Aviation Pavement Appurtenances																			
21-07 20 40 70	Airfield Lighting																			
21-07 20 40 80	Airfield Signaling and Control Equipment																			
21-07 20 50	Athletic, Recreational, and Playfield Areas			4																
21-07 20 50 10	Athletic Areas																			
21-07 20 50 30	Recreational Areas																			
21-07 20 50 50	Playfield Areas																			
21-07 20 60	Site Development																			
21-07 20 60 10	Exterior Fountains																			
21-07 20 60 20	Fences and Gates																			
21-07 20 60 25	Site Furnishings																			
21-07 20 60 30	Exterior Signage																			
21-07 20 60 35	Flagpoles																			
21-07 20 60 40	Covers and Shelters																			
21-07 20 60 45	Exterior Gas Lighting																			
21-07 20 60 50	Site Equipment																			
21-07 20 60 60	Retaining Walls																			
21-07 20 60 70	Site Bridges																			
21-07 20 60 80	Site Screening Devices																			
21-07 20 60 85	Site Specialties																			
21-07 20 80	Landscaping																			
21-07 20 80 10	Planting Irrigation																			

milestone, (2) the applicable notes j Insert abbreviation Architect," or "C	OD required for each Model Element at each Project Model Element Author (MEA), and (3) references to any found in Section 3.4.  ons for each MEA identified in the table below, such as "A— —Contractor."		Project Milestone 1			Project Milestone 2			Project Milestone 3			Project Milestone 4			Project Milestone 5			Project Milestone 6		Notes (See Sec 3.4)
Model Elements u	tilizing OmniClass™	LOD	MEA	Notes	LOD	MEA	Notes	LOD	MEA	Notes										
21-07 20 80 20	Turf and Grasses																			
21-07 20 80 30	Plants												$\overline{}$							
21-07 20 80 50	Planting Accessories												_							
21-07 20 80 70	Landscape Lighting										4									
21-07 20 80 80	Landscaping Activities							7												
21-07 30	Liquid and Gas Site Utilities																			
21-07 30 10	Water Utilities									1										
21-07 30 10 10	Site Domestic Water Distribution																			
21-07 30 10 30	Site Fire Protection Water Distribution																			
21-07 30 10 50	Site Irrigation Water Distribution																			
21-07 30 20	Sanitary Sewerage Utilities																			
21-07 30 20 10	Sanitary Sewerage Utility Connection																			
21-07 30 20 20	Sanitary Sewerage Piping																			
21-07 30 20 40	Utility Septic Tanks																			
21-07 30 20 50	Sanitary Sewerage Structures																			
21-07 30 20 60	Sanitary Sewerage Lagoons																			
21-07 30 30	Storm Drainage Utilities																			
21-07 30 30 10	Storm Drainage Utility Connection																			
21-07 30 30 20	Storm Drainage Piping																			
21-07 30 30 30	Culverts																			
21-07 30 30 40	Site Storm Water Drains																			
21-07 30 30 50	Storm Drainage Pumps																			
21-07 30 30 60	Site Subdrainage																			
21-07 30 30 70	Storm Drainage Ponds and Reservoirs																			
21-07 30 50	Site Energy Distribution																			
21-07 30 50 10	Site Hydronic Heating Distribution																			
21-07 30 50 20	Site Steam Energy Distribution																			
21-07 30 50 40	Site Hydronic Cooling Distribution																			
21-07 30 60	Site Fuel Distribution																			
21-07 30 60 10	Site Gas Distribution																			
21-07 30 60 20	Site Fuel-Oil Distribution																			
21-07 30 60 30	Site Gasoline Distribution																			
21-07 30 60 40	Site Diesel Fuel Distribution																			

applicable notes found in Section 3.  Insert abbreviations for each MEA is Architect," or "C—Contractor."	uthor (MEA), and (3) references to any 4. identified in the table below, such as "A—		Project Milestone 1			Project Milestone 2			Project Milestone 3			Project Milestone 4			Project Milestone 5			Project Milestone 6		Notes (See Sec 3.4)
Model Elements utilizing OmniClass <sup>T</sup>	M	LOD	MEA	Notes																
	uel Distribution																			
	ite Utilities Supplementary Components																			
21-07 30 90 10 Supplementary	, ,																			
21-07 40 Electrical Site In	•																			
21-07 40 10 Site Electric Distri	3																			
21-07 40 10 10 Electrical Utility																				
	mission and Distribution																			
21-07 40 10 30 Electrical Subs																				
21-07 40 10 40 Electrical Trans																				
	chgear and Protection Devices																			
21-07 40 10 70 Site Grounding																				
	ibution System Instrumentation and Controls																			
21-07 40 50 Site Lighting																				
21-07 40 50 10 Area Lighting																				
21-07 40 50 20 Flood Lighting																				
21-07 40 50 50 Building Illumin																				
	ng Supplementary Components																			
21-07 50 Site Communica																				
21-07 50 10 Site Communicati																				
	cations Structures																			
	cations Distribution																			
21-07 50 10 50 Wireless Comr	munications Distribution																			
21-07 90 Miscellaneous S	Site Construction																		igsquare	
21-07 90 10 Tunnels																				
21-07 90 10 10 Vehicular Tunr	nels																			
21-07 90 10 20 Pedestrian Tur	nnels																			
21-07 90 10 40 Service Tunne	els																			
21-07 90 10 90 Tunnel Constru	uction Related Activities																		1 7	

# § 3.4 Model Element Table Notes

Notes:

(List by number shown on table.)