



Curtin University

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# PF&D ASSETS DATA MANAGEMENT PLAN ASSET PLANNING



## Acknowledgements

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## Revision History

Ver	Approved /Amended /Rescinded	Date	Committee /Board /Executive Manager	Approval /Resolution Number	Key Changes and Notes
1.0	-	04/12/2017	-	-	First draft
1.1	Amended	06/02/2018	-	-	Edits resulting from a final CU review
1.2	Amended	16/10/2018			Edits from CU Review

# Contents

<b>1. Purpose</b>	<b>3</b>
<b>2. Terms and Definitions</b>	<b>4</b>
<b>3. Data Management</b>	<b>5</b>
3.1. Data Lifecycle	5
3.2. Source Data	6
3.3. Data Ownership and Responsibility	6
<b>4. Data Documentation and Standards</b>	<b>7</b>
4.1. Supporting Information	7
4.2. Data Standards	7
4.3. Data Set Relationships	8
<b>5. Data Item Specifications</b>	<b>10</b>
<b>6. Data Quality</b>	<b>23</b>
<b>7. Data Storage and Security</b>	<b>24</b>

# 1. Purpose

The purpose of this data management plan is to provide a guideline for the collection and management of asset data that supports the asset planning process, described in the Strategic Asset Management Plan (SAMP), for managing the University property assets.

The objectives of this plan are:

- a) To outline how project data and associated materials will be managed, stored, documented and secured throughout the project as well as planning for what will happen to the data and materials after completion of each data collection project;
- b) To describe how data will be archived, accessed, shared or published, and disposed including any conditions or restrictions for sharing the data; and
- c) To provide descriptive details of the data, the processes, the decision-making process, managing, and reporting the data.

Key functions of this plan are to:

- Identify what data is to be collected and managed;
- Identify relevant standards of data;
- Identify data storage systems;
- Provide a description of the data; and
- Identify data storage hardware and software.

## 2. Terms and Definitions

Asset Data Record	Unique set of data related to an individual asset.
Cleansed Data	Raw data that has been assessed against the data standard and had non-conformances corrected. Non-conformances might include missing data, out of bounds data, logical errors, outlier data, missing data, bad formatting or any other non-conformance to the quality standard.
Database	Organised collection of data. In the context of this plan data stored in separate software, or separate structures in the same software, are referred to as separate databases.
Data	Set of values of qualitative and quantitative variables.
Data Element	Foundational unit of data that has a precise definition and meaning.
Data Field	Specific type of data applying to multiple records.
Data Set	Set of data fields applying to multiple records that have a common feature(s), management regime or administration and have been grouped together for administrative convenience.
Derived Data	Data that has been constructed from processed or raw data using a defined mathematical, logical, transformation, aggregation or composition method.
Multimedia File	Refers to a file of information attached to an asset record that is not data. Examples may include photographs, reports, certificates and similar.
Platform	Computer hardware system used to host software (e.g. Tablet, PC, Server, Cloud Server).
Raw Data	Primary source data, as obtained from survey, measurement or other means before it has been processed.
Software	Proprietary computer software or application (e.g. Excel, ARC GIS, Archibus).

## 3. Data Management

### 3.1. Data Lifecycle

Data for strategic asset management planning purposes is created and collected in phases that correspond to the general lifecycle of asset data:

Data Creation	Data creation typically refers to the development of the inventory data that forms part of the asset register and should be informed by clearly documented data specifications. The assets across the University have been identified and detailed inventory data created by either translating the as-constructed documentation or by field identification and measure of the assets;
Data Collection	Data collection refers to the data required for asset management planning purposes and should be informed by documented data specifications. This data is collected following asset acquisition (operations and maintenance phase) and generally provides the base data for analysis of asset condition and performance;
Data Analysis	Data analytics refers to the science of examining the raw data with the purpose of drawing conclusions about that information. This information directly informs the asset planning decision process; and
Data Maintenance	Data maintenance refers to the ongoing storage, updating, and reporting of data and applies to all phases.
Data Retention	The University is required to comply with the State Records Act 2000 (WA) and the University Records and Information Management Policy.

Asset data can exist in three distinct states depending upon the data type:

Static Data	Data that does not change over time (e.g. fixed inventory such as pavement formation);
Dynamic Data	Data that changes over time, however measured periodically (e.g. condition data); and
Real-time Data	Data that is being measured on a continuous basis and is dynamically changing (e.g. live traffic or average speed monitoring)

### 3.2. Source Data

To enable asset planning, asset related data is required from a range of data sources. The table below provides a summary of the data input sources and their related data collection methods, specific to the asset planning process:

**SAMP Source Data Summary:**

Purpose	SAMP Data Table (Refer Section 5)	Data Collection Method	Data Source
Facility Scope and Definition	Facility Data	A schedule of all existing facilities and its key attributes that describe and dimension each facility.	<ul style="list-style-type: none"> <li>• Archibus</li> </ul>
Facility Condition and Performance	Condition Data	Condition data at facility element and sub-element level collected in accordance with the PF&D Assets Assessment Framework and the related Condition Assessment Guidelines.	<ul style="list-style-type: none"> <li>• By inspection</li> </ul>
Facility Planning	Planning Gate 1 Facility Data	Facility planning data that determines the future sustainability of the existing facilities and the registration of new facilities. It also provides the basis for determining the need for potential projects.	<ul style="list-style-type: none"> <li>• Facility Data</li> <li>• Condition Data</li> <li>• Strategic Plan</li> </ul>
Project Planning	Planning Gate 2 and 3 Project Data	Project planning in the form of a Capital Plan, which presents a five-year time-frame.	<ul style="list-style-type: none"> <li>• Project Request Form</li> </ul>

### 3.3. Data Ownership and Responsibility

All data pertaining to this data management plan is owned by the University.

## 4. Data Documentation and Standards

### 4.1. Supporting Information

Documentation for understanding, maintaining or modifying asset data and related databases will be prepared and made available to the software team and project team (if required). This will include a technical document outlining the architecture of the system in addition to an Entity-Relationship-Model and Data Dictionary for the database, which will include relevant data definitions.

Each Data Class has a defined set of attributes or data items, where each attribute is defined by the metadata elements shown below. This ensures that each attribute is well understood and consistently interpreted.

### 4.2. Data Standards

A controlled vocabulary document will be maintained to represent the allowed values and assist in the understanding of terms used in the collection of asset data. Metadata must be recorded for all data items. The data class attributes and corresponding metadata elements are described below:

#### *Data Class Attributes*

Metadata Element Name	Definition
Data Item Code	A meaningful (lower case) name for the data item. Abbreviations are avoided but may be included when commonly known.
Archibus Code	The equivalent data item that corresponds (1:1) in Archibus.
CMMS Code	The equivalent data item that corresponds (1:1) in the CMMS.
Other Database / Code	A data base (other than Archibus or the CMMS) and its equivalent data item that corresponds (1:1).
Data Item Description	A short definition of the data item.
Data Source	Identification of the source of data.
Data Type	A classification identifying one of various types of data, such as alphanumeric, integer or Boolean.
Precision	Is the number of digits in a numerical value. For example, the number 123.45 has a precision of 5.
Scale	Scale is the number of digits to the right of the decimal point in a number. For example, the number 123.45 has a scale of 2.
Unit	Only where relevant, the unit of measure for the item, for example metres, centimetres, kilometres.
List of Values	A list of allowable values will be provided for data items where the item must be constrained to one of a set of values. E.g. the list of allowable condition rating scores. (i.e. allowable list of values).
Example	Sometimes it is useful to include some sample values.

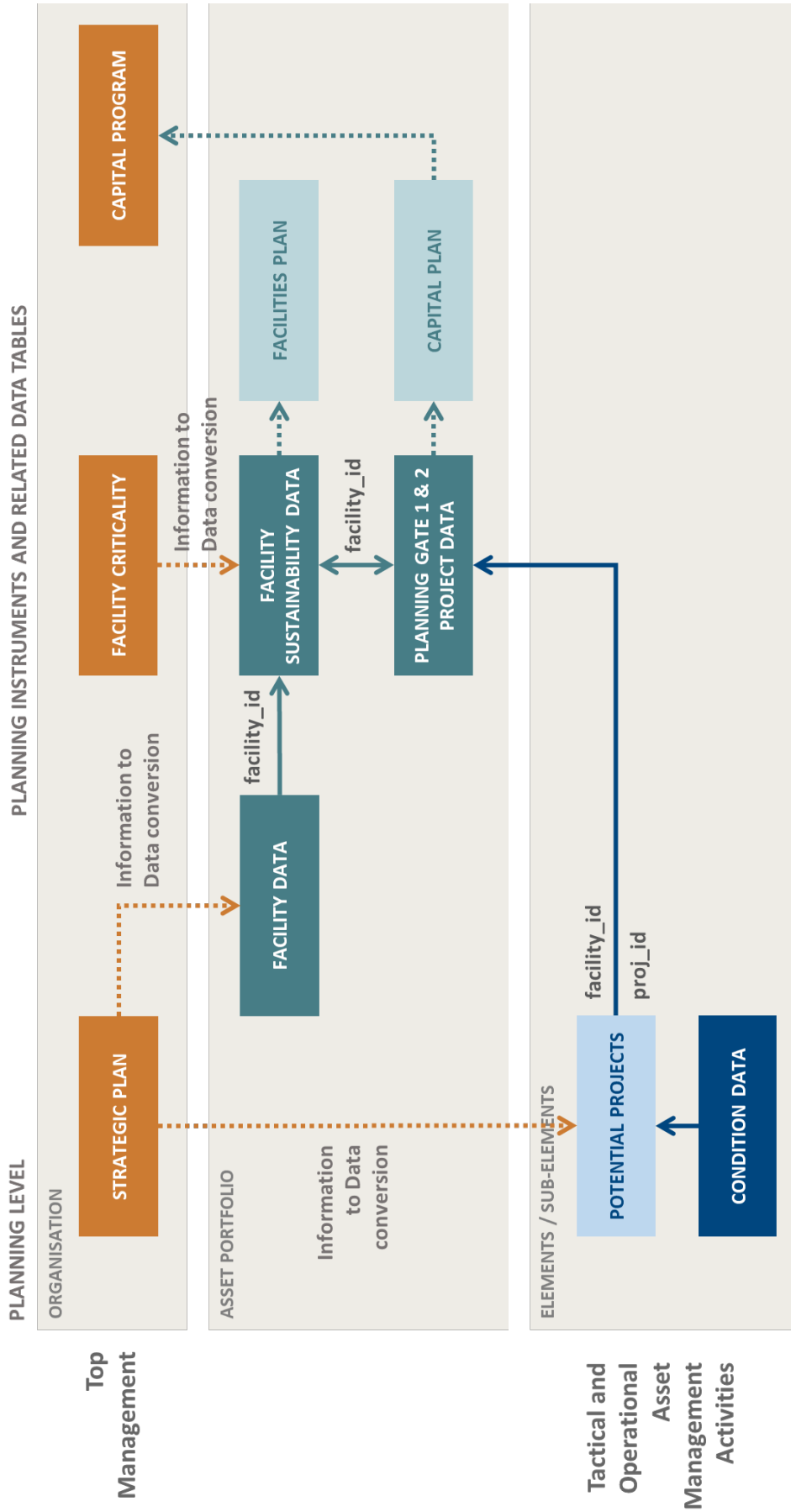


### Data Type Definition

Name	Short Code	Technical Specification	Definition
alphanumeric	AN(m)	varchar(m)	[a-z], [A-Z], [0-9], [-] Letter and digits where m is the maximum number of characters allowed. e.g. AN(4) could be 34AB but not 456ABC
alpha	A(m)	varchar(m)	[a-z],[A-Z],[ -] Alphabetical (letters only), where m is the maximum number of characters allowed. e.g. A (4) could be Fred but not Freda.
boolean	B	Boolean	Boolean has two defined values, typically True, False, expressed as Yes (Y) or No (N) in this Standard.
date	D	date	Format DD/MM/CCYY
date time	DT	datetime	Format DD/MM/CCYY:HH:MM:SS
decimal	DC(p,s)	number(p,s)	Fixed precision and scale numbers with precision (p) and scale (s). Precision is the maximum total number of decimal digits that will be stored, both to the left and to the right of the decimal point. It applies to numeric fields. Length is the maximum length of characters applied to non-numeric fields. Scale is the number of decimal digits that will be stored to the right of the decimal point. This number is subtracted from 'p' to determine the maximum number of digits to the left of the decimal point. e.g. Decimal(5,2) is 999.99 maximum.
integer	I	integer	Positive whole numbers only
money	Mo	number(12,2)	Dollars and cents
metres	M	number(8,2)	A numeric data type used when the units are always measured in metres.

### 4.3. Data Set Relationships

The relationship between the data tables are shown in the following diagram:



## 5. Data Item Specifications

The technical specifications for each data set and its data items are presented in the following tables:

**Facility Data Table**

Item	Data Item											
	Campus	Asset Group	Facility ID	Facility Name	Facility Latitude	Facility Longitude	Facility Use	Year Constructed	Number of Floors	GFA (sqm)	Facility Fabric	Photo Reference
<b>Data Item Code</b>	campus	group_id	fac_id	fac_name	fac_lat	fac_long	fac_use	fac_const	fac_flrs	fac_gfa	fac_fabric	fac_pic
<b>ARCHIBUS Code</b>	-	-	-	-	-	-	-	-	-	-	-	-
<b>CMMS Code</b>	-	-	-	-	-	-	-	-	-	-	-	-
<b>Other Database / Code</b>	-	-	-	-	-	-	-	-	-	-	-	-
<b>Data Item Description</b>	Campus Name	Asset group	Unique building or zone ID number	Recognised building or zone name	Geographic latitude	Geographic longitude	Primary space use	The date the facility was constructed	Number of levels in the facility	Gross Floor Area	Type of construction Structure/External Walls/Roof	Unique photo identifier
<b>Data Source</b>	from Asset Register	From Asset Register	from Asset Register	From Asset Register	From Asset Register	From Asset Register	From Asset Register	From Asset Register	From Asset Register	From Asset Register	From Asset Register	From inspector/asset register
<b>Data Type</b>	Varchar	Varchar	varchar	varchar	integer	integer	varchar	integer	integer	integer	varchar	varchar
<b>Precision</b>	20	20	10	50	15	15	200	4	2	6	50	50
<b>Scale</b>												
<b>Unit</b>								yr		sqm		
<b>List of Values</b>	N/A	Buildings, Buried Infrastructure, Public Places	8-character lookup table in ARCHIBUS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBA	N/A
<b>Example</b>	<i>Bentley</i>	<i>Buildings</i>	<i>A123</i>	<i>Rotary House Block B</i>	<i>-32.004633</i>	<i>115.895531</i>	<i>Offices, Laboratory Facilities and Design Spaces</i>	<i>1975</i>	<i>3</i>	<i>389.9</i>	<i>M/M/T</i>	<i>A123_23</i>

**Inspection Data Table**

Item	Data Item			
	Inspection ID	Data Record Creator	Date Record Created	Facility ID
<b>Data Item Code</b>	insp_id	Insp_pers	insp_date	fac_id
<b>ARCHIBUS Code</b>	-	-	-	-
<b>CMMS Code</b>	-	-	-	-
<b>Other Database / Code</b>	-	-	-	-
<b>Data Item Description</b>	Unique inspection identification number	Name of the inspecting officer and their organisation	Date the data was created	Unique building or zone ID number
<b>Data Source</b>	Supplied by Inspector	Supplied by Inspector	Supplied by Inspector	from Asset Register
<b>Data Type</b>	varchar	varchar	date	varchar
<b>Precision</b>	15	100	14	10
<b>Scale</b>				
<b>Unit</b>				
<b>List of Values</b>	N/A	N/A	N/A	8-character lookup table in ARCHIBUS
<b>Example A</b>	B308-171019	F Tuttle ABC Ltd	ddmmyyyy	A123

**Asset Condition Data (Effectiveness and Appearance) Table**

Item	Data Item											
	Asset	Collection Level	Floor Number	Room Number	Asset Present	Condition Type	Percent Condition Effectiveness CE1	Percent Condition Effectiveness CE2	Percent Condition Effectiveness CE3	Percent Condition Effectiveness CE4	Percent Condition Effectiveness CE5	
<b>Data Item Code</b>	asset_id	cond_level	floor_num	room_num	asset_exis	cond_type	cond_ce1	cond_ce2	cond_ce3	cond_ce4	cond_ce5	
<b>ARCHIBUS Code</b>	-	-	-	-	-	-	-	-	-	-	-	
<b>CMMS Code</b>	-	-	-	-	-	-	-	-	-	-	-	
<b>Other Database / Code</b>	-	-	-	-	-	-	-	-	-	-	-	
<b>Data Item Description</b>	asset data is collected against	level data collected at	Building level, for building, system and floor level ratings	Room/space number	Does asset exist	Effectiveness or Appearance ratings	The percentage of the asset at condition CE1	The percentage of the asset at condition CE2	The percentage of the asset at condition CE3	The percentage of the asset at condition CE4	The percentage of the asset at condition CE5	Continues on next page
<b>Data Source</b>	Supplied by inspector	Supplied by inspector	Supplied by inspector	Supplied by inspector	Supplied by inspector	Supplied by inspector	Supplied by inspector	Supplied by inspector	Supplied by inspector	Supplied by inspector	Supplied by inspector	
<b>Data Type</b>	varchar	Varchar	varchar	varchar	varchar	varchar	integer	integer	integer	integer	integer	
<b>Precision</b>	60	20	20	20	3	1	2	2	2	2	2	
<b>Scale</b>							0 to 100	0 to 100	0 to 100	0 to 100	0 to 100	
<b>Unit</b>							%	%	%	%	%	
<b>List of Values</b>	N/A	Facility, Floor, System, Room, Asset	N/A	N/A	Yes, No	A, E	N/A	N/A	N/A	N/A	N/A	
<b>Example</b>	<i>Roof</i>	<i>Building</i>	<i>1, 2, All</i>	<i>132</i>	<i>Yes</i>	<i>A</i>	<i>15</i>	<i>15</i>	<i>15</i>	<i>15</i>	<i>15</i>	

**Asset Condition Data (Effectiveness and Appearance) Table**

Item	Data Item										
	Percent Condition Appearance CA1	Percent Condition Appearance CA2	Percent Condition Appearance CA3	Percent Condition Appearance CA4	Percent Condition Appearance CA5	Notes	Remaining Life	Risk Rating	Work Scope	Estimated Cost	Photo Reference
<b>Data Item Code</b>	cond_ca1	cond_ca2	cond_ca3	cond_ca4	cond_ca5	cond_notes	asset_rl	asset_risk	asset_works	asset_cost	asset_pic
<b>ARCHIBUS Code</b>	-	-	-	-	-	-	-	-	-	-	-
<b>CMMS Code</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Other Database / Code</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Data Item Description</b>	The percentage of the asset at condition CA1	The percentage of the asset at condition CA2	The percentage of the asset at condition CA3	The percentage of the asset at condition CA4	The percentage of the asset at condition CA5	General notes	An estimate of the Remaining Life of the asset based on the knowledge and experience of the Inspector	An assessed risk category based the knowledge and experience of the Inspector	A short description of the works required	An estimated cost of the scoped works	Unique photo identifier
<b>Data Source</b>	Supplied by inspector	Supplied by inspector	Supplied by inspector	Supplied by inspector	Supplied by inspector	Supplied by inspector	Supplied by inspector	Supplied by inspector	Supplied by inspector	Supplied by inspector	From inspector
<b>Data Type</b>	integer	integer	integer	integer	integer	varchar	integer	integer	varchar	integer	varchar
<b>Precision</b>	2	2	2	2	2	200	2	1	200	10	50
<b>Scale</b>	0 to 100	0 to 100	0 to 100	0 to 100	0 to 100		0 to 5				
<b>Unit</b>	%	%	%	%	%		years			\$k	
<b>List of Values</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1, 2, 3, 4, 5	N/A	N/A	N/A
<b>Example A</b>	15	15	15	15	15	some staining to ceiling	9	1	Replace damage ceiling tiles	5.0	A123_23

**Functionality Data Table**

Item	Data Item					
	Floor Number	Room Number	Functionality Asset Comfort FCM Rating	Functionality Asset Amenity FAM Rating	Functionality Asset Appreciation FAP Rating	Overall Functionality Rating
<b>Data Item Code</b>	floor_num	room_num	func_fcm	func_fam	func_fap	func_space
<b>ARCHIBUS Code</b>	-	-	-	-	-	-
<b>CMMS Code</b>	-	-	-	-	-	-
<b>Other Database / Code</b>	-	-	-	-	-	-
<b>Data Item Description</b>	Building level, for building, system and floor level ratings	Room/space number	Rating for asset comfort	Rating for asset amenity	Rating for asset appreciation	Overall functionality rating based on FCM, FAM, and FAP
<b>Data Source</b>	Supplied by inspector	Supplied by inspector	User survey	User survey	User survey	FCM, FAM, and FAP ratings
<b>Data Type</b>	varchar	varchar	Integer	Integer	Integer	Integer
<b>Precision</b>	20	20	1	1	1	1
<b>Scale</b>			-	-	-	-
<b>Unit</b>			-	-	-	-
<b>List of Values</b>	N/A	N/A	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5
<b>Example</b>	1, 2, All	132	2	2	2	2



**Planning Gate 1 Facilities Plan Data Table**

Item	Data Item									
	Facility Id	Year Constructed	Condition Assessment Year	Facility Latitude	Facility Longitude	Facility Condition Effectiveness Rating	Facility Functionality Rating	Facility Fit for Purpose Rating	Facility Performance Rating	
<b>Data Item Code</b>	fac_id	fac_const	insp_date	fac_lat	fac_long	fac_cond	fac_func	fac_ffp	fac_perf	Continues on next page
<b>ARCHIBUS Code</b>	-	-	-	-	-	-	-	-	-	
<b>CMMS Code</b>	-	-	-	-	-	-	-	-	-	
<b>Other Database / Code</b>	-	-	-	-	-	-	-	-	-	
<b>Data Item Description</b>	Unique building or zone ID number	The date the building was constructed	Date the data was created	Geographic latitude	Geographic longitude	Overall facility condition (effectiveness) rating	Overall facility functionality (user) rating	Overall facility fit for purpose rating	Overall facility performance rating	
<b>Data Source</b>	From asset register	From Asset Register	Supplied by Inspector	From Asset Register	From Asset Register	From asset condition assessment	From functionality assessment	From a consensus assessment of the ability for the facility to support its intended purpose	Highest rating from condition, functionality, and fit for purpose	
<b>Data Type</b>	varchar	date	date	integer	integer	varchar	Varchar	Integer	Integer	
<b>Precision</b>	20	4	4	15	15	3	3	1	1	
<b>Scale</b>	-					-	-	-	-	
<b>Unit</b>	-	yr	Yr			-	-	-	-	
<b>List of Values</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,2,3,4,5	1,2,3,4,5	
<b>Example A</b>	B308	1975	2017	-32.004633	115.895531	2.4	3	2	2	

**Planning Gate 1 Facility Data Table**

Item	Data Item				
	10 Year Operations Forecast	10 Year Maintenance Forecast	10 Year Renewal Forecast	Total 10 Year Financial Liability Forecast	
Data Item Code	fac_cost_o	fac_cost_m	fac_cost_r	fac_cost_t	Continues on next page
ARCHIBUS Code	-	-	-	-	
CMMS Code	-	-	-	-	
Other Database / Code	-	-	-	-	
Data Item Description	10-year projected operations cost	10-year projected maintenance cost	10-year projected renewal costs	Sum of operations, maintenance and renewal costs	
Data Source	From finance system	From CMMS	From condition assessment	Calculated, sum of OMR costs	
Data Type	integer	integer	integer	integer	
Precision	3	3	3	3	
Scale	-	-	-	-	
Unit	\$m	\$m	\$m	\$m	
List of Values	N/A	N/A	N/A	N/A	
<i>Example A</i>	1	5	2	8	

**Planning Gate 1 Facilities Data Table**

Item	Data Item									
	10 Year Facilities Plan									
	Year 2018	Year 2019	Year 2020	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026	Year 2027
<b>Data Item Code</b>	fac_2018	fac_2019	Fac_2020	fac_2021	fac_2022	fac_2023	fac_2024	fac_2025	fac_2026	fac_2027
<b>ARCHIBUS Code</b>	-	-	-	-	-	-	-	-	-	-
<b>CMMS Code</b>	-	-	-	-	-	-	-	-	-	-
<b>Other Database / Code</b>	-	-	-	-	-	-	-	-	-	-
<b>Data Item Description</b>	Gate 1 review outcome	Gate 1 review outcome	Gate 1 review outcome	Gate 1 review outcome	Gate 1 review outcome	Gate 1 review outcome	Gate 1 review outcome	Gate 1 review outcome	Gate 1 review outcome	Gate 1 review outcome
<b>Data Source</b>	from Gate 1 review	from Gate 1 review	from Gate 1 review	from Gate 1 review	from Gate 1 review	from Gate 1 review	from Gate 1 review	from Gate 1 review	from Gate 1 review	from Gate 1 review
<b>Data Type</b>	varchar	varchar	varchar	varchar	varchar	varchar	varchar	varchar	varchar	varchar
<b>Precision</b>	10	10	10	10	10	10	10	10	10	10
<b>Scale</b>	-	-	-	-	-	-	-	-	-	-
<b>Unit</b>	-	-	-	-	-	-	-	-	-	-
<b>List of Values</b>	New, Retain, Dispose	New, Retain, Dispose	New, Retain, Dispose	New, Retain, Dispose	New, Retain, Dispose	New, Retain, Dispose	New, Retain, Dispose	New, Retain, Dispose	New, Retain, Dispose	New, Retain, Dispose
<b>Example A</b>	<i>Retain</i>	<i>Retain</i>	<i>Retain</i>	<i>Retain</i>	<i>Retain</i>	<i>Retain</i>	<i>Retain</i>	<i>Retain</i>	<i>Retain</i>	<i>Retain</i>

**Planning Gate 2 and 3 Project Data Table**

Item	Data Item								
	Campus	Facility Id	Year Constructed	Condition Assessment Year	Facility Latitude	Facility Longitude	Project Identification	Project Proposal Type	Capital Works Activity Type
<b>Data Item Code</b>	campus	fac_id	fac_const	insp_date	fac_lat	fac_long	proj_id	proj_type	proj_cat
<b>ARCHIBUS Code</b>	-	-	-	-	-	-	-	-	-
<b>CMMS Code</b>	-	-	-	-	-	-	-	-	-
<b>Other Database / Code</b>	-	-	-	-	-	-	-	-	-
<b>Data Item Description</b>	Campus Name	Unique building or zone ID number	The date the building was constructed	Date the data was created	Geographic latitude	Geographic longitude	Project identifier	Project type from Capital Projects Delivery Model	Physical works category
<b>Data Source</b>	from asset register	from asset register	From Asset Register	Supplied by Inspector	From Asset Register	From Asset Register	Refer protocol	from project proposal	from project proposal
<b>Data Type</b>	Varchar	Varchar	date	date	integer	integer	varchar	varchar	varchar
<b>Precision</b>	20	20	4	4	15	15	30	1	30
<b>Scale</b>	-	-	-	-	-	-	-	-	-
<b>Unit</b>	-	-	yr	Yr	-	-	-	-	-
<b>List of Values</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A, B, C, D	Replace, Refurbish, Renovate, Repurpose, Upgrade, New
<b>Example A</b>	<i>Bentley</i>	<i>B308</i>	<i>1975</i>	<i>2017</i>	<i>-32.004633</i>	<i>115.895531</i>		<i>B</i>	<i>New</i>

Continues on next page

**Planning Gate 2 and 3 Project Data Table**

Item	Data Item								
	Project Verification	Project Performance and Value	Project Risk and Opportunity	Project Capital Cost	5 Year Operations Cost Forecast	5 Year Maintenance Cost Forecast	Total 5 Year OM Cost	Project Investment Strategy	Notes
<b>Data Item Code</b>	proj_ver	Proj_val	proj_risk	proj_ccost	proj_ocost	proj_mcost	proj_cost	proj_flag	proj_notes
<b>ARCHIBUS Code</b>	-	-	-	-	-	-	-	-	-
<b>CMMS Code</b>	-	-	-	-	-	-	-	-	-
<b>Other Database / Code</b>	-	-	-	-	-	-	-	-	-
<b>Data Item Description</b>	Confirmation of project verification against the Facilities Plan	Performance and Value rating	Risk of deferring the works	Project capital works cost estimate	Five-year project additional projected operations cost estimate	Five-year project additional projected maintenance cost estimate	total five-year operations and maintenance cost estimate	Judgement call on initial project support	General notes
<b>Data Source</b>	References the Facilities Plan	Judgement decision	from project request form	from project request form	from project request form	from project request form	calculated	from review process	
<b>Data Type</b>	varchar	integer	integer	integer	integer	integer	integer	varchar	varchar
<b>Precision</b>	1	1	1	5	3	3	5	30	200
<b>Scale</b>	-	-	-	-	-	-	-	-	-
<b>Unit</b>	-	-	-	\$m	\$m	\$m	\$m	-	-
<b>List of Values</b>	Y, N	1, 2, 3, 4, 5	1, 2, 3, 4, 5	N/A	N/A	N/A	N/A	Do Nothing, Medium Priority, High Priority	N/A
<b>Example A</b>	Y	2	2	1	1	5	7	Medium Priority	N/A

Continues on next page

**Planning Gate 2 and 3 Project Data Table**

Item	5 Year Capital Plan (works description)					5 Year Capital Plan (funding request)				
	CPL 2018	CPL 2019	CPL 2020	CPL 2021	CPL 2022	CPL 2018	CPL 2019	CPL 2020	CPL 2021	CPL 2022
<b>Data Item Code</b>	cpl_2018_d	cpl_2019_d	cpl_2020_d	cpl_2021_d	cpl_2022_d	cpl_2018_f	cpl_2019_f	cpl_2020_f	cpl_2021_f	cpl-2022_f
<b>ARCHIBUS Code</b>	-	-	-	-	-	-	-	-	-	-
<b>CMMS Code</b>	-	-	-	-	-	-	-	-	-	-
<b>Other Database / Code</b>	-	-	-	-	-	-	-	-	-	-
<b>Data Item Description</b>	Works scope proposed for year 1	Works scope proposed for year 2	Works scope proposed for year 3	Works scope proposed for year 4	Works scope proposed for year 5	Funding request for year 1	Funding request for year 2	Funding request for year 3	Funding request for year 4	Funding request for year 5
<b>Data Source</b>	from review process	from review process	from review process	from review process	from review process	from review process	from review process	from review process	from review process	from review process
<b>Data Type</b>	varchar	varchar	varchar	varchar	varchar	integer	integer	integer	integer	integer
<b>Precision</b>	200	200	200	200	200	5	5	5	5	5
<b>Scale</b>	-	-	-	-	-	-	-	-	-	-
<b>Unit</b>	-	-	-	-	-	\$m	\$m	\$m	\$m	\$m
<b>List of Values</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Example A</b>	N/A	N/A	N/A	N/A	N/A	1	1.5	0	0	0

**Planning Gate 2 Project Data Table**

Item	5 Year Capital Program (works description)					5 Year Capital Program (approved funding)				
	CPR 2018	CPR 2019	CPR 2020	CPR 2021	CPR 2022	CPR 2018	CPR 2019	CPR 2020	CPR 2021	CPR 2022
<b>Data Item Code</b>	cpr_2018_d	cpr_2019_d	cpr_2020_d	cpr_2021_d	cpr_2022_d	cpr_2018_f	cpr_2019_f	cpr_2020_f	cpr_2021_f	cpr_2022_f
<b>ARCHIBUS Code</b>	-	-	-	-	-	-	-	-	-	-
<b>CMMS Code</b>	-	-	-	-	-	-	-	-	-	-
<b>Other Database / Code</b>	-	-	-	-	-	-	-	-	-	-
<b>Data Item Description</b>	Works scope approved for year 1	Works scope approved for year 2	Works scope approved for year 3	Works scope approved for year 4	Works scope approved for year 5	Funding approved for year 1	Funding approved for year 2	Funding approved for year 3	Funding approved for year 4	Funding approved for year 5
<b>Data Source</b>	from review process	from review process	from review process	from review process	from review process	from review process	from review process	from review process	from review process	from review process
<b>Data Type</b>	varchar	varchar	varchar	varchar	varchar	integer	integer	integer	integer	integer
<b>Precision</b>	200	200	200	200	200	5	5	5	5	5
<b>Scale</b>	-	-	-	-	-	-	-	-	-	-
<b>Unit</b>	-	-	-	-	-	\$m	\$m	\$m	\$m	\$m
<b>List of Values</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Example A</b>	N/A	N/A	N/A	N/A	N/A	1	1.5	0	0	0

## 6. Data Quality

Data will be collected in accordance with the existing University quality management system, and shall be regularly exposed to Validation and Peer-Review. It is expected that third parties collecting data, will provide a data quality plan outlining how they intend to ensure the validity, accuracy, completeness, consistency and reliability is achieved. The Project Manager, for each data collection project, conducts routine validation audits on all data submitted to the university. These audits will assess:

### Validity

To enforce data validity, all data items will be profiled to only accept valid entries. For numeric data items, only numeric values within a pre-defined acceptable input range can be entered. For string values, where possible a pre-defined list of acceptable inputs will be provided to the Assessor to select.

### Accuracy

Due to the nature of the data and requirements on automatic uploading, the software will not be able to determine accuracy, only validity. To maintain a high confidence in the accuracy of the data, the Contractor will implement a number of policies and procedures in order to adequately train all Assessors and routinely audit statistically significant proportions of data.

### Completeness

All form data will be continuously synced, where practical, to reduce the risk of data loss. Thus, there will be times where the data is not at a level of 100% completeness. However, when viewed at a form/assessment level, assessments will not be able to be marked complete unless all mandatory data items are collected and the data business rules have been satisfied for those data items.

### Consistency

Assessment and data collection consistency will be enforced through a series of policies and procedures that will involve the profiling and comparison of individual Assessors data to establish any discrepancies between different Assessors.

### Reliability

Data reliability is a resultant factor of the data dimensions.

### Timeliness

All assessment data will be captured as at a specific point in time. It will be entered directly into the hand-held device on-site by the Assessor, and as such, will not contain any timeliness issues. The data is automatically date and time stamped for record purposes.

### Organising Data

The data collection software has established rules for organising data on the university data server. Any files (e.g photos) will be named with a unique identifier and the database links that file with a record in the system (date, asset etc). This means that no useful information can be derived from the raw filename unless specifically exported from the application itself. Where specific filename convention are not specified a minimum filename convention of <Reportname>\_<yyyymmdd>.<ext>.



## 7. Data Storage and Security

Building Condition Reports will TEMPORARILY be stored in the Drawing Management System (DMS), with a 'check in and check out' process similar to drawings and maintenance manuals. This will not be the final repository for this data, but shall suffice for present need (with no consumption/update planned immediately).

Receipt of files to be issued to drawingservices@curtin.edu.au - or - on CD/thumbdrive, however a single deliverable approach to be used, not a combination of emails/thumbdrives. (Dropbox will not be acceptable).

Request of latest files (retrieved from DMS) to be via same email.

An online viewing tool shall be set up for PF&D staff (and internal Curtin staff only).

This will require:

- A singular project number (CSSL 10272) for storage and retrieval; and
- A file naming standard be applied to each document (discerning Campus and Building numbers of each report). Recommend: 01B109-CPCR0000.xlsx, where the building number is the only thing that changes between documents (unless Kalgoorlie/Perth etc. are included in project).
  1. 01 Campus (Bentley including Tech Park),
  2. B109 being the building number,
  3. (always a dash after building number)
  4. CP being 'Campus Planning' Discipline,
  5. CR being a 'Condition Report' Document Type, and
  6. Two zeros representing "whole building" review
  7. Two final zeros indicating that it is a MASTER file.

## NOTES

## NOTES

