

INNER WEST COUNCIL

Condition Assessment Report



August 2018





GLOSSARY

Asset Management Plan An AMP is a report that summarises the end outcomes of the asset

planning process. It documents the current and projected asset status and considers options to achieve strategic objectives through

using asset solutions.

Asset Register A record of asset information including some or all of; inventory,

historical, service, financial, condition, construction, technical and

financial information about each asset.

Base Life The physical life of a building component expected considering its

local environment. The life is measured from time of installation to

time of its anticipated replacement, renewal or disposal.

Capital Expenditure

(Capex)

Expenditure used to create new assets (through addition or renewal) or to increase the capacity of existing assets beyond their original design capacity or potential. Capex increases the value of

asset stock.

Component The specific asset at the lowest level of detail, i.e. solid door,

aluminium window, etc.

Component Group High level categorisation of a component, i.e. roof, floor coverings,

etc.

Component Type Mid-level categorisation of components that fit under Component

Group, i.e. roof drainage, lights, extinguishers, etc.

Component Criticality This is the measure of the relative importance of a building

component by identifying which components are more critical to the building. Criticality factors include; Likelihood of failure, risk to

service delivery, appearance, health and safety impacts.

Condition The state of an asset or component at a particular time.

Condition Assessment Periodic inspection, measurement and interpretation of the resultant

data of a specific component so as to determine the need for some preventative or remedial action. Condition is graded from condition

grades of 1 (excellent) to 6 (end of life).

Condition Grade Index

(CGI)

An overall condition rating of an asset that take into account each individual components assessed condition against its identified

Gross Replacement Cost (GRC). A CGI figure that is close to 1.0 represents an asset to be in a very good condition overall whilst a CGI of 2.3 means that some of the components have been assessed

to be in a poor to very poor condition.

Critical Assets Assets for which the financial, business or service level

consequences of failure are sufficiently severe to justify proactive inspection and rehabilitation. Critical assets have a lower threshold

for action than non-critical assets.

Capital Replacement

Value (CRV)

The cost to replace the structure, which is a combination of the Gross Replacement Cost and the Residual Structural Value. Cost is

expressed in today's (2018) dollar value.

Depreciated Replacement
The replacement cost of an existing asset less an allowance for wear



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Cost (DRC) or consumption having regard for the economic life of the existing

asset. Cost is expressed in today's (2018) dollar value.

Economic Life The total useful life of a building component based on its Level of

Service. The life is measured from time of installation to time of its $% \left(1\right) =\left(1\right) \left(1\right) \left($

expected replacement, renewal or disposal.

Facility Condition Index

(FCI)

Facility Condition Index (FCI) is a percentage figure, used as a building condition standard, that identifies the works required for an asset based upon the component currently in a poorer condition and

any component that have a remaining life of less than 5 years.

Gross Replacement Cost

(GRC)

The identified cost of the assessed assets and components that are to be replaced within the lifespan of the building structure. Cost value does not include the Residual Structural Value (RSV). Cost is

expressed in today's (2018) dollar value.

Key Performance A qualitative or quantitative measure of a service or activity used to Indicators (KPI) compare actual performance against a standard or other target.

compare actual performance against a standard or other target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset performance, reliability,

efficiency, environmental protection and customer satisfaction.

Level of Service The defined service quality for a particular activity or service area

against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness,

environmental acceptability and cost.

Lifecycle The cycle of activities that an asset (or facility) goes through while it

retains an identity as a particular asset i.e. from planning and

design to decommissioning or disposal.

Lifecycle Cost The total cost of an asset throughout its life including planning,

design, construction, acquisition, operation, maintenance, rehabilitation, and disposal costs. Cost is expressed in today's

(2018) dollar value.

Lifecycle Cost Analysis Any technique which allows assessment of a given solution, or

choice from among alternative solutions, on the basis of all relevant economic consequences over the service life of the asset. Cost is

expressed in today's (2018) dollar value.

Maintenance All actions necessary for retaining an asset as near as practicable to

its original condition, but excluding rehabilitation or renewal.

Operation The active process of using an asset or service that consumes

resources such as manpower, energy, chemicals and materials.

Operational Expenditure Operational expenditure refers to day-to-day operational costs

associated with the site itself to deliver the general services. This specifically refers to the; gas, water, sewerage, and electricity

services.

Planned Maintenance Planned maintenance activities fall into three categories: i) Periodic

- necessary to ensure the reliability or to sustain the design life of an asset. ii) Predictive - condition monitoring activities used to predict failure. iii) Preventative - maintenance that can be initiated





without routine or continuous checking and is not condition based.

Planned Scheduled Maintenance

Scheduled maintenance tasks are established to prolong the useful life of their associated assets. These related tasks can be daily, weekly, and monthly in occurrence to keep assets operational and at the required standard.

Property Quality Standard (PQS) A desired level of performance, measured by pre-defined factors, relating to an overall characteristic of a property portfolio.

Reactive Maintenance

Reactive maintenance tasks focus solely on the unknown maintenance that is required for the building and related infrastructure assets which are generally due to unforeseen breakages, damage, and vandalism.

Remaining Life (Assessed)

The remaining life (measured in number of years) of a building component as assessed by a property surveyor, e.g. carpet has an assessed remaining life of 10 years.

Remaining Life (Calculated)

Renewal

The remaining life (measured in number of years) of a building component as calculated by an analysis considering deterioration, functionality and utilisation.

Works to upgrade, refurbish or replace existing assets with assets of equivalent capacity or performance capability using Capex.

Repairs & Maintenance Budget The repairs and maintenance budget refers to the allocated expenditure that has been set aside for the unexpected/unforeseen maintenance and renewal works that may arise.

Replacement

The complete replacement of an asset that has reached the end of its life.

Residual Structural Value (RSV)

The difference between the CRC and the replacement cost sum of the assessed components (GRC). Refers to components that are not able to be replaced through lifespan of asset, i.e. concrete foundation slab, concrete support columns, etc. Cost is expressed in today's (2018) dollar value.

Risk Management

The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

Useful Life

Either:

- (a) the period over which an asset is expected to be available for use by an entity, or
- (b) the number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the council. It is the same as the economic life.





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1 **OVERVIEW**

1.1 Purpose

The purpose of this report is to provide Council with an overview of the recently conducted building condition & generalist compliance assessments, Hazardous Materials Inspections, and Valuations which were undertaken across 298 preselected building assets within Council's portfolio, and the resulting analysis & reporting outputs that have been produced.

This report will focus on a wide range of Council's building assets that includes; offices, operational buildings, depots, town halls, community halls, sporting grounds facilities, toilet blocks, aquatic facilities, nursery and childcare centres, and libraries.

1.2 Background

Inner West Council (Council) put out a tender in November 2017 seeking professional services for buildings condition assessments, hazardous materials investigations, and property valuations of building assets to contribute to planning for asset renewal, upgrade, and strategy.

SPM Assets Pty Ltd (SPM Assets) responded to Council's tender and was notified in last December 2017 of the successful bid.

SPM Assets commenced the 'Building Condition Survey, Maintenance Programs and Valuations' project in January 2018, in which SPM Assets' sub-contracted Prensa Pty Ltd (Prensa) and Scott Fullaton Valuations (SFV) to undertake the hazardous materials investigations and property valuations respectively. SPM Assets would undertake the building condition and generalist compliance assessments.

1.3 Requirements

For the building condition and generalist compliance assessments, Council requires an approach that is aligned with industry best practice & standards but will also support their internal requirements. These internal requirements are focused on the manner in which future maintenance or capital works are to be conducted, whilst ensuring that the asset information collected will support the any future decision making based upon building condition, functionality, and performance.

The approach proposed will utilise the SPM Assets software application's analysis and reporting capabilities to ensure that the appropriate information is gathered with the established level of details and accuracy.

Through the initial brief of the project the following requirements have been established:

- Asset component condition assessments on a pre-selected 298 building assets
- Further improve general site & building information
- Undertake generalist compliance assessments to identify where further compliance inspections/works may be required
- Defect investigations & recommendations
- Align asset information
- Produce a risk analysis of Council's building portfolio
- Produce a 10-year works programme that includes costings for the portfolio as a whole & down to an individual building asset



1.4 Assessment Methodology

The onsite assessments were completed using the Mobile capability of the SPM Assets application on a tablet device. The implemented assessment approach, and the SPM Assets software itself is directly aligned with ISO 55000, IIMM, NAMS Property Manual, and IPWEA/NAMS Practice Note #3.

The collected asset data from the onsite condition assessment have been uploaded into the SPM Assets application, from which it has been analysed and reported upon. The results gained are reflected within this report.

2 ASSET REGISTER

2.1 Overview

The Asset Register was compiled through the SPM Assets software application in parallel to the building asset condition & generalist compliance assessments being undertaken. These onsite assessments took place between January 2018 & April 2018, in which a total of 298 building assets were assessed.

The overall results from the assessment process can be seen summarised within Table 2-1 below.

Table 2-1 Property Information				
No. of Sites	115			
No. of Building Assets	298			
Building Floor Area (m2)	107,122			
Gross Replacement Cost (GRC)	\$ 107,909,753			
Capital Replacement Value (CRV)	\$ 369,792,000			

Further elaborating on the overall asset information within Table 2-1 above, Council's overall portfolio was seen to be in good condition overall, however there was a variation across the portfolio.

The assessed condition grading has been based upon the assessed building components that were captured within the assessment process, however the following points (outlined in further detail within this report) need to be recognised when considering the overall condition of the portfolio.

- > 7.1% (by value \$26,236,377) of the building Capital Replacement Value (CRV) was identified to be in a poorer condition.
- > 923 identified building-related defects/issues were captured.

2.2 Description of Visually-Assessed Components

Through the completed onsite building asset condition assessments, a total of 41,310 identified "renewable", "replaceable", and "maintainable" components have been captured. The Gross Replacement Cost (GRC) of the assessed components (the value of components that will be proactively renewed/replaced over the optimal lifespan of the asset) has been identified to be \$107,532,063.

The GRC differs from the CRV value as the GRC does not include the Residual Structure & other





components that were not assessed or could not be visually assessed, whereas the CRV includes all these elements.

Within Table 2-2 the GRC & CRV values against the building function.

5 77 5 - 11	No. of	Floor Area	No. of	GRC	CRV
Building Function	Buildings	(m2)	Components	(\$)	(\$)
Administration	4	14,668	5,308	17,767,563	69,043,000
Aquatic Centre	15	9,887	2,555	10,817,723	45,361,000
Café / Restaurant	7	772	553	1,138,521	3,396,000
Car Park	2	15,170	214	2,363,700	14,868,000
Caretaker	5	751	726	1,067,301	2,367,000
Childcare - Council Operated	18	7,193	5,364	11,279,883	18,079,000
Childcare - Leased Out	13	3,392	2,738	5,285,614	18,372,000
Community / Creative Space	6	950	800	1,228,899	4,696,000
Community Centre - Council Operated	17	5,750	3,246	6,662,385	29,063,000
Community Centre - Leased Out	40	16,542	7,269	18,822,580	54,922,000
Depot / Administration	6	5,716	1,606	5,079,009	17,934,000
Depot / Amenities	3	780	330	942,116	2,747,000
Depot / Operational	22	5,441	733	3,107,724	6,644,000
Libraries	7	8,029	2,582	6,646,221	34,131,000
Park / Amenities	34	4,592	3,160	5,985,789	16,385,000
Park / Grandstand	8	3,462	1,730	5,315,398	18,425,000
Park / Toilet	23	674	908	1,231,244	2,635,000
Park / Utilities	42	2,502	725	1,880,693	4,509,000
Public Amenities	3	58	133	114,605	476,000
Residential	4	333	419	460,559	3,910,000
Reuse	3	460	211	412,163	1,356,000
Total	298	107,122	41,310	\$ 107,609,689	\$ 369,319,000

2.3 Asset Register

The Asset Register has been compiled in parallel to the building asset condition assessments and valuations of the preselected 298 building assets.

The Property Surveyors will "identify", "quantify", and "assess" each visually-identified component at each building asset using the Mobile module of the SPM Assets application. The collected information is then overlaid with the valuation information to identify a breakdown in the condition for the predetermined five (5) component types.

Note: The visually-assessed condition of components is solely based upon the structural integrity



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of the component and does not take into account its aesthetics. This meaning that a component assessed to be in very good condition will not have its condition downgraded if it is seen to be 'out-of-style'.

Table 2-3 provides a breakdown of the CRV against each building function type, with the breakdown being produced through both the results of the condition assessment and the valuations undertaken. The overall condition profile for the portfolio can be seen within Figure 1.

To further analyse and review the component information for the portfolio, condition profiles have been created within Figure 1, based upon the component breakdown from the Valuations & condition assessments, for the following categories below:

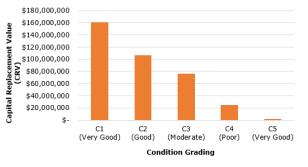
- Substructure
- Superstructure
- Finishes
- Fitout & Fittings
- Services

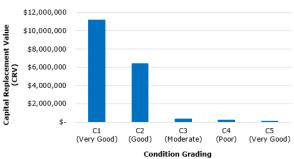
Table 2-3 Building Fun	Table 2-3 Building Function – Component Condition								
Building Function	C1	C2	СЗ	C4	C5	Total			
Building Function	(Very Good)	(Good)	(Moderate)	(Poor)	(Very Poor)	(\$)			
Administration	2,038,222	39,508,026	27,496,751	-	-	69,043,000			
Aquatic Centre	36,497,643	7,064,457	68,789	1,730,111	-	45,361,000			
Café / Restaurant	1,961,698	403,671	388,038	642,593	-	3,396,000			
Car Park	9,891,644	983,870	3,992,486	-	-	14,868,000			
Caretaker	896,163	835,915	150,323	242,881	241,718	2,367,000			
Childcare - Council Operated	18,707,415	3,157,158	1,671,011	503,416	-	24,039,000			
Childcare - Leased Out	4,919,078	3,018,812	3,039,875	1,434,235	-	12,412,000			
Community / Creative Space	578,055	1,758,896	787,173	1,063,077	508,799	4,696,000			
Community Centre - Council Operated	11,794,828	8,014,209	5,048,925	4,196,918	8,120	29,063,000			
Community Centre - Leased Out	22,444,520	12,922,419	10,064,947	9,577,114	-	55,009,000			
Depot / Administration	9,003,518	6,745,139	2,062,265	123,079	-	17,934,000			
Depot / Amenities	958,790	1,380,605	407,605	=	=	2,747,000			
Depot / Operational	1,635,652	1,290,586	2,863,294	586,098	268,369	6,644,000			
Libraries	21,316,922	3,602,629	9,211,449	-	-	34,131,000			
Park / Amenities	7,330,935	3,096,949	4,474,325	1,415,136	67,656	16,385,000			
Park / Grandstand	5,118,439	11,061,213	1,475,115	770,232	-	18,425,000			
Park / Toilet	826,921	466,640	952,790	388,649	-	2,635,000			
Park / Utilities	914,894	1,157,735	1,444,096	1,334,529	43,746	4,895,000			
Public Amenities	472,667	3,333	-	-	-	476,000			
Residential	3,910,000	-	-	-	-	3,910,000			
Reuse	-	-	266,099	460,862	629,039	1,356,000			

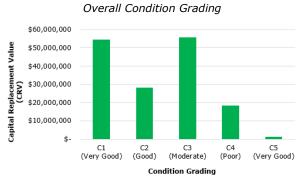


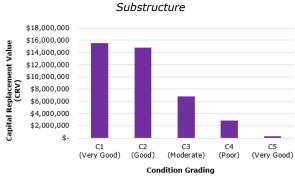
Table 2-3 Building Function – Component Condition								
Decilation Franchism	C1	C2	С3	C4	C5	Total		
Building Function	(Very Good)	(Good)	(Moderate)	(Poor)	(Very Poor)	(\$)		
Total	161,218,005	106,472,261	75,865,357	24,468,930	1,767,447	369,792,000		

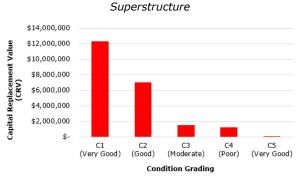
Table 2-4 Component Grouping – Condition								
Component Crown	C1	C2	С3	C4	C5	Total		
Component Group	(Very Good)	(Good)	(Moderate)	(Poor)	(Very Poor)	(\$)		
Substructure	11,197,782	6,418,989	368,023	241,269	105,221	18,331,284		
Superstructure	54,548,468	28,238,286	55,683,804	18,254,784	1,146,295	157,871,637		
Finishes	15,527,074	14,827,467	6,843,070	2,829,764	272,337	40,299,712		
Fitout & Fittings	12,323,463	6,995,671	1,473,481	1,208,563	34,153	22,035,331		
Services	67,621,217	49,991,847	11,496,978	1,934,550	209,441	131,254,033		
Total	161,218,004	106,472,260	75,865,356	24,468,930	1,767,447	369,791,997		

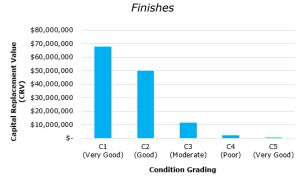












Services

Fitout & Fittings



Figure 1: Overall Condition Profile & Profile by Component Category

2.4 Condition Forecast

2.4.1 Condition Grade Index (CGI)

The Condition Grade Index (CGI) is calculated by considering the condition grade of assessed components weighted by the associated Gross Replacement Cost (GRC). A low CGI means that the assessed components are mainly in a good to very good condition whereas a high grade, such as 2.3, means that some of the components have been assessed to be in a poor to very poor condition. Although the Index provides a good measure at the time of survey, the condition grades will change over time as components deteriorate further and are replaced. Therefore, ongoing rolling survey assessments are needed to ensure an accurate reflection of the Index at the time of its consideration.

Through the condition assessment process, it has determined that the overall condition or structural integrity of the assessed room/function locations can be described as good, in which there is a large percentage of components noted to be in a very good and good condition. A breakdown of the CGI ratings for the different building categories can be seen within Table 2-5 below.

Table 2-5 Building Category - Condition Grade Index							
Building Catagony	CDV	CCI	Poorer Condition Components				
Building Category CRV CGI		CGI	Value	%			
Administration	69,043,000	1.77	-	-			
Aquatic Centre	45,361,000	1.55	1,730,111	3.8%			
Café / Restaurant	3,396,000	2.01	642,593	18.9%			
Car Park	14,868,000	1.47	-	-			
Caretaker	2,367,000	1.98	484,599	20.5%			
Childcare - Council Operated	24,039,000	1.48	503,416	2.1%			
Childcare - Leased Out	12,412,000	1.36	1,434,235	11.6%			
Community / Creative Space	4,696,000	2.07	1,571,876	33.5%			
Community Centre - Council Operated	29,063,000	1.59	4,205,038	14.5%			
Community Centre - Leased Out	55,009,000	1.65	9,577,114	17.4%			
Depot / Administration	17,934,000	1.62	123,079	0.7%			
Depot / Amenities	2,747,000	1.66	-	-			
Depot / Operational	6,644,000	2.04	854,467	12.9%			
Libraries	34,131,000	1.61	-	-			
Park / Amenities	16,385,000	1.69	1,482,791	9.0%			
Park / Grandstand	18,425,000	1.60	770,232	4.2%			
Park / Toilet	2,635,000	1.78	388,649	14.7%			
Park / Utilities	4,895,000	2.15	1,378,275	28.2%			
Public Amenities	476,000	1.15	-	-			



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Table 2-5 Building Category - Condition Grade Index							
Building Category	CRV	CGI	Poorer Condition Components				
Building Category	CRV	CGI	Value	%			
Residential	3,910,000	1.00	-	-			
Reuse	1,356,000	3.05	1,089,901	80.4%			
Grand Total	\$ 369,792,000	1.65	\$ 26,236,377	7.1%			



3 FUNCTIONALITY & PERFORMANCE ASSESSMENTS

3.1 Overview

The Property Quality Standard (PQS) process, described in IPWEA/NAMS Practice Note 3 has been used for assessing the level of service and quality of buildings. Adopting the PQS mechanism enables the measurement of 'level of service' statements and identification of backlogs. Future scoped projects would address these backlogs and as such, the PQS mechanism will provide a way to prioritise works. Each PQS question has an 'answer definition' that allows the surveyor to determine the level of service, which will in turn produce a cost if the question fails the standard. This means that the Council can vary the standards so that the cost to achieve a desired standard can easily be modelled.

This section focus the result of the building groups that are classified as medium high to high importance based on its function. Further review of the individual building function and its important factors will be conduct through a workshop session relevant Council staff for accurate assignment of the building important rating.

3.2 PQS Assessment Process

The Property Quality Standard (PQS) assessment process consists of numerous questions, answered in the field by the building assessors, which are aimed at identifying the current Level of Service (LoS) that a building asset provides.

These PQS statements were tailored for each of the various building categories, acknowledging that each category has different characteristics, in which the overall results of the PQS assessment process can be viewed within the produced report, 'Summary of PQS Assessment Report'.

3.3 PQS Shortfalls

All 282 building assets that were assessed as part of this project underwent PQS assessment. Statements that were seen to not meet their expected levels, based upon the statement criteria itself, are classified as PQS shortfalls.

PQS shortfalls identify potential deficiencies of the building asset in relation to its expected standard, from which the PQS shortfalls can be transformed into a works program of upgrades to the building assets to ensure that they are aligned with Council's expectations and are 'fit for the future'.

Table 3-1 provides a breakdown of the recommended works and associated estimated costs for addressing the PQS shortfalls associated with the different building assets and categories.

Note: The estimated costs associated with the PQS shortfalls have been determined based upon a generalist assessment. These generalist assessments do not constitute for specialist assessments, from which Council should engage a specialist BCA/DDA assessor.





	PQS CATEGORY						
Building Function	Accessibility	Fire Systems	Functionality	General Compliance	Safety & Security	Toilet	Est. Cost (\$)
Administration	-	400	-	152,750	-	8,500	161,650
Aquatic Centre	-	-	28,000	86,000	45,450	5,000	164,450
Café / Restaurant	36,000	9,250	-	138,750	900	15,650	200,550
Car Park	-	-	-	-	-	-	
Caretaker	24,000	950	4,000	116,750	7,650	20,000	173,350
Childcare - Council Operated	47,500	150	16,000	284,250	15,300	86,575	449,775
Childcare - Leased Out	32,000	-	12,000	260,750	15,300	58,950	379,000
Community / Creative Space	10,500	9,500	-	52,750	15,300	17,500	105,550
Community Centre - Council Operated	18,000	8,150	12,000	291,500	18,700	26,850	375,200
Community Centre - Leased Out	84,500	15,550	32,000	553,750	34,300	90,775	810,875
Depot / Administration	38,500	3,050	12,000	234,500	450	17,000	305,500
Depot / Amenities	3,000	800	8,000	17,000	-	5,150	33,950
Depot / Operational	27,000	3,500	-	110,250	15,900	13,650	170,300
Libraries	5,000	850	12,000	361,250	20,600	13,650	413,350
Park / Amenities	14,000	150	-	130,500	7,500	41,375	193,52
Park / Grandstand	-	8,700	4,000	83,000	-	15,000	110,700
Park / Toilet	1,500	400	8,000	44,000	7,500	15,725	77,12
Park / Utilities	3,000	27,500	16,000	88,250	7,650	5,000	147,400
Public Amenities	-	-	-	1,500	-	5,000	6,500
Residential	-	-	-	4,500	7,500	-	12,000
Reuse	21,000	3,700	4,000	46,250	15,150	8,650	98,750
Total	\$ 365,500	\$ 92,600	\$ 168,000	\$ 3,058,250	\$ 235,150	\$ 4,470,000	\$ 4,389,500



4 STANDARDS & SHORTFALLS

4.1 Property Quality Standards

As part of determining the overall requirements of the Council's building portfolio moving forward, a structured review of the condition & generalist compliance assessment results against the established Quality Standard will help determine the priority and criticality of works that are to take place into the future.

At this point in time, Council has applied an initial importance ranking to each of their building assets within the portfolio. This ranking has provided an initial works prioritisation level moving forward for Council and the portfolio.

In terms of an asset Quality Standard, Council has adopted a stance that no component should be in a poorer condition (C4/C5 condition) at any point in time. This meaning that components will be proactively "renewed", "replaced", "maintained" to ensure that they are never in or reach a poorer condition state.

As an improvement activity, Council should review the collected information and further establish Quality Standards for each building asset within the portfolio that aligns with both Council's and the community's expectation, but also with Council's budgets.

4.1.1 Setting a Quality Standard

When reviewing an individual building asset, or Council's portfolio as a whole, it would be ideal moving forward that a Quality Standard is applied to each building asset within the portfolio.

Listed within the two sections below, it states the current applied Quality Standard for Council's building assets against a further potential Quality Standard.

Building-Level Quality Standard. As an overarching Quality Standard against all building assets, the following items have been identified as part of the building-level Quality Standard.

- No components are to ever be in a poorer condition (C4 or C5 condition grade).
- Any OHS issue is to be addressed/rectified as soon as possible.
- All defects are to undergo review and subsequently addressed as prioritised.

Further Potential Building-Level Quality Standard. Taking the current building-level Quality Standard a step further would be an improvement activity for Council when refining their Asset management strategies and policies.

This step further would involve building categorisation of each building asset and setting a defined condition/performance standard for each of these categorisations. This would ultimately ensure that each asset category would have a standard applicable to its operations whilst the standard would also ensure that each asset within a category was performing to the correct level required.

Within the table below is a proposed or potential standardisation of the Quality Standard for different categories of assets. Council would need to review this categorisation and then further enhance it to be aligned with their view and expectations.

Table 4-1 Q	Table 4-1 Quality Standard Definitions						
Standard	Function Type	Definitions					



Table 4-1 Quality Standard Definitions						
Standard	Function Type	Definitions				
		Condition Grade Index (CGI) < 1.7, Maintenance > 0.5%				
	Heritage	All components are to be in either a good or very good condition.				
Α	Local Significance	No defects to be present at any time.				
		No backlog of works is to be present at any time.				
		Planned cyclical maintenance (mandatory & preventative) to be undertaken.				
	Childcare Facilities	Condition Grade Index (CGI) < 1.9, Maintenance > 0.4%				
	Libraries	All components are to be in either a good or moderate condition.				
В	Administration Buildings Public Halls Community Centres	No defects to be present at any time.				
		No backlog of works to be present at any time.				
		Planned cyclical maintenance (mandatory & preventative) to be undertaken.				
		Condition Grade Index (CGI) < 2.2, Maintenance > 0.3%				
	Toilet Blocks	All components are to be in either a good or moderate condition.				
С	Park Amenity Buildings Park Club Houses	Non-critical defects are allowed to be present and should only be addressed in upcoming scheduled works.				
		Planned cyclical maintenance (mandatory & preventative) to be undertaken.				
		Condition Grade Index (CGI) < 2.5, Maintenance > 0.2%				
	Depot Buildings Storage	All components are to be maintained to a moderate standard, however non-critical components are allowed to reach a poorer condition (if it does not have implications with the performance of the room/function area).				
D		Non-critical defects are allowed to be present and should only be addressed where deemed required.				
		Planned mandatory cyclical maintenance should be undertaken, whilst any preventative maintenance should be reviewed and agreed upon based upon nature of asset.				

5 RENEWAL FORECASTS

5.1 Determining Backlog

A position of backlog refers to potential works (i.e. component-based, defect/issues) that have been identified to have required completion prior to this date based upon their current state and the adopted Quality Standard.

Based upon the previously adopted Quality Standard and the results from the condition assessments & valuations, the following backlog position is outlined below:

- Valuation components seen to be in a poorer condition state (C4 & C5 condition).
- Visually-identified defects/issues relating to the building assets and/or their associated components identified through the condition assessment process.

5.1.1 Condition-Based Position of Backlog

Valuation components that have been identified to be in a poorer condition (i.e. in a C4/C5 condition) are seen to sit within a position of backlog due to the adopted Quality Standard. This



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Quality Standard adopted by Council is aligned with Special Schedule #7 reporting, whilst also is a risk-based approach as components in a poorer condition will typically have an increased probability of failure.

Table 5-1 provides a breakdown of the current backlog position, by component value, of all components that have been assessed to either be partially or completely in a poorer condition against their associated building types.

Table 5-1 Valuation Components in Poorer Condition							
Building Function	No. Buildings	CRV	Cost (C4 / C5)	% (C4/C5 Cost) / CRV			
Administration	4	69,043,000	-	0.0%			
Aquatic Centre	15	45,361,000	1,730,111	3.8%			
Café / Restaurant	7	3,396,000	642,593	18.9%			
Car Park	2	14,868,000	-	0.0%			
Caretaker	5	2,367,000	484,599	20.5%			
Childcare - Council Operated	18	24,039,000	503,416	2.1%			
Childcare - Leased Out	13	12,412,000	1,434,235	11.6%			
Community / Creative Space	6	4,696,000	1,571,876	33.5%			
Community Centre - Council Operated	17	29,063,000	4,205,038	14.5%			
Community Centre - Leased Out	40	55,009,000	9,577,114	17.4%			
Depot / Administration	6	17,934,000	123,079	0.7%			
Depot / Amenities	3	2,747,000	-	0.0%			
Depot / Operational	22	6,644,000	854,467	12.9%			
Libraries	7	34,131,000	-	0.0%			
Park / Amenities	34	16,385,000	1,482,791	9.0%			
Park / Grandstand	8	18,425,000	770,232	4.2%			
Park / Toilet	23	2,635,000	388,649	14.7%			
Park / Utilities	42	4,895,000	1,378,275	28.2%			
Public Amenities	3	476,000	-	0.0%			
Residential	4	3,910,000	-	0.0%			
Reuse	3	1,356,000	1,089,901	80.4%			
Total	298	\$ 369,792,000	\$ 26,236,377	7.1%			

Further to the information within the table above, a ranked listing of the top 10 properties seen to be in a poorer condition has been stated within the table below.

The reason these properties make the list are due to their overall Condition Grade Index (CGI) value and percentage of poorer condition valuation components in relation to the overall value of building itself. A review of these building assets should be undertaken prior to any further works being undertaken.

Table 5-2 Top 10 Poorer Valuation Condition Building Assets								
Building Code	" Ruilding Name CRV CGT C4&C5 (C4&C5)/CRV							
BD219	Leichhardt Park Caretakers Cottage	267,000	3.64	267,000	100%			



Table 5-2 Top 10 Poorer Valuation Condition Building Assets								
Building Code	Building Name	CRV	CGI	C4&C5	(C4&C5)/CRV			
BD002	Residential 290-292 Illawarra RdMarrickville	453,000	3.44	453,000	100%			
BD907	Birchgrove Park Pavilion/Referees Room	82,000	3.61	82,000	100%			
BD903	Dawn Fraser Baths - Southern Pavilion	906,000	3.14	906,000	100%			
BD176	Hoskins Park Toilets	106,000	2.74	106,000	100%			
BD061	Balmain West Wharf Kiosk	629,000	3.43	629,000	100%			
BD171	Toilet on Hill Male	63,000	2.45	59,843	95%			
BD151	Gladstone Park Toilet Block	90,000	2.32	82,762	92%			
BD327	Richard Murden Reserve Canteen	47,000	2.62	43,173	92%			
BD229	LPAC Staff room	720,000	2.65	655,158	91%			

5.1.2 Identified Defects/Issues

As part of the onsite building condition and generalist compliance assessment process, the building surveyors captured the visually-identified defects/issues associated with each building asset. The defects/issues are separately identified from the condition of a component due to rectification works being able to be completed rather than a complete renewal work for the associated component.

Table 5-3 below provides a breakdown of the visually-identified defects/issues against the associated building type and the component costs for the building assets.

Table 5-3 Component Defects									
Building Function	No. Buildings	CRV	No. of Defects	Est. Defect Cost	% Defects Cost/GRC				
Administration	4	69,043,000	63	23,893	0.03%				
Aquatic Centre	15	45,361,000	124	55,930	0.12%				
Café / Restaurant	7	3,396,000	4	1,279	0.04%				
Car Park	2	14,868,000	10	9,796	0.07%				
Caretaker	5	2,367,000	24	4,666	0.20%				
Childcare - Council Operated	18	24,039,000	68	24,171	0.10%				
Childcare - Leased Out	13	12,412,000	73	32,878	0.26%				
Community / Creative Space	6	4,696,000	11	7,578	0.16%				
Community Centre - Council Operated	17	29,063,000	54	10,141	0.03%				
Community Centre - Leased Out	40	55,009,000	161	56,660	0.10%				
Depot / Administration	6	17,934,000	55	17,920	0.10%				
Depot / Amenities	3	2,747,000	24	12,611	0.46%				
Depot / Operational	22	6,644,000	14	6,529	0.10%				
Libraries	7	34,131,000	148	60,235	0.18%				
Park / Amenities	34	16,385,000	84	23,554	0.14%				
Park / Grandstand	8	18,425,000	30	7,902	0.04%				



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Table 5-3 Component Defects								
Building Function	No. Buildings	CRV	No. of Defects	Est. Defect Cost	% Defects Cost/GRC			
Park / Toilet	23	2,635,000	20	7,102	0.27%			
Park / Utilities	42	4,895,000	25	11,514	0.24%			
Public Amenities	3	476,000	1	136	0.03%			
Residential	4	3,910,000	-	-	-			
Reuse	3	1,356,000	9	4,806	0.35%			
Total	298	\$ 369,792,000	1,002	\$ 379,301	0.10%			

Note: These identified defects have been provided to Council following the completion of the assessments (critical defects were provided to Council at the time of capture), from which Council will review and take action accordingly.



5.2 10 Years Works Program

The 10 Years Works Program has been constructed based around the works required at each building asset based upon the building asset condition assessment process and maintaining the established Quality Standard. Each project within the program involves the grouping of works into a project of work that will be completed at one point in time for each building asset.

Note:

- Program includes projects already scoped by Council
- > Project management (15%) and contingency (10%) costs has been added to each project
- Projects include component renewals and addressing PQS shortfalls
- > Defects/issues are not included within project costs

Table 5-4 Summary of 10 Year Wor	Table 5-4 Summary of 10 Year Works Program										
Expenditure	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
Administration	-	59,000	355,000	3,120,782	-	1,862,673	-	-	228,461	-	5,625,916
Aquatic Centre	-	61,615	-	85,000	-	-	-	185,563	-	3,171,614	3,503,793
Café / Restaurant	-	245,162	199,128	-	88,710	-	-	-	74,151	-	607,151
Car Park	-	-	-	-	-	-	316,004	-	-	-	316,004
Caretaker	125,000	68,000	400,000	-	-	206,829	-	-	-	241,469	1,041,299
Childcare - Council Operated	679,043	-	15,592	765,938	796,384	396,252	347,080	422,057	-	1,123,520	4,545,866
Childcare - Leased Out	-	61,319	913,423	330,880	389,548	280,422	-	516,930	45,822	172,058	2,710,401
Community / Creative Space	180,000	100,000	55,000	-	-	231,669	102,272	-	-	-	668,941
Community Centre -Council Operated	1,685,015	303,350	200,000	-	-	188,451	160,965	-	-	91,843	2,629,624
Community Centre - Leased Out	565,000	652,441	260,915	480,430	3,496,719	516,814	2,308,862	1,673,189	1,249,197	400,310	11,603,876
Depot / Administration	-	-	-	570,000	-	-	380,865	965,890	1,805,772	-	3,722,527
Depot / Amenities	-	-	-	-	-	-	318,269	228,398	-	-	546,668
Depot / Operational	-	-	325,649	46,905	-	-	829,664	943,095	127,011	-	2,272,323
Libraries	1,595,000	2,628,000	1,660,000	-	-	-	-	-	1,872,584	64,282	7,819,865



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Table 5-4 Summary of 10 Year Works Program											
Expenditure	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
Park / Amenities	-	202,818	334,405	33,544	683,309	572,835	397,287	180,575	-	136,824	2,541,597
Park / Grandstand	700,000	338,972	237,519	-	-	1,020,364	466,572	-	-	-	2,763,427
Park / Toilet	-	338,650	68,313	-	-	84,347	49,189	104,398	-	49,642	694,539
Park / Utilities	-	47,216	562,314	-	221,778	189,788	20,871	223,621	-	-	1,265,588
Public Amenities	-	-	-	-	-	-	-	-	-	-	-
Residential	-	-	-	-	-	-	-	-	-	-	-
Reuse	-	468,975	-	-	-	-	-	50,601	-	-	519,576
Total	5,529,058	5,575,518	5,587,258	5,433,478	5,676,448	5,550,444	5,697,899	5,494,316	5,402,997	5,451,562	55,398,979

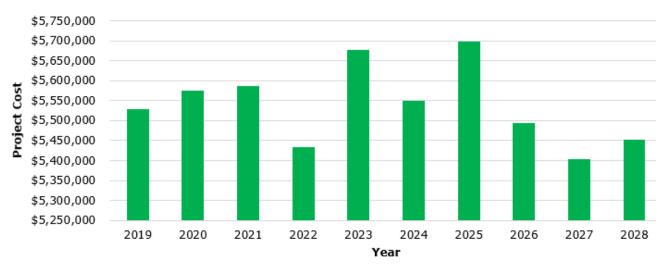


Figure 2: 10 Year Works Program

Note: The detailed 10 years works program has been provided to Council within separate documentation. This document should be reviewed further for a breakdown of the works program to each building asset.



6 RISK MANAGEMENT

The following section on Risk Management solely considers the individual 'renewable', 'replaceable', and 'maintainable' components that were collected through the building asset condition assessments undertaken by SPM Assets.

No allowance within this section considers the condition breakdown of the Valuations, as per previous sections of this report.

6.1 Principles

The Standard AS/NZS ISO 31000: 2009 has been referred to in establishing a Risk Matrix as a way to determine risk associated with the building portfolio. Risks can include financial, environmental, social, operational and health and safety considerations. Typical risks relevant to Council's buildings are:

- Asset Management
- Environmental Hazards
- Financial, Funding Fraud
- Customer Services
- Contracting Performance
- Governance

- Human Resources
- Information Management
- Legislative Compliance
- Planning, Strategy, Growth
- Project / Programme Management
- Public Health & Safety

The following options are available for mitigating risks to reduce the cause, probability or impact of failure:

- 1. Do nothing Accept the risk.
- 2. <u>Management Strategies</u> Implement enhanced strategies for demand management, contingency planning, quality processes, staff training, data analysis & reporting, reduce the desired Levels of Service, etc.
- 3. <u>Operational Strategies</u> Actions to reduce peak demand or stresses on the asset, operator training, documentation of operational procedures, etc.
- 4. <u>Maintenance Strategies</u> Modify the maintenance regime to make the asset more reliable or to extend its life.
- 5. <u>Asset Renewal Strategies</u> Rehabilitation or replace assets to maintain service levels.
- 6. <u>Development Strategies</u> Investment to create a new asset or augment an existing asset.
- 7. <u>Asset Disposal / Rationalisation</u> Divestment of assets surplus to needs due to a service being determined as a non-core activity or assets can be reconfigured to better meet needs.

6.2 Risk Identification

Through undertaking the building asset condition and generalist compliance assessments of the 298 pre-selected Council building assets, a number of potential issues have been raised that directly relate to the risks involved around the condition & functionality of the building assets themselves.



6.2.1 Associated Risk – Component Condition

The condition of the assessed components and the associated building assets directly affects the risks that are generated solely due to the fact that a component is in poorer condition and will therefore have a greater risk of failing.

Figure 6 below provides a Risk Matrix for all components that are associated with the 298 building assets that were visually-assessed through the current project.

	Unlikely	Possible	Likely	Probable	Almost Certain
Catastrophic	Medium 5	High 10	High 15	Extreme 20	Extreme 25
	\$ 971,545	\$ 2.2M	\$ 2M	\$ 255,740	\$ 168,219
Major	Medium 4	Medium 8	High 12	High 16	Extreme 20
	\$ 14.2M	\$ 16.9M	\$ 5.5M	\$ 707,987	\$ 868,192
Moderate	Low 3	Medium 6	Medium 9	High 12	High 15
	\$ 19.2M	\$ 14M	\$ 5M	\$ 221,019	\$ 590,591
Minor	Low 2	Medium 4	Medium 6	Medium 8	High 10
	\$ 9.1M	\$ 8.1M	\$ 2.3M	\$ 44,022	\$ 506,988
Insignificant	Low 1	Low 2	Low 3	Medium 4	Medium 5
	\$ 119,239	\$ 155,784	\$ 27,245	–	\$ 11,973

Figure 3: Associated Risk with Component Condition

Table 6-1 and Table 6-2 provides a further breakdown of the 'higher' risk components based upon their building type, but also against their component groups & types.

Table 6-1 Component Risk by Building Function									
	No.		Component Risk						
Building Function	Buildings	GRC	`Extreme'	`High'	% High Risk / GRC				
Administration	4	17,804,610	459,209	4,714,561	29.06%				
Aquatic Centre	15	10,817,723	88,026	179,794	2.48%				
Café / Restaurant	7	723,502	2,958	57,829	8.40%				
Car Park	2	2,363,700	-	8,654	0.37%				
Caretaker	5	1,072,566	2,892	92,246	8.87%				
Childcare - Council Operated	18	7,630,812	40,998	488,738	6.94%				
Childcare - Leased Out	13	8,935,168	8,576	336,705	3.86%				
Community / Creative Space	6	1,228,899	8,132	155,267	13.30%				
Community Centre - Council Operated	17	6,641,749	314,376	892,647	18.17%				
Community Centre - Leased Out	40	19,241,394	158,181	1,142,204	6.76%				
Depot / Administration	6	5,079,009	171,768	1,489,975	32.72%				
Depot / Amenities	3	942,116	-	11,569	1.23%				
Depot / Operational	22	3,110,532	162,138	158,465	10.31%				
Libraries	7	6,646,221	2,865	1,622,149	24.45%				
Park / Amenities	34	5,985,789	10,524	234,178	4.09%				
Park / Grandstand	8	5,316,568	3,395	41,101	0.84%				





Table 6-1 Component Risk by Building Function								
	No.			Component Risk				
Building Function	Buildings	GRC	`Extreme'	`High'	% High Risk / GRC			
Park / Toilet	23	1,231,244	679	31,994	2.65%			
Park / Utilities	42	1,880,693	162,138	129,898	15.53%			
Public Amenities	3	114,605	-	581	0.51%			
Residential	4	460,559	-	-	0.00%			
Reuse	3	412,163	2,558	123,769	30.65%			
Total	298	\$ 107,639,621	\$ 1,439,411	\$ 11,913,602	12.41%			

Component Group	Component Type	GRC	Extreme / High Risk	% High Risk / GRC
Exterior & Sundries	Access	2,986,345	13,383	0.45%
	External Floor	134,552	70,751	52.58%
	Fences	1,172,938	46,985	4.01%
	Gates	456,392	8,040	1.76%
	Grounds	91,964	14,460	15.72%
	Landscaping	3,180	2,756	86.67%
	Misc	1,197,970	72,804	6.08%
	Paving	1,525,906	407,644	26.71%
	Sundries	407,288	9,778	2.40%
	Swimming Pools	1,407,839	97,410	6.92%
	Tanks	643,500	11,000	1.71%
External Fabric	External Ceiling	68,970	1,500	2.17%
	External Stairs	2,223,348	344,653	15.50%
	External Walls	10,677,267	516,478	4.84%
	Louvers	244,688	2,884	1.18%
	Roof	8,136,299	673,820	8.28%
	Windows & Doors	8,389,162	1,223,458	14.58%
FFE-Other Equipment	Audio-Visual Equipment	105,650	2,700	2.56%
	Domestic Equipment	41,436	4,536	10.95%
	Kitchen Equipment	1,029,379	30,444	2.96%
FPE-Electrical Services	Distribution Boards	2,137,302	442,748	20.72%
	Emergency Power Supply	174,600	58,200	33.33%
	Lighting	4,961,454	876,387	17.66%
	Switchboards & Motor Control Centres	164,032	81,923	49.94%
FPE-Fire Services	Fire Alarm System	1,494,372	561,468	37.57%
	Fire Extinguishers	376,398	152,608	40.54%



Component Group	Component Type	GRC	Extreme /	% High
component croup	Component Type		High Risk	Risk / GRC
	Fire Sprinkler System	74,235	26,817	36.12%
	Hydrant System	247,382	41,980	16.97%
FPE-Gas Services	Gas Distribution	33,515	2,880	8.59%
FPE-Lift/Hoist	Lifts	4,387,872	2,516,681	57.36%
FPE-Mechanical Services	Air Conditioning	2,284,920	446,026	19.52%
	Air Conditioning Equipment	7,579	1,378	18.18%
	Air Distribution	458,463	65,862	14.37%
	Air Handling Units	315,641	101,789	32.25%
	Building Management System	61,160	31,200	51.01%
	Chilled Water System	191,000	96,000	50.26%
	Compressed Air/Pneumatics	36,593	20,683	56.52%
	Condenser Water System	108,150	62,400	57.70%
	Fan Coil Units	64,800	64,800	100.00%
	Fans	318,957	75,239	23.59%
	Heating System	697,839	245,310	35.15%
	Pumps	179,422	31,464	17.54%
	Refrigeration	136,800	45,600	33.33%
	Ventilation and Exhaust	148,425	16,800	11.32%
FPE-Security Services	Security	950,812	98,624	10.37%
FPE-Water Services	Sanitary Plumbing	3,778,121	75,905	2.01%
Interior Finishes	Ceiling Finishes	5,408,401	473,621	8.76%
	Fixtures & Fittings	6,879,459	353,749	5.14%
	Floor Finishes	6,963,494	1,393,140	20.01%
	Interior Doors	3,337,541	209,231	6.27%
	Interior Walls	2,092,789	386,776	18.48%
	Internal Stairs	208,322	54,848	26.33%
	Wall Finishes	8,698,043	575,059	6.61%
Reserves	Park Furniture	272,565	52,920	19.42%
	Park Infrastructure	9,800	1,120	11.43%
	Play Equipment	149,344	48,542	32.50%
	Structures	96,750	7,750	8.01%
	Grand Total	\$ 98,850,425	\$ 13,353,012	13.51%

6.3 Associated Risk - Property Quality Standards

The Property Quality Standards (PQS) assessments that were undertaken across the 282 building assets have been used to highlight potential deficiencies/shortfalls that are associated with each building asset. The PQS statements have also been used as a means to identify areas in which the Level of Service (LoS) of an asset is limited, from which improve works can be scoped.



Table 6-4 provides a breakdown of the PQS shortfalls associated within the building assets (reviewed and recommended for potential works by SPM Assets) that is aligned to PQS category.

Table 6-3 PQS Shortfalls – Recommended Works by Significance								
PQS Category		Total						
r Q3 Category	5	4	3	2	1	Total		
Accessibility	317,500	-	48,000	-	-	365,500		
Fire Systems	82,400	10,200	-	-	-	92,600		
Functionality	-	-	168,000	-	-	168,000		
Generalist Compliance	-	20,000	1,041,250	1,100,000	897,000	3,058,250		
Safety & Security	-	227,500	7,650	-	-	235,150		
Toilet	4,250	45,000	308,750	112,000	-	470,000		
Total	\$ 404,150	\$ 302,700	\$ 1,573,650	\$ 1,212,000	\$ 897,000	\$ 4,389,500		

As can be seen within the table above, each PQS category has been broken down against their associated significance values. A PQS statement with a higher significance, say a 5, should be address prior than a statement with a significance of 2.

A structured review of the PQS statements has been undertaken, from which the PQS statements have been included in the upcoming programmed works where applicable.

6.4 Project Prioritisation Based on Risk

Considering the condition data, PQS statements, and defects/issues, the prioritisation of programmed works to address the identified deficiencies can be recommended. The manner in which works should be undertaken has been stated within the points below.

- <u>Defects/Issues</u> Addressing these immediate problems should be undertaken first, in which the focus should be on higher priority rated items being progressed first. Lower priority (or N/A) items can be dealt with at a later time or rectified through programmed works associated with the building asset.
- Condition Data Components requiring renewal/replacement based upon their current condition and the established Quality Standard have been grouped together to form packages of work. These packages have been allocated to specific years based upon the criticality/risk of the associated components within the works, but also due to the importance of the building asset itself.
- 3. <u>PQS Shortfalls</u> PQS statements identified potential upgrade works to address potential functionality/ performance/ compliance instances for each building. Allowances for undertaking the identified works has been made for each building asset, however the works have been schedules to be aligned with the component renewal programmes that are also occurring for the building assets.





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Revision Rev	Revision Date	Details	Authorised	
	Revision Date		Name	Position