

PART 0 GENERAL

1.1 SUMMARY

A. Description:

1. This section specifies the standards

project, the updated drawings can be substituted for the original drawings.

- c. Equipment Information: (for list of expected equipment types, see Table 01 Required Equipment)

Note: Equipment Types are typical categories of assets with common characteristics and attributes that match equipment groups in the owner's operational systems. Effort has been made to align the information requested during construction to the format and content of the operational systems that will receive the information after turn over to operations. Table 01 is a master list of equipment (or asset) types that Operations require to the extent that this equipment is part of the final construction scope of work (new and renovation).

- i. Construction Start Data (Provided by Architect): equipment name (from plans), equipment location (room number), equipment description, asset type

1. ex: AHU1, M107, Air Handler, AHU

2. This is information that can be assembled from the initial set of construction documents. This is the first building block of the FM requirements that can be initiated prior to the development of submittals and their approvals.

- ii. Submittal Data:

1. General installer, manufacturer, model, approximate cost, expected life, warranty duration, associated approved submittal

a. ex: HVAC installers, Trane, C1000, \$125,000, 30 years, 5 years, 230010 Air Handlers.pdf

b. This information that will be added to the FM data once submittals are approved and specific equipment information has been determined.

2. Parent (Provided by Architect): Identify parent (upstream) component equipment as applicable and seen in Table 02 – Equipment Attributes.  
Parent / child

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- a. ELECTRICAL: This should indicate the electrical panel feeding power to the component (asset/ piece of equipment).
    - i. Example for AHU1, the electrical parent is Panel N1L1 (AHU1 is powered from Panel N1L1)
  - b. HVAC: This shall indicate the mechanical equipment connection to the component (asset/ piece of equipment)
    - i. Example for AHU1, the parent is "N/A"
    - ii. Example for VAV1, the parent is "AHU1"
3. Support Locations (Provided by Architect): Support locations are the spaces (room numbers) that are impacted by (or supported by) equipment. This information could be limited to one room or multiple rooms. This information aids the operation team after transition to operations by knowing what spaces are affected by equipment that needs to be isolated (shutdown) for various reasons.
4. Specific Attributes: For list of applicable attributes, see Table 02 r Equipment Attributes. Equipment attributes vary by equipment type (asset type).
  - a. Example filter size 18"x36"x2", filter type pleated, max CFM 150,000
  - b. Examples of possible attributes are:
    - i. voltage, amperage, horsepower, RPMs, GPMs, BTUs, heating & cooling capacity, filter type, filter size (oil, water, air)
    - ii. Attributes vary by equipment type and can be difficult to manage in XLS files alone. The tool that is available aids greatly in keeping this information organized and structured correctly. Further, the tool has been pre configured to match the requirements of this specification.
- iii. Install Data: serial number, barcode, nameplate photo, equipment photo
  1. Example: 1000453125023321\_AHU1nameplate.jpg AHU1.jpg
  2. This information can only be gathered once the equipment has been properly installed in the field. Photos should be taken of the equipment in the final installed condition (not in process condition).

- iv. CloseOut Data: associated commissioning report, associated D&M document, associated warranty document
  - 1. ex: CXAHU1.pdf, OM AHU1.pdf, Warranty AHUs.pdf
- d. Reference Documents:
  - i. Associated electronic files of referenced documents from 'equipment information'
  - ii.

duration of the construction effort and not to defer the effort until the final

affords the project team and the Owner the production of a consistent deliverable for transition to operations across a wide variety of projects and Contractors.

B. Submission & Review of facilities information

- a. The Contractor shall provide the completed data fields at the end of each major phase of construction as indicated in the schedule section above and per the related milestone dates.
- b. Data shall be submitted (made available) to owner at agreed upon milestone dates for review purposes. The owner will review data for accuracy with documents and field conditions by various means.
- c. Following review at various stages, the owner will provide the contractor with an issue report. Issue reports will contain any discovered deviations from field conditions or inaccuracies of facilities data. Any identified deviations from field conditions (issues) will require the contractor correct and resubmit the data within two (2) weeks of receiving the issue report.

C. Tools:

- a. The Contractor shall maintain the facilities management data within a data management tool, such as O&M Logger, and be approved by the owner's operation and maintenance organization. The facilities data tool shall be capable of validating that naming standards from this specification are followed during data collection. Also, the ~~SMR@D0411eD0~~









Table 02 Equipment Attributes

System	Asset Type	Attributes
ACCESS	LOCKBOX	location
ACCESS	LOCKBOX	assetnumber
ACCESS	SpecialAction Doors	DoorType
ALL	MANHOLE	GPScoordinate
ALL	METER	metertype
ALL	METER	remotereading
ALL	METER	readingranges
ALL	METER	temprange
ALL	METER	Instrumentationtagnumber
ALL	Tanks	capacity*
ALL	Tanks	tank volume
ALL	Tanks	maxsystemtemp
ALL	Tanks	maxsystempressure
ARCHITECTURAL	Cabinet	paintfinish
ARCHITECTURAL	Cabinet	color
ARCHITECTURAL	Cabinet	hardwaretype
ARCHITECTURAL	Cabinet	part number
ARCHITECTURAL	FixedPartitions	color
ARCHITECTURAL	Misc Architectural	anyassociatedfinishes
ARCHITECTURAL	OperablePartitions	color
CONVEYING		



System	Asset Type	Attributes
ELEC	MOTOR	efficiency
ELEC	MOTOR	drive line (horizontal,etc.)
ELEC	MOTOR	breakhorsepowerin bhp

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System	Asset Type	
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System	Asset Type	Attributes
HVAC	FCU	total capacity
HVAC	FCU	sensiblecapacity
HVAC	FCU	chilledwaterflow
HVAC	FCU	coolingcoildeltaP



<b>System</b>	<b>Asset Type</b>	<b>Attributes</b>
HVAC	Sensors	location in space
HVAC	Separators	capacity*
HVAC	Separators	tank volume
HVAC	Strainer	capacity*
HVAC	Strainer	tank volume
HVAC	Strainer	type
HVAC	Unit Heater	power*
HVAC	Unit Heater	electrical panel name*
HVAC	Unit Heater	capacity*
HVAC	Unit Heater	temp rise
HVAC	VFD	power*
HVAC	VFD	electrical panel name*
HVAC	VFD	minimum output frequency
HVAC	VFD	maximum output frequency
HVAC	Water	

System	Asset Type	Attributes
RESEARCH	Incubators	elecpanelname*

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Table 04 Reference Document Example

Note – the following directory format is for the electronic files that are part of the deliverable.



END OF SECTION