City of San Diego
FY15 Facility Condition Assessment Report for:
Facility # 000008 Office. City Operations Building. COB. Downtown

FACILITY EXECUTIVE SUMMARY

Facility Statistics	
Council District	3
Community Group	Downtown
Year Built	1970
Gross Square Feet	217,669
Address	1222 1st. Avenue
Latitude	32.71816
Longitude	-117.163974
Building Value	$169,433,550
Site Value	$3,310,745
Plant Replacement Value (PRV)	**$172,744,295**

Facility Condition and Backlog	
Condition Rating	**Poor**
Facility Condition Index (FCI)	**75**
Building	$82,396
Site	$0
Total Maintenance Backlog*	**$82,396**
Building	$125,102,753
Site	$3,671,423
Total Capital Backlog*	**$128,774,176**
Building	$125,185,148
Site	$3,671,423
Total Backlog*	**$128,856,571**

* See next page for definitions of terminology. It is not agency Best Management Practice to improve existing facilities to a $0 backlog. Adopting an appropriate Service Level establishes the acceptable FCI, Condition Rating, and Backlog for the facility. Backlog values do not include future needs, capital renewal, improvements, expansion, or upgrades. This static report is based on FY15 data and estimates. The facility's current condition may differ due to subsystem deterioration and work completed at the facility. The data in this report was used to prepare FY16 City Council Item 330 docketed on March 14, 2017.

FY16 Proposed Service Level: **FCI 20 - Good Condition Rating**
FY16 Proposed Reinvestment Amount: **$94,307,712**

Please refer to the following sections within this report for further details:

Glossary	Definitions of terminology
Cost Model Report	Subsystem Lifecycle and Replacement Costs
Forecast Report	Backlog and 20 year capital renewal forecast by Subsystem
Deficiency Report	Prioritized list of current and future maintenance repairs and capital replacements
Equipment Inventory	Details for equipment installed as part of a subsystem, ex. HVAC units
Solar Assessment	Solar system feasibility analysis (energy use, installation issues) and pre-design

Note: This report includes a set of reports for the assets in or on the building marked " **building only"** and a sequential set of reports for the site around the building marked "**site only".** Values shown in report have been extracted from a database and rounded to whole numbers which may introduce minor variances.

DEFINITIONS for FACILITY EXECUTIVE SUMMARY

Facility # 000008 Office. City Operations Building. COB. Downtown

Backlog: The cost to correct maintenance or life cycle subsystem deficiencies. Backlog costs do not include future needs, capital renewal, improvements, expansion, or upgrades.

> **Total Backlog** is the sum of the **Capital Backlog** and **Maintenance Backlog**.
>
> **Capital Backlog:** The cost to replace subsystems that are in service past the end of their life cycle and will eventually fail if not replaced. (Cost to replace HVAC, roof, doors, windows, etc.)
>
> **Maintenance Backlog:** The cost to correct deficiencies that are related to maintaining or repairing a facility subsystem (eg. Repairing foundation cracks, sealing concrete, repairing roof leaks, replacing a corroded coil in an HVAC unit).

Capital Renewal: The cost to replace a subsystems that will reach the end of its life cycle in future years according to the anticipated life cycle.

Condition Rating: The state of physical fitness or service readiness of a facility based on the subsystems that make up the facility (subsystems include foundation, walls, roof, mechanical, electrical, etc.). The Condition Rating for the facility is determined by the FCI score for the facility as follows:

FCI Score Range	Corresponding Condition Rating
0 to 20	Good
21 to 29	Fair
30 and greater	Poor

Facility Condition Index (FCI): An industry-standard condition score for a facility that is calculated as follows:

$$\frac{\text{Total Backlog}}{\text{Plant Replacement Value (PRV)}}$$

Gross Square Feet (GSF): The enclosed floor area in a building or under a structure measured to the outside of the structure.

Life Cycle: The period of time that a building, system or element can be expected to adequately serve its intended function. The anticipated Life Cycle for each facility subsystem is included in the Cost Model Report.

Plant Replacement Value (PRV): The cost to rebuild the same facility at the same location. The PRV is the sum of the **Building Value** and the **Site Value**.

> **Building Value:** The cost to rebuild the building including the systems in or on the building not including operational assets that are not inherent to the building (eg. Water pumps in a water treatment plant, computers in an office).
>
> **Site Value:** The cost to rebuild the systems outside the building such as parking lots, fencing, lighting, landscaping, etc.

Proposed Reinvestment Amount: The cost to improve the condition of a facility from its current FCI to the Service Level FCI. If the current FCI is less than the Service Level FCI, the Proposed Reinvestment Amount is $0. The Proposed Reinvestment Amount is calculated as follows:

$$\frac{\text{(FCI – Service Level FCI) * PRV}}{100}$$

Service Level: FCI and Condition Rating goals that are established for existing facilities throughout their life cycle to ensure service readiness.

COST MODEL REPORT: Summary of existing Subsystem values and Life Cycle information. Cost Model data does not include operational or community needs such as upgrades, improvements, expansions or building replacements.

DEFINITIONS for COST MODEL REPORT (in order presented in spreadsheet):

Subsystem: Building and Site assets that are inherent to the building operation such as HVAC provides heating, ventilating, and air conditioning and electrical systems provide power to the building.

Priority: The relative importance of correcting the deficiency (ie replacing the subsystem or performing maintenance repairs). The priority levels used in this condition assessment are Critical, Potentially Critical, Necessary, Recommended, and Not Applicable.

Cost per Square Foot: Cost per square foot of building area to replace a subsystem including hard costs (direct construction costs such as labor, materials, and equipment).

Total Cost per Square Foot: Cost per square foot of building area to replace a subsystem including hard costs and soft costs (indirect costs such as professional services, financing, taxes, etc.)

Gross Square Feet (GSF): The enclosed floor area in a building or under a structure measured to the outside of the structure.

Replacement Cost in New Facility: Cost to replace a subsystem as part of replacing the entire facility with a new facility including hard costs and soft costs.

Percent Renewed: An additional replacement cost that applies to stand-alone projects in existing buildings which accounts for disruption and repair of nearby subsystems. Example: when replacing a roof covering, work is also required on hvac units, electrical, plumbing, rainwater drains, etc.

Replacement Cost for Stand-Alone Projects: Cost to replace a subsystem as a stand-alone project in an existing facility.

Last Renovation Year: The year the subsystem was replaced or the original installation year if not renovated.

Life Cycle: The period of time that a building, system or element can be expected to adequately serve its intended function. Life Cycles for each subsystem are adopted from Building Owners and Managers Association (BOMA) International publication “How to Design and Manage Your Preventive Maintenance Program” Copyright 1996.

Override Default Renewal Year: The year that the subsystem will reach the end of its life cycle as overridden by the assessor. This override is used by the assessor in cases where the subsystem is anticipated to operate shorter or longer than its life cycle.

Next Renewal Year: The year that the subsystem will reach the end of its life cycle. Calculated by adding the Life Cycle to the Last Renovation Year.

Backlog: The cost to correct maintenance or life cycle subsystem deficiencies. Backlog costs do not include future needs, capital renewal, improvements, expansion, or upgrades.

Capital Renewal: The cost to replace a subsystem that will reach the end of its life cycle in future years according to the anticipated life cycle.

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COST MODEL REPORT – Building Only

Subsystem	Priority	Cost Per Square Foot	Total Cost Per Square Foot	Gross Square Feet	Replacement Cost in New Facility (Plant Replacement Value)	Percent Renewed	Replacement Cost for Stand-Alone projects	Last Reno Year	Life Cycle	Override Default Renewal Year	Next Renewal Year	Backlog	Capital Renewal
Totals		$518.92	$778.40	217,669	$169,433,549.60		$245,643,275.71					$125,185,148.41	$50,291,917.90
Standard Foundations	Potentially Critical	$5.18	$7.77	217,669	$1,691,288.13	145	$2,452,367.79	1970	100	0	2070	$0.00	$0.00
Special Foundations	Not Applicable	$0.00	$0.00	217,669	$0.00	145	$0.00	0	0	0	1970	$0.00	$0.00
Slab on Grade	Potentially Critical	$2.20	$3.30	217,669	$718,307.70	145	$1,041,546.16	1970	100	0	2070	$0.00	$0.00
Basement Excavation	Potentially Critical	$0.25	$0.38	217,669	$82,714.22	145	$119,935.62	1970	100	0	2070	$0.00	$0.00
Basement Walls	Potentially Critical	$6.96	$10.44	217,669	$2,272,464.36	145	$3,295,073.32	1970	100	0	2070	$0.00	$0.00
Floor Construction	Potentially Critical	$49.98	$74.97	217,669	$16,318,644.93	145	$23,662,035.15	1970	100	0	2070	$0.00	$0.00
Roof Construction	Potentially Critical	$9.39	$14.08	217,669	$3,064,779.52	145	$4,443,930.30	1970	100	0	2070	$0.00	$0.00
Exterior Walls	Potentially Critical	$68.14	$102.21	217,669	$22,247,948.49	145	$32,259,525.31	1970	100	0	2070	$0.00	$0.00
Exterior Windows	Necessary	$16.85	$25.28	217,669	$5,502,672.32	150	$8,254,008.48	1970	40	0	2010	$8,254,008.48	$0.00
Exterior Doors	Necessary	$4.28	$6.42	217,669	$1,397,434.98	150	$2,096,152.47	1970	40	0	2010	$2,029,471.76	$0.00
Roof Coverings	Critical	$2.19	$3.28	217,669	$713,954.32	165	$1,178,024.63	1995	20	0	2015	$1,178,024.63	$0.00
Partitions	Recommended	$15.57	$23.36	217,669	$5,084,747.84	155	$7,881,359.15	1970	75	0	2045	$0.00	$0.00
Interior Doors	Recommended	$24.60	$36.90	217,669	$8,031,986.10	150	$12,047,979.15	1970	30	0	2000	$12,047,979.15	$0.00
Fittings	Recommended	$4.28	$6.42	217,669	$1,397,434.98	150	$2,096,152.47	2007	30	0	2037	$0.00	$0.00
Stair Construction	Potentially Critical	$19.78	$29.67	217,669	$6,458,239.23	150	$9,687,358.84	1970	75	0	2045	$0.00	$0.00
Stair Finishes	Recommended	$1.98	$2.97	217,669	$646,476.93	145	$937,391.55	1970	20	0	1990	$937,391.55	$0.00

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COST MODEL REPORT – Building Only

Subsystem	Priority	Cost Per Square Foot	Total Cost Per Square Foot	Gross Square Feet	Replacement Cost in New Facility (Plant Replacement Value)	Percent Renewed	Replacement Cost for Stand-Alone projects	Last Reno Year	Life Cycle	Override Default Renewal Year	Next Renewal Year	Backlog	Capital Renewal
Wall Finishes	Recommended	$4.90	$7.35	217,669	$1,599,867.15	145	$2,319,807.37	1970	10	0	1980	$2,319,807.37	$0.00
Floor Finishes	Recommended	$34.32	$51.48	217,669	$11,205,600.12	145	$16,248,120.17	1970	10	0	1980	$16,248,120.17	$0.00
Ceiling Finishes	Recommended	$28.81	$43.22	217,669	$9,407,654.18	145	$13,641,098.56	1970	25	0	1995	$13,641,098.56	$0.00
Elevators and Lifts	Necessary	$51.75	$77.62	217,669	$16,895,467.78	135	$22,808,881.50	1970	30	0	2000	$21,440,921.30	$1,585,876.26
Escalators and Moving Walks	Not Applicable	$0.00	$0.00	217,669	$0.00	145	$0.00	0	0	0	1970	$0.00	$0.00
Other Conveying Systems	Necessary	$0.89	$1.34	217,669	$291,676.46	145	$422,930.87	1970	30	0	2000	$422,930.87	$0.00
Plumbing Fixtures	Necessary	$15.24	$22.86	217,669	$4,975,913.34	135	$6,717,483.01	1970	30	0	2000	$6,717,483.01	$0.00
Domestic Water Distribution	Potentially Critical	$1.81	$2.72	217,669	$592,059.68	145	$858,486.54	1970	30	0	2000	$858,486.54	$0.00
Sanitary Waste	Recommended	$2.71	$4.06	217,669	$883,736.14	150	$1,325,604.21	1970	30	0	2000	$1,325,604.21	$0.00
Rain Water Drainage	Necessary	$2.55	$3.82	217,669	$831,495.58	145	$1,205,668.59	1970	30	0	2000	$1,205,668.59	$0.00
Other Plumbing Systems	Recommended	$0.12	$0.18	217,669	$39,180.42	145	$56,811.61	2000	20	0	2020	$0.00	$65,861.70
Energy Supply	Not Applicable	$0.00	$0.00	217,669	$0.00	145	$0.00	0	0	0	1970	$0.00	$0.00
Heat Generating Systems	Not Applicable	$0.00	$0.00	217,669	$0.00	145	$0.00	1970	0	0	1970	$0.00	$0.00
Cooling Generating Systems	Potentially Critical	$0.60	$0.90	217,669	$195,902.10	145	$284,058.04	1970	30	0	2000	$122,598.37	$244,223.90
Distribution Systems	Necessary	$36.90	$55.35	217,669	$12,047,979.15	145	$17,469,569.77	1970	30	0	2000	$17,279,895.31	$268,623.25
Terminal and Package Units	Potentially Critical	$1.29	$1.94	217,669	$422,277.86	145	$612,302.90	2000	20	0	2020	$4,447.93	$704,084.91

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COST MODEL REPORT – Building Only

Subsystem	Priority	Cost Per Square Foot	Total Cost Per Square Foot	Gross Square Feet	Replacement Cost in New Facility (Plant Replacement Value)	Percent Renewed	Replacement Cost for Stand-Alone projects	Last Reno Year	Life Cycle	Override Default Renewal Year	Next Renewal Year	Backlog	Capital Renewal
Controls and Instrumentation	Necessary	$3.99	$5.98	217,669	$1,301,660.62	145	$1,887,407.90	2000	20	0	2020	$0.00	$2,188,071.98
Other HVAC Systems	Not Applicable	$0.00	$0.00	217,669	$0.00	145	$0.00	0	0	0	1970	$0.00	$0.00
Sprinklers	Critical	$5.74	$8.61	217,669	$1,874,130.09	145	$2,717,488.63	1970	30	0	2000	$2,717,488.63	$0.00
Standpipes	Not Applicable	$0.00	$0.00	217,669	$0.00	145	$0.00	0	30	0	2000	$0.00	$0.00
Other Fire Protection Systems	Not Applicable	$0.00	$0.00	217,669	$0.00	145	$0.00	0	0	0	1970	$0.00	$0.00
Electrical Service Distribution	Potentially Critical	$19.41	$29.12	217,669	$6,338,521.28	150	$9,507,781.92	1970	30	0	2000	$9,496,303.81	$0.00
Lighting and Branch Wiring	Necessary	$59.69	$89.54	217,669	$19,490,082.26	145	$28,260,619.28	2000	30	0	2030	$0.00	$44,030,044.84
Communications and Security	Critical	$14.60	$21.90	217,669	$4,766,951.10	145	$6,912,079.10	2005	10	0	2015	$6,893,231.36	$23,876.32
Other Electrical or Generator	Critical	$0.99	$1.48	217,669	$322,150.12	145	$467,117.67	2000	20	0	2020	$0.00	$541,529.51
Commercial Equipment	Not Applicable	$0.00	$0.00	217,669	$0.00	145	$0.00	0	0	0	1970	$0.00	$0.00
Institutional Equipment	Not Applicable	$0.00	$0.00	217,669	$0.00	145	$0.00	0	0	0	1970	$0.00	$0.00
Vehicular Equipment	Not Applicable	$0.00	$0.00	217,669	$0.00	145	$0.00	0	0	0	1970	$0.00	$0.00
Other Equipment	Recommended	$0.89	$1.34	217,669	$291,676.46	145	$422,930.87	2009	20	0	2029	$0.00	$639,725.23
Fixed Furnishings	Not Applicable	$0.00	$0.00	217,669	$0.00	145	$0.00	0	30	0	2000	$0.00	$0.00
Special Structures	Recommended	$0.09	$0.14	217,669	$30,473.66	145	$44,186.81	1980	30	0	2010	$44,186.81	$0.00

FORECAST REPORT: Summary of Backlog and 20 year capital renewal forecast. Subsystem End-Of-Life Cycle Replacement Costs for Stand-Alone Projects are included in the year that the subsystem reaches the end of its Life Cycle. Inflation is assumed to be 3%. This Forecast does not include operational or community needs such as upgrades, improvements, expansions or building replacements. This Forecast is not a funding plan or capital plan. This forecast can be combined with operational or community input to develop an asset management plan.

DEFINITIONS for FORECAST REPORT:

Subsystem: Building and Site assets that are inherent to the building operation such as HVAC provides heating, ventilating, and air conditioning and electrical systems provide power to the building.

Year column 2015: The Backlog of subsystems that have reached the end of their Life Cycle. Subsystems are still in operation and failure becomes more likely as a subsystem passes the end of its Life Cycle.

Year columns 2016 through 2035: The Capital Renewal cost of subsystems that will reach the end of their Life Cycle in the future.

FORECAST REPORT – Building Only

Subsystem	2015($)	2016($)	2017($)	2018($)	2019($)	2020($)	2021($)	2022($)	2023($)	2024($)	2025($)	2026($)	2027($)	2028($)	2029($)	2030($)	2031($)	2032($)	2033($)	2034($)	2035($)
Totals	**$125,185,148**	**$0**	**$20,940**	**$0**	**$20,025**	**$5,082,444**	**$0**	**$0**	**$33,851**	**$0**	**$65,587**	**$49,249**	**$0**	**$0**	**$883,949**	**$44,030,045**	**$22,746**	**$0**	**$83,083**	**$0**	**$0**
FOUNDATIONS	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Slab on Grade	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Special Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Standard Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
BASEMENT CONSTRUCTION	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Basement Excavation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Basement Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
SUPERSTRUCTURE	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Floor Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Roof Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
EXTERIOR ENCLOSURE	**$10,283,480**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Exterior Doors	$2,029,472	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Exterior Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Exterior Windows	$8,254,008	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ROOFING	**$1,178,025**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Roof Coverings	$1,178,025	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
INTERIOR CONSTRUCTION	**$12,047,979**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Fittings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interior Doors	$12,047,979	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Partitions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
STAIRS	**$937,392**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Stair Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Stair Finishes	$937,392	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
INTERIOR FINISHES	**$32,209,026**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Ceiling Finishes	$13,641,099	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Floor Finishes	$16,248,120	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Wall Finishes	$2,319,807	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
CONVEYING	**$21,863,852**	**$0**	**$0**	**$0**	**$0**	**$1,585,876**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Elevators and Lifts	$21,440,921	$0	$0	$0	$0	$1,585,876	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Escalators and Moving Walks	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Conveying Systems	$422,931	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
PLUMBING	**$10,107,242**	**$0**	**$0**	**$0**	**$0**	**$65,862**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Domestic Water Distribution	$858,487	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Facility # 000008 Office. City Operations Building. COB. Downtown

FORECAST REPORT – Building Only

Subsystem	2015($)	2016($)	2017($)	2018($)	2019($)	2020($)	2021($)	2022($)	2023($)	2024($)	2025($)	2026($)	2027($)	2028($)	2029($)	2030($)	2031($)	2032($)	2033($)	2034($)	2035($)
Other Plumbing Systems	$0	$0	$0	$0	$0	$65,862	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Plumbing Fixtures	$6,717,483	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Rain Water Drainage	$1,205,669	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sanitary Waste	$1,325,604	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
HVAC	**$17,406,942**	**$0**	**$20,940**	**$0**	**$20,025**	**$2,889,176**	**$0**	**$0**	**$9,974**	**$0**	**$65,587**	**$49,249**	**$0**	**$0**	**$244,224**	**$0**	**$22,746**	**$0**	**$83,083**	**$0**	**$0**
Controls and Instrumentation	$0	$0	$0	$0	$0	$2,188,072	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Cooling Generating Systems	$122,598	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$244,224	$0	$0	$0	$0	$0	$0
Distribution Systems	$17,279,895	$0	$20,940	$0	$0	$17,044	$0	$0	$9,974	$0	$65,587	$49,249	$0	$0	$0	$0	$22,746	$0	$83,083	$0	$0
Energy Supply	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Heat Generating Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other HVAC Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Terminal and Package Units	$4,448	$0	$0	$0	$20,025	$684,060	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
FIRE PROTECTION	**$2,717,489**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Other Fire Protection Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sprinklers	$2,717,489	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Standpipes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ELECTRICAL	**$16,389,535**	**$0**	**$0**	**$0**	**$0**	**$541,530**	**$0**	**$0**	**$23,876**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$44,030,045**	**$0**	**$0**	**$0**	**$0**	**$0**
Communications and Security	$6,893,231	$0	$0	$0	$0	$0	$0	$0	$23,876	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Electrical Service Distribution	$9,496,304	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Lighting and Branch Wiring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$44,030,045	$0	$0	$0	$0	$0
Other Electrical or Generator	$0	$0	$0	$0	$0	$541,530	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
EQUIPMENT	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$639,725**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Commercial Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Institutional Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$639,725	$0	$0	$0	$0	$0	$0
Vehicular Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
FURNISHINGS	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Fixed Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
SPECIAL CONSTRUCTION	**$44,187**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Special Structures	$44,187	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

DEFICIENCY REPORT: Summary of individual deficiencies that are included in the Cost Model Backlog and Capital Renewal costs. This deficiency report does not include operational or community needs such as upgrades, improvements, expansions or building replacements.

DEFINITIONS for DEFICIENCY REPORT (in order presented in spreadsheet):

Year: The year that the subsystem will reach the end of its Life Cycle or the year that the maintenance repairs are assessed. The year for a particular deficiency corresponds with the year in the Forecast Report and the Next Renewal Year in the Cost Model Report.

Priority: The relative urgency of completing the work as compared to other work within the inventory based on the impact of failure of the Subsystem. The categories included from highest priority to lowest priority are Critical, Potentially Critical, Necessary, and Recommended. Critical and Potentially Critical work could affect the health and safety of the building if not corrected. Necessary and Recommended work could result in minor impact to the building if not corrected. The Not Applicable category includes work that is not priority ranked because it is not based on failure and operations impact (eg. accessibility improvements – new toilets, wider access hallways).

Subsystem: Building and Site assets that are inherent to the building operation such as HVAC provides heating, ventilating, and air conditioning and electrical systems provide power to the building.

Correction: A description of the work needed to fix the deficiency. Examples of corrections include Replace, Repair, Clean, Patch, etc.

Photo: Photograph of subsystem. Some photographs are stock photos of typical subsystems.

Location: Location includes Floor location, Room location, ID if available, and Type which indicates component of subsystem with deficiency.

Funding Type: Funding required to correct deficiency. Capital funding is indicated if entire subsystem is to be replaced. Maintenance funding is indicated for partial replacements, repairs, cleaning, patching, etc.

Cost: The cost to correct the deficiency. Costs are included in the Cost Model based on subsystem and the Forecast based on subsystem and year. Current year deficiencies are included in the Capital or Maintenance Backlog.

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Necessary	Elevators and Lifts	Replace		1970 System	Capital	$21,440,921

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Recommended	Floor Finishes	Replace		1970 System	Capital	$16,246,752
2015	Necessary	Distribution Systems	Replace		1970 System	Capital	$15,383,765
2015	Recommended	Ceiling Finishes	Replace		1970 System	Capital	$13,641,099

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Recommended	Interior Doors	Replace		1970 System	Capital	$12,047,665
2015	Potentially Critical	Electrical Service Distribution	Replace		1970 System	Capital	$8,975,392
2015	Necessary	Exterior Windows	Replace		1970 System	Capital	$8,226,037

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Critical	Communications and Security	Replace		1970 System	Capital	$6,893,231
2015	Necessary	Plumbing Fixtures	Replace		1970 System	Capital	$6,717,483
2015	Critical	Sprinklers	Replace		1970 System	Capital	$2,710,450

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Recommended	Wall Finishes	Replace		1970 System	Capital	$2,289,663
2015	Necessary	Exterior Doors	Replace		1970 System	Capital	$2,006,874
2015	Recommended	Sanitary Waste	Replace		1970 System	Capital	$1,325,604

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Necessary	Rain Water Drainage	Replace		1970 System	Capital	$1,205,669
2015	Recommended	Stair Finishes	Replace		1970 System	Capital	$937,392
2015	Potentially Critical	Domestic Water Distribution	Replace		1970 System	Capital	$858,487

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Critical	Roof Coverings	Replace		1970 System	Capital	$824,043
2015	Necessary	Distribution Systems	Replace		Floor: Roof 1 Room: Penthouse ID: Type: Air Handling Units	Capital	$491,751
2015	Necessary	Distribution Systems	Replace		Floor: Roof 1 Room: Penthouse ID: Type: Air Handling Units	Capital	$491,751

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Necessary	Other Conveying Systems	Replace		1970 System	Capital	$422,931
2015	Critical	Roof Coverings	Replace		Floor: Roof 2 Room: Roof ID: Type: Modified Bitumen	Capital	$320,269
2015	Potentially Critical	Electrical Service Distribution	Replace		Floor: Roof 1 Room: Penthouse ID: Type: Motor Control Centers	Capital	$259,373

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Necessary	Distribution Systems	Replace		Floor: Roof 1 Room: Penthouse ID: Type: Air Handling Units	Capital	$199,722
2015	Potentially Critical	Electrical Service Distribution	Replace		Floor: Roof 1 Room: Penthouse ID: Type: Motor Control Centers	Capital	$147,693
2015	Necessary	Distribution Systems	Replace		Floor: Roof 1 Room: Penthouse ID: U-696253 Type: Exhaust Fans	Capital	$143,900

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Necessary	Distribution Systems	Replace		Floor: Roof 1 Room: Penthouse ID: U-696253 Type: Exhaust Fans	Capital	$143,900
2015	Potentially Critical	Electrical Service Distribution	Replace		Floor: B1 Room: Main Elec Room ID: SNE25574-1F Type: Electrical Panel	Capital	$113,845
2015	Necessary	Distribution Systems	Replace		Floor: B1 Room: Mech Room ID: Type: Air Handling Units	Capital	$108,407

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Necessary	Distribution Systems	Replace		Floor: B1 Room: Mech Room 2 ID: Type: Air Handling Units	Capital	$108,407
2015	Potentially Critical	Cooling Generating Systems	Replace		Floor: Roof 1 Room: Penthouse ID: Type: Cooling Towers	Capital	$88,425
2015	Recommended	Special Structures	Replace		1970 System	Capital	$44,187

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Potentially Critical	Cooling Generating Systems	Replace		1970 System	Capital	$34,174
2015	Critical	Roof Coverings	Replace		Floor: Roof 1 Room: Roof ID: Type: Modified Bitumen	Capital	$33,713
2015	Necessary	Distribution Systems	Replace		Floor: Roof 1 Room: Penthouse ID: U-696251 Type: Exhaust Fans	Capital	$23,740

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Necessary	Distribution Systems	Replace		Floor: Roof 1 Room: Penthouse ID: 696252 Type: Exhaust Fans	Capital	$23,740
2015	Recommended	Wall Finishes	Remove and Replace		Floor: 1 Room: Lobby	Maintenance	$23,640
2015	Recommended	Exterior Windows	Renew Finishes		Floor: Roof 1 Room: Roof	Maintenance	$22,177

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Recommended	Exterior Doors	Remove and Replace		Floor: 1 Room: Fire Staion	Maintenance	$21,471
2015	Necessary	Distribution Systems	Replace		Floor: Roof 1 Room: Penthouse ID: 4UG0298 Type: Exhaust Fans	Capital	$14,175
2015	Necessary	Distribution Systems	Replace		Floor: Roof 1 Room: Penthouse ID: Type: Exhaust Fans	Capital	$14,175

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Necessary	Distribution Systems	Replace		Floor: Roof 1 Room: Penthouse ID: Type: Cooling Tower Water Pumps	Capital	$12,568
2015	Necessary	Distribution Systems	Replace		Floor: Roof 1 Room: Penthouse ID: Type: Cooling Tower Water Pumps	Capital	$12,568
2015	Necessary	Distribution Systems	Replace		Floor: Roof 1 Room: Penthouse ID: Type: Exhaust Fans	Capital	$12,025

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Necessary	Distribution Systems	Replace		Floor: B1 Room: Mech Room ID: Type: Exhaust Fans	Capital	$10,144
2015	Necessary	Distribution Systems	Replace		Floor: B1 Room: Mech Room 2 ID: Type: Chilled Water Pumps	Capital	$9,891
2015	Necessary	Distribution Systems	Replace		Floor: B1 Room: Mech Room 2 ID: Type: Chilled Water Pumps	Capital	$9,891

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Necessary	Distribution Systems	Replace		Floor: Roof 1 Room: Penthouse ID: Type: Chilled Water Pumps	Capital	$9,891
2015	Necessary	Distribution Systems	Replace		Floor: Roof 1 Room: Penthouse ID: Type: Chilled Water Pumps	Capital	$9,891
2015	Necessary	Distribution Systems	Replace		Floor: B1 Room: Basement ID: 191588 Type: Exhaust Fans	Capital	$9,532

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Necessary	Distribution Systems	Replace		Floor: B1 Room: Basement ID: Type: Fan Coil Units	Capital	$7,874
2015	Necessary	Distribution Systems	Replace		Floor: B1 Room: Basement ID: Type: Exhaust Fans	Capital	$7,798
2015	Necessary	Distribution Systems	Replace		Floor: 1 Room: Fire Station Bay ID: Type: Exhaust Fans	Capital	$7,798

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Critical	Sprinklers	Replace		Floor: B1 Room: Basement ID: Type: Fire Suppression Valve	Capital	$7,039
2015	Recommended	Wall Finishes	Repair		Floor: 6 Room: Mechanical Penthouse	Maintenance	$6,504
2015	Recommended	Exterior Windows	Renew Finishes		Floor: 1 Room: Fire Staion	Maintenance	$5,795

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Necessary	Distribution Systems	Replace		Floor: 5 Room: Phone Room ID: 152857 Type: Exhaust Fans	Capital	$5,496
2015	Potentially Critical	Terminal and Package Units	Replace		Floor: 1 Room: Loading Dock ID: Type: Air Cooled Condensing Units	Capital	$4,448
2015	Necessary	Distribution Systems	Replace		Floor: 1 Room: Fire Station Bay ID: Type: Exhaust Fans	Capital	$3,549

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Necessary	Distribution Systems	Replace		Floor: 1 Room: Fire Station Bay ID: Type: Exhaust Fans	Capital	$3,549
2015	Recommended	Floor Finishes	Clean		Floor: 1 Room: Lobby	Maintenance	$1,368
2015	Recommended	Exterior Doors	Renew Finishes		Floor: Roof 1 Room: Roof	Maintenance	$1,127

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Necessary	Interior Doors	Repair		Floor: 1 Room: Fire Station Offices	Maintenance	$314
2017	Necessary	Distribution Systems	Replace		Floor: 5 Room: Data Room ID: Type: Fan Coil Units	Capital	$5,350
2017	Necessary	Distribution Systems	Replace		Floor: 5 Room: Data Room ID: Type: Fan Coil Units	Capital	$5,350

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2017	Necessary	Distribution Systems	Replace		Floor: 5 Room: Phone Room ID: Type: Fan Coil Units	Capital	$5,350
2017	Necessary	Distribution Systems	Replace		Floor: 5 Room: Data Room ID: Type: Fan Coil Units	Capital	$4,891
2019	Potentially Critical	Terminal and Package Units	Replace		Floor: 5 Room: Elevator Lobby ID: Type: Air Cooled Condensing Units	Capital	$5,006

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2019	Potentially Critical	Terminal and Package Units	Replace		Floor: 5 Room: Elevator Lobby ID: Type: Air Cooled Condensing Units	Capital	$5,006
2019	Potentially Critical	Terminal and Package Units	Replace		Floor: 5 Room: Elevator Lobby ID: Type: Air Cooled Condensing Units	Capital	$5,006
2019	Potentially Critical	Terminal and Package Units	Replace		Floor: 5 Room: Elevator Lobby ID: Type: Air Cooled Condensing Units	Capital	$5,006

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2020	Necessary	Controls and Instrumentation	Replace		1970 System	Capital	$2,188,072
2020	Potentially Critical	Terminal and Package Units	Replace		1970 System	Capital	$684,060
2020	Necessary	Elevators and Lifts	Replace		Floor: Roof 1 Room: Elevator Machine Room ID: 2-40152-57 Type: Elevators	Capital	$422,921

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2020	Necessary	Elevators and Lifts	Replace		Floor: Roof 1 Room: Elevator Machine Room ID: 2-4052-17 Type: Elevators	Capital	$421,156
2020	Necessary	Elevators and Lifts	Replace		Floor: Roof 1 Room: Elevator Machine Room ID: 2-40152-57 Type: Elevators	Capital	$421,156
2020	Critical	Other Electrical or Generator	Replace		1970 System	Capital	$395,241

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2020	Necessary	Elevators and Lifts	Replace		Floor: B1 Room: Basement ID: Type: Elevators	Capital	$320,644
2020	Critical	Other Electrical or Generator	Replace		Floor: B1 Room: Generator Room ID: S423331 Type: Generators	Capital	$146,289
2020	Recommended	Other Plumbing Systems	Replace		1970 System	Capital	$65,862

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2020	Necessary	Distribution Systems	Replace		Floor: B1 Room: Generator Room ID: 152855 Type: Exhaust Fans	Capital	$11,050
2020	Necessary	Distribution Systems	Replace		Floor: 5 Room: Data Room ID: 152856 Type: Exhaust Fans	Capital	$5,994
2023	Critical	Communications and Security	Replace		Floor: B1 Room: Basement ID: 5831283014 Type: Fire Alarm System	Capital	$23,876

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2023	Necessary	Distribution Systems	Replace		Floor: Roof 2 Room: Roof ID: 11697785 0903 Type: Exhaust Fans	Capital	$9,974
2025	Necessary	Distribution Systems	Replace		Floor: B1 Room: Data Room 2 ID: Type: Air Handling Units	Capital	$65,587
2026	Necessary	Distribution Systems	Replace		Floor: 1 Room: Fire Station Bay ID: Type: Vehicle Exhaust System	Capital	$48,682

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2026	Necessary	Distribution Systems	Replace		Floor: 1 Room: Fire Station Bay ID: Type: Exhaust Fans	Capital	$567
2029	Recommended	Other Equipment	Replace		1970 System	Capital	$639,725
2029	Potentially Critical	Cooling Generating Systems	Replace		Floor: 1 Room: Fire Station Bay ID: C99G14091M Type: Chillers	Capital	$244,224

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DEFICIENCY REPORT – Building Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2030	Necessary	Lighting and Branch Wiring	Replace		1970 System	Capital	$44,030,045
2031	Necessary	Distribution Systems	Replace		Floor: Roof 1 Room: Penthouse ID: 12384840 Type: Exhaust Fans	Capital	$22,746
2033	Necessary	Distribution Systems	Replace		Floor: B1 Room: Data Room ID: Type: Air Handling Units	Capital	$83,083

EQUIPMENT INVENTORY REPORT: List Of equipment that is installed as part of the existing subsystems. Estimated Replacement Costs are for the equipment only and are included in the subsystem replacement costs in the Cost Model.

DEFINITIONS for EQUIPMENT INVENTORY (in order presented in spreadsheet):

Subsystem: Building and Site assets that are inherent to the building operation such as HVAC provides heating, ventilating, and air conditioning and electrical systems provide power to the building.

Space: Location of equipment.

Equipment Number: City-issued number on some equipment such as HVAC units on some buildings.

Equipment Type: The type of equipment such as Air Handling Unit, Exhaust Fan, Domestic Water Pump, etc.

Manufacturer, Model Number, Serial Number: Information from the tag if there was a readable tag during the assessment. Some equipment such as Roof Coverings do not have tag information.

Capacity: Size or output of equipment if known. UNK stands for unknown and indicates that the size was not visible in the field.

UOM: Unit of Measure that describes the data in Capacity column such as HP for Horse Power of pump, TON for air condition tonnage, AMP for electrical breaker amperage, etc.

Year Installed: Estimated year equipment was installed based on year building was installed or year equipment was estimated to be replaced based on records available during assessment and staff interviews.

Next Renewal Year: The year that the subsystem will reach the end of its life cycle. Calculated by adding the Life Cycle to the Last Renovation Year.

Estimated Replacement Cost: Cost to replace the equipment only not the entire subsystem. The equipment costs are included in the Cost Model's Subsystem Replacement Costs and in the Forecast Needs Costs

Funding Type: Funding required to correct deficiency. Capital funding is indicated if entire subsystem is to be replaced. Maintenance funding is indicated for partial replacements, repairs, cleaning, patching, etc.

Photo: Photograph of equipment. Some photographs are stock photos of typical equipment.

Assessor Notes: Additional notes by assessor which may indicate more details about location, tag, or condition.

EQUIPMENT INVENTORY REPORT – Building Only

Subsystem	Space	Equipment Number	Equipment Type	Manufacturer	Model Number	Serial Number	Capacity	UOM	Year Installed	Next Renewal Year	Estimated Replacement Cost	Funding Type	Photo	Assessor Notes
Distribution Systems	Basement	SA 101	Fan Coil Units	MCQUAY INTERNATIONAL			0.5	HP	1970	1988	$7,874	Capital		OSA SUPPLY FAN. P559.
Distribution Systems	Basement	EF 7	Exhaust Fans				UNK		1970	1990	$7,798	Capital		INLINE. P557.
Distribution Systems	Mech Room	F 3	Exhaust Fans				5	HP	1970	1990	$10,144	Capital		RA FAN FOR AH-2. P572.
Distribution Systems	Penthouse	RF 2	Exhaust Fans	SHELDONS	445	U-696251	20	HP	1970	1990	$23,740	Capital		RETURN AIR FAN. SERVES AHU. P486. VFD.
Distribution Systems	Penthouse	SF 1	Exhaust Fans	SHELDONS	365	U-696253	75	HP	1970	1990	$143,900	Capital		SUPPLY FAN SERVING AHU. MOTOR RENEWED 2010(EST.). P473. VFD.

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EQUIPMENT INVENTORY REPORT – Building Only

Subsystem	Space	Equipment Number	Equipment Type	Manufacturer	Model Number	Serial Number	Capacity	UOM	Year Installed	Next Renewal Year	Estimated Replacement Cost	Funding Type	Photo	Assessor Notes
Distribution Systems	Penthouse	EF 1	Exhaust Fans	SNYDER GENERAL	22 B1 CW	4UG0298	UNK		1970	1990	$14,175	Capital		PART ID 927535-01. P502.
Distribution Systems	Penthouse	F 1	Exhaust Fans	SHELDONS	445	696252	20	HP	1970	1990	$23,740	Capital		RETURN AIR FAN. P461. VFD.
Distribution Systems	Penthouse	SF 2	Exhaust Fans	SHELDONS	365	U-696253	75	HP	1970	1990	$143,900	Capital		SUPPLY FAN FOR AHU. MOTOR REPLACED 2010 (EST). P481. VFD.
Distribution Systems	Penthouse	EF 5	Exhaust Fans				UNK		1970	1990	$14,175	Capital		NORTH INTETIOR EXHAUST. P490.
Sprinklers	Basement	Not Labeled	Fire Suppression Valve	KENNEDY	175W		UNK		1970	1990	$7,039	Capital		8 IN, P601
Distribution Systems	Penthouse	Not Labeled	Cooling Tower Water Pumps				UNK		1970	1995	$12,568	Capital		NOT IN USE. ABANDONED CP. P504.
Distribution Systems	Penthouse	Not Labeled	Cooling Tower Water Pumps				UNK		1970	1995	$12,568	Capital		NOT IN USE. ABANDONED CP. P503.
Distribution Systems	Mech Room	AH 2	Air Handling Units				7.5	HP	1970	1995	$108,407	Capital		CW. P571.
Distribution Systems	Mech Room 2	AH 1	Air Handling Units				UNK		1970	1995	$108,407	Capital		CW. VFD. P593. MOTOR REPLACED.
Distribution Systems	Penthouse	Not Labeled	Air Handling Units				UNK		1970	1995	$491,751	Capital		BUILT-UP AHU. VFD. SERVED BY SF-2 & RF-2. CW/HW. P499.
Distribution Systems	Penthouse	Not Labeled	Air Handling Units				UNK		1970	1995	$199,722	Capital		NOT IN USE. ABANDONED CP.

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EQUIPMENT INVENTORY REPORT – Building Only

Subsystem	Space	Equipment Number	Equipment Type	Manufacturer	Model Number	Serial Number	Capacity	UOM	Year Installed	Next Renewal Year	Estimated Replacement Cost	Funding Type	Photo	Assessor Notes
Distribution Systems	Penthouse	Not Labeled	Air Handling Units				UNK		1970	1995	$491,751	Capital		BUILT-UP AHU. SERVED BY SF-1 & F-1. CW/HW. P474. VFD.
Distribution Systems	Mech Room 2	P 6A	Chilled Water Pumps	BELL AND GOSSETT			3 HP		1970	1995	$9,891	Capital		NOT IN USE. POOR CONDITION. P598.
Distribution Systems	Mech Room 2	P 5A	Chilled Water Pumps	BELL AND GOSSETT	5792906L		3 HP		1970	1995	$9,891	Capital		NOT IN USE. POOR CONDITION. P597.
Distribution Systems	Penthouse	33	Chilled Water Pumps				UNK		1970	1995	$9,891	Capital		NOT IN SERVICE. ABANDONED CO. P510.
Distribution Systems	Penthouse	32	Chilled Water Pumps				UNK		1970	1995	$9,891	Capital		NOT IN USE. ABANDONED CP. P509.
Electrical Service Distribution	Penthouse	Not Labeled	Motor Control Centers	WESTINGHOUSE	SNC-25574-2		600	AMP	1970	1995	$147,693	Capital		INCLUDED TRANSFER SWITCH SECTION. P259.
Electrical Service Distribution	Penthouse	Not Labeled	Motor Control Centers	WESTINGHOUSE	SNC 25574-2		600	AMP	1970	1995	$259,373	Capital		P507
Cooling Generating Systems	Penthouse	Not Labeled	Cooling Towers				UNK		1970	2000	$88,425	Capital		NOT IN USE. ROTTED. RUSTED/CORRODED. ABANDONED CP. P506.
Electrical Service Distribution	Main Elec Room	Not Labeled	Electrical Panel	WESTINGHOUSE		SNE25574-1F	3000	AMP	1970	2000	$113,845	Capital		SUBSTATION, OIL FILL XFMR, 12 KV PRIMARY, 2000 KVA. P575.
Distribution Systems	Penthouse	EF 3	Exhaust Fans	PHILIPPS	FGP15-9		3	HP	1988	2008	$12,025	Capital		P501
Distribution Systems	Basement	Not Labeled	Exhaust Fans	GREENHECK FAN CORP	SQB-24-30	191588	3	HP	1990	2010	$9,532	Capital		EST DATE. P568

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EQUIPMENT INVENTORY REPORT – Building Only

Subsystem	Space	Equipment Number	Equipment Type	Manufacturer	Model Number	Serial Number	Capacity	UOM	Year Installed	Next Renewal Year	Estimated Replacement Cost	Funding Type	Photo	Assessor Notes
Distribution Systems	Fire Station Bay	Fan 1	Exhaust Fans				UNK		1990	2010	$3,549	Capital		WALL MNT, EST DATE. P542.
Distribution Systems	Fire Station Bay	Not Labeled	Exhaust Fans				UNK		1990	2010	$7,798	Capital		INLINE EF FOR FUEL SYSTEM. EST DATE. P540.
Distribution Systems	Fire Station Bay	Fan 2	Exhaust Fans				UNK		1990	2010	$3,549	Capital		WALL MNT. EST DATE. P542.
Distribution Systems	Phone Room	Not Labeled	Exhaust Fans	GREENHECK FAN CORP	508-1D4	152857	0.25		1990	2010	$5,496	Capital		EST DATE. P606.
Roof Coverings	Roof	Not Labeled	Modified Bitumen				UNK		1995	2010	$33,713	Capital		P456.
Terminal and Package Units	Loading Dock	Not Labeled	Air Cooled Condensing Units	CARRIER			UNK		1990	2010	$4,448	Capital		EST DATE. MINI SPLIT. MATCHING FCU NOT FOUND. P611.
Roof Coverings	Roof	Not Labeled	Modified Bitumen				UNK		2000	2015	$320,269	Capital		GRANULAR SURFACE. P492.
Distribution Systems	Data Room	Not Labeled	Fan Coil Units	QUIETSIDE			UNK		1999	2017	$4,610	Capital		MINI SPLIT. P604. EST DATE.
Distribution Systems	Data Room	Not Labeled	Fan Coil Units	COAIRE	CIC-18M2Z		UNK		1999	2017	$5,043	Capital		EST DATE. MINI SPLIT. P607.
Distribution Systems	Data Room	Not Labeled	Fan Coil Units	EMI			UNK		1999	2017	$5,043	Capital		EST DATE. MINI SPLIT. P610.
Distribution Systems	Phone Room	Not Labeled	Fan Coil Units	EMI			UNK		1999	2017	$5,043	Capital		EST. DATE. MINI SPLIT. P520.

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EQUIPMENT INVENTORY REPORT – Building Only

Subsystem	Space	Equipment Number	Equipment Type	Manufacturer	Model Number	Serial Number	Capacity	UOM	Year Installed	Next Renewal Year	Estimated Replacement Cost	Funding Type	Photo	Assessor Notes
Terminal and Package Units	Elevator Lobby	Not Labeled	Air Cooled Condensing Units				UNK		1999	2019	$4,448	Capital		EST DATE. ABOVE CEILING, NOT OBSERVED.
Terminal and Package Units	Elevator Lobby	Not Labeled	Air Cooled Condensing Units				UNK		1999	2019	$4,448	Capital		EST DATE. ABOVE CEILING. NOT OBSERVED
Terminal and Package Units	Elevator Lobby	Not Labeled	Air Cooled Condensing Units				UNK		1999	2019	$4,448	Capital		ABOVE CEILING. NOT OBSERVED.
Terminal and Package Units	Elevator Lobby	Not Labeled	Air Cooled Condensing Units	EMI			UNK		1999	2019	$4,448	Capital		LOCATED ABOVE CEILING. P530.
Distribution Systems	Data Room	Not Labeled	Exhaust Fans		S0B104	152856	0.25	HP	2000	2020	$5,170	Capital		INLINE. P522. EST. DATE.
Distribution Systems	Generator Room	Not Labeled	Exhaust Fans	GREENHECK FAN CORP	SQB-2415	152855	1	HP	2000	2020	$9,532	Capital		EST DATE. COMBUSTION AIR SF FOR GENERATOR. P565.
Elevators and Lifts	Basement	Not Labeled	Elevators	ARMOR ELEVATOR CO			UNK		1970	2020	$276,585	Capital		LOADING DOCK ELEVATOR. 2 LANDINGS, 5000 LBS. P581.
Elevators and Lifts	Elevator Machine Room	3	Elevators	HAUGHTON ELEVATOR CO	EK	2-4052-17	25	HP	1970	2020	$363,284	Capital		2500 LBS. 6 LANDINGS. P468.
Elevators and Lifts	Elevator Machine Room	2	Elevators	HAUGHTON ELEVATOR CO	EK	2-40152-57	30	HP	1970	2020	$364,807	Capital		3000 LBS. 6 LANDINGS. P467.
Elevators and Lifts	Elevator Machine Room	1	Elevators	HAUGHTON ELEVATOR CO	EK	2-40152-57	25	HP	1970	2020	$363,284	Capital		2500 LBS. 6 LANDINGS. P466.
Other Electrical or Generator	Generator Room	Not Labeled	Generators	SOLAR/IH	T35IN	S423331	225	KW	2000	2020	$126,187	Capital		P560.

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EQUIPMENT INVENTORY REPORT – Building Only

Subsystem	Space	Equipment Number	Equipment Type	Manufacturer	Model Number	Serial Number	Capacity	UOM	Year Installed	Next Renewal Year	Estimated Replacement Cost	Funding Type	Photo	Assessor Notes
Communications and Security	Basement	Not Labeled	Fire Alarm System	FIKE PROTECTION SYSTEMS	10-051-R-1	5831283014	UNK		2008	2023	$18,848	Capital		FM-200 SYSTEM SERVING DATA RM ONLY. EST. DATE. P584. DRY CHEM
Distribution Systems	Roof	Not Labeled	Exhaust Fans	DAYTON	4YY18	11697785 0903	UNK		2003	2023	$7,874	Capital		EST. DATE. UPBLAST. P498
Distribution Systems	Data Room 2	Not Labeled	Air Handling Units	COMPU-AIRE			UNK		2000	2025	$48,803	Capital		EST DATE. CW. P587.
Distribution Systems	Fire Station Bay	Not Labeled	Vehicle Exhaust System	AIRMATION	AMARB-302ND		7.5	HP	2006	2026	$35,170	Capital		EST. DATE. 14 TOTAL UNITS. P527.
Distribution Systems	Fire Station Bay	Not Labeled	Exhaust Fans				UNK		2006	2026	$410	Capital		R/R CEILING EF. P539.
Cooling Generating Systems	Fire Station Bay	Not Labeled	Chillers	TRANE	CGAFC6O4ACA1	C99G14091M	60	TON	1999	2029	$161,460	Capital		EST DATE. P541. CONDENSER DISCHARGES INTO INTERIOR SPACE.
Distribution Systems	Penthouse	Not Labeled	Exhaust Fans	ACCUREX	XIB200-30-X	12384840	UNK		2011	2031	$14,175	Capital		EST. DATE.
Distribution Systems	Data Room	Not Labeled	Air Handling Units	POMONA AIR			UNK		2008	2033	$48,803	Capital		CW. P585. EST DATE.
Electrical Service Distribution	Elec Closet	TSC	Automatic Transfer Switch	ZENITH	ZG3SA02041	1632707-1	200	AMP	2012	2037	$11,478	Capital		P589.
Exterior Doors	Fire Staion	None	Apparatus Doors. Fire Stations Only	CORNELL	sgh 150/21		UNK		2006	2046	$50,011	Capital		3 motor operated overhad roll-up doors. P. 535
Exterior Doors	Fire Staion	None	Apparatus Doors. Fire Stations Only	POWER MASTER			UNK		2006	2046	$16,670	Capital		1 motor operated steel roll-up door. P. 543

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COST MODEL REPORT: Summary of existing Subsystem values and Life Cycle information. Cost Model data does not include operational or community needs such as upgrades, improvements, expansions or building replacements.

DEFINITIONS for COST MODEL REPORT (in order presented in spreadsheet):

Subsystem: Building and Site assets that are inherent to the building operation such as HVAC provides heating, ventilating, and air conditioning and electrical systems provide power to the building.

Priority: The relative importance of correcting the deficiency (ie replacing the subsystem or performing maintenance repairs). The priority levels used in this condition assessment are Critical, Potentially Critical, Necessary, Recommended, and Not Applicable.

Cost per Square Foot: Cost per square foot of building area to replace a subsystem including hard costs (direct construction costs such as labor, materials, and equipment).

Total Cost per Square Foot: Cost per square foot of building area to replace a subsystem including hard costs and soft costs (indirect costs such as professional services, financing, taxes, etc.)

Gross Square Feet (GSF): The enclosed floor area in a building or under a structure measured to the outside of the structure.

Replacement Cost in New Facility: Cost to replace a subsystem as part of replacing the entire facility with a new facility including hard costs and soft costs.

Percent Renewed: An additional replacement cost that applies to stand-alone projects in existing buildings which accounts for disruption and repair of nearby subsystems. Example: when replacing a roof covering, work is also required on hvac units, electrical, plumbing, rainwater drains, etc.

Replacement Cost for Stand-Alone Projects: Cost to replace a subsystem as a stand-alone project in an existing facility.

Last Renovation Year: The year the subsystem was replaced or the original installation year if not renovated.

Life Cycle: The period of time that a building, system or element can be expected to adequately serve its intended function. Life Cycles for each subsystem are adopted from Building Owners and Managers Association (BOMA) International publication “How to Design and Manage Your Preventive Maintenance Program” Copyright 1996.

Override Default Renewal Year: The year that the subsystem will reach the end of its life cycle as overridden by the assessor. This override is used by the assessor in cases where the subsystem is anticipated to operate shorter or longer than its life cycle.

Next Renewal Year: The year that the subsystem will reach the end of its life cycle. Calculated by adding the Life Cycle to the Last Renovation Year.

Backlog: The cost to correct maintenance or life cycle subsystem deficiencies. Backlog costs do not include future needs, capital renewal, improvements, expansion, or upgrades.

Capital Renewal: The cost to replace a subsystem that will reach the end of its life cycle in future years according to the anticipated life cycle.

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COST MODEL REPORT – Site Only

Subsystem	Priority	Cost Per Square Foot	Total Cost Per Square Foot	Gross Square Feet	Replacement Cost in New Facility (Plant Replacement Value)	Percent Renewed	Replacement Cost for Stand-Alone projects	Last Reno Year	Life Cycle	Override Default Renewal Year	Next Renewal Year	Backlog	Capital Renewal
Totals		$10.14	$15.21	217,669	$3,310,745.49		$4,871,541.06					$3,671,423.03	$1,072,965.28
Site Earthwork	Recommended	$0.36	$0.54	217,669	$117,541.26	145	$170,434.83	1970	100	0	2070	$0.00	$0.00
Roadways	Not Applicable	$0.00	$0.00	217,669	$0.00	155	$0.00	0	50	0	2020	$0.00	$0.00
Parking Lots	Recommended	$1.47	$2.20	217,669	$478,871.80	155	$742,251.29	1970	50	2014	2014	$742,251.29	$0.00
Pedestrian Paving	Recommended	$0.89	$1.34	217,669	$291,676.46	155	$452,098.51	1970	50	0	2020	$0.00	$524,117.80
Site Development	Recommended	$1.61	$2.42	217,669	$526,758.98	145	$763,800.52	1970	30	0	2000	$763,800.52	$0.00
Landscaping	Recommended	$0.19	$0.28	217,669	$60,947.32	135	$82,278.88	1970	10	0	1980	$82,278.88	$0.00
Water Supply	Recommended	$0.30	$0.45	217,669	$97,951.05	145	$142,029.02	1970	50	0	2020	$0.00	$164,654.24
Sanitary Sewer	Recommended	$0.70	$1.05	217,669	$228,552.45	145	$331,401.05	1970	50	0	2020	$0.00	$384,193.24
Storm Sewer	Not Applicable	$0.00	$0.00	217,669	$0.00	145	$0.00	1970	0	0	1970	$0.00	$0.00
Heating Distribution	Not Applicable	$0.00	$0.00	217,669	$0.00	145	$0.00	0	0	0	1970	$0.00	$0.00
Cooling Distribution	Not Applicable	$0.00	$0.00	217,669	$0.00	145	$0.00	0	0	0	1970	$0.00	$0.00
Fuel Distribution	Recommended	$0.22	$0.33	217,669	$71,830.77	145	$104,154.62	1990	50	0	2040	$0.00	$0.00
Electrical Distribution	Recommended	$2.91	$4.36	217,669	$949,036.84	145	$1,376,103.42	1970	30	0	2000	$1,376,103.42	$0.00
Site Lighting	Recommended	$0.61	$0.92	217,669	$200,255.48	145	$290,370.45	1970	30	0	2000	$290,370.45	$0.00
Site Communications and Security	Recommended	$0.88	$1.32	217,669	$287,323.08	145	$416,618.47	2000	10	0	2010	$416,618.47	$0.00

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COST MODEL REPORT – Site Only

Subsystem	Priority	Cost Per Square Foot	Total Cost Per Square Foot	Gross Square Feet	Replacement Cost in New Facility (Plant Replacement Value)	Percent Renewed	Replacement Cost for Stand-Alone projects	Last Reno Year	Life Cycle	Override Default Renewal Year	Next Renewal Year	Backlog	Capital Renewal
Service and Pedestrian Tunnels	Not Applicable	$0.00	$0.00	217,669	$0.00	145	$0.00	0	0	0	1970	$0.00	$0.00
Other Site Construction	Not Applicable	$0.00	$0.00	217,669	$0.00	145	$0.00	0	0	0	1970	$0.00	$0.00

FORECAST REPORT: Summary of Backlog and 20 year capital renewal forecast. Subsystem End-Of-Life Cycle Replacement Costs for Stand-Alone Projects are included in the year that the subsystem reaches the end of its Life Cycle. Inflation is assumed to be 3%. This Forecast does not include operational or community needs such as upgrades, improvements, expansions or building replacements. This Forecast is not a funding plan or capital plan. This forecast can be combined with operational or community input to develop an asset management plan.

DEFINITIONS for FORECAST REPORT:

Subsystem: Building and Site assets that are inherent to the building operation such as HVAC provides heating, ventilating, and air conditioning and electrical systems provide power to the building.

Year column 2015: The Backlog of subsystems that have reached the end of their Life Cycle. Subsystems are still in operation and failure becomes more likely as a subsystem passes the end of its Life Cycle.

Year columns 2016 through 2035: The Capital Renewal cost of subsystems that will reach the end of their Life Cycle in the future.

FORECAST REPORT – Site Only

Subsystem	2015($)	2016($)	2017($)	2018($)	2019($)	2020($)	2021($)	2022($)	2023($)	2024($)	2025($)	2026($)	2027($)	2028($)	2029($)	2030($)	2031($)	2032($)	2033($)	2034($)	2035($)
Totals	**$3,671,423**	**$0**	**$0**	**$0**	**$0**	**$1,072,965**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
SITE PREPARATIONS	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Site Earthwork	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
SITE IMPROVEMENTS	**$1,588,331**	**$0**	**$0**	**$0**	**$0**	**$524,118**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Landscaping	$82,279	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Parking Lots	$742,251	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Pedestrian Paving	$0	$0	$0	$0	$0	$524,118	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Roadways	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Site Development	$763,801	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
SITE CIVIL OR MECHANICAL UTILITIES	**$0**	**$0**	**$0**	**$0**	**$0**	**$548,847**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Cooling Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fuel Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Heating Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sanitary Sewer	$0	$0	$0	$0	$0	$384,193	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Storm Sewer	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Water Supply	$0	$0	$0	$0	$0	$164,654	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
SITE ELECTRICAL UTILITIES	**$2,083,092**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Electrical Distribution	$1,376,103	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Site Communications and Security	$416,618	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Site Lighting	$290,370	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
OTHER SITE CONSTRUCTION	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Other Site Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Service and Pedestrian Tunnels	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

DEFICIENCY REPORT: Summary of individual deficiencies that are included in the Cost Model Backlog and Capital Renewal costs. This deficiency report does not include operational or community needs such as upgrades, improvements, expansions or building replacements.

DEFINITIONS for DEFICIENCY REPORT (in order presented in spreadsheet):

Year: The year that the subsystem will reach the end of its Life Cycle or the year that the maintenance repairs are assessed. The year for a particular deficiency corresponds with the year in the Forecast Report and the Next Renewal Year in the Cost Model Report.

Priority: The relative urgency of completing the work as compared to other work within the inventory based on the impact of failure of the Subsystem. The categories included from highest priority to lowest priority are Critical, Potentially Critical, Necessary, and Recommended. Critical and Potentially Critical work could affect the health and safety of the building if not corrected. Necessary and Recommended work could result in minor impact to the building if not corrected. The Not Applicable category includes work that is not priority ranked because it is not based on failure and operations impact (eg. accessibility improvements – new toilets, wider access hallways).

Subsystem: Building and Site assets that are inherent to the building operation such as HVAC provides heating, ventilating, and air conditioning and electrical systems provide power to the building.

Correction: A description of the work needed to fix the deficiency. Examples of corrections include Replace, Repair, Clean, Patch, etc.

Photo: Photograph of subsystem. Some photographs are stock photos of typical subsystems.

Location: Location includes Floor location, Room location, ID if available, and Type which indicates component of subsystem with deficiency.

Funding Type: Funding required to correct deficiency. Capital funding is indicated if entire subsystem is to be replaced. Maintenance funding is indicated for partial replacements, repairs, cleaning, patching, etc.

Cost: The cost to correct the deficiency. Costs are included in the Cost Model based on subsystem and the Forecast based on subsystem and year. Current year deficiencies are included in the Capital or Maintenance Backlog.

DEFICIENCY REPORT – Site Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Recommended	Electrical Distribution	Replace		1970 System	Capital	$1,376,103

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Site Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Recommended	Site Development	Replace		1970 System	Capital	$763,801
2015	Recommended	Parking Lots	Replace		1970 System	Capital	$742,251
2015	Recommended	Site Communications and Security	Replace		1970 System	Capital	$416,618

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Site Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2015	Recommended	Site Lighting	Replace		1970 System	Capital	$290,370
2015	Recommended	Landscaping	Replace		1970 System	Capital	$82,279
2020	Recommended	Pedestrian Paving	Replace		1970 System	Capital	$524,118

Facility # 000008 Office. City Operations Building. COB. Downtown

DEFICIENCY REPORT – Site Only

Year	Priority	Subsystem	Correction	Photo	Location	Funding Type	Cost
2020	Recommended	Sanitary Sewer	Replace		1970 System	Capital	$384,193
2020	Recommended	Water Supply	Replace		1970 System	Capital	$164,654

BORREGO SOLAR

BORREGO SOLAR – FACILITY SOLAR ASSESSMENT: TRIP IV

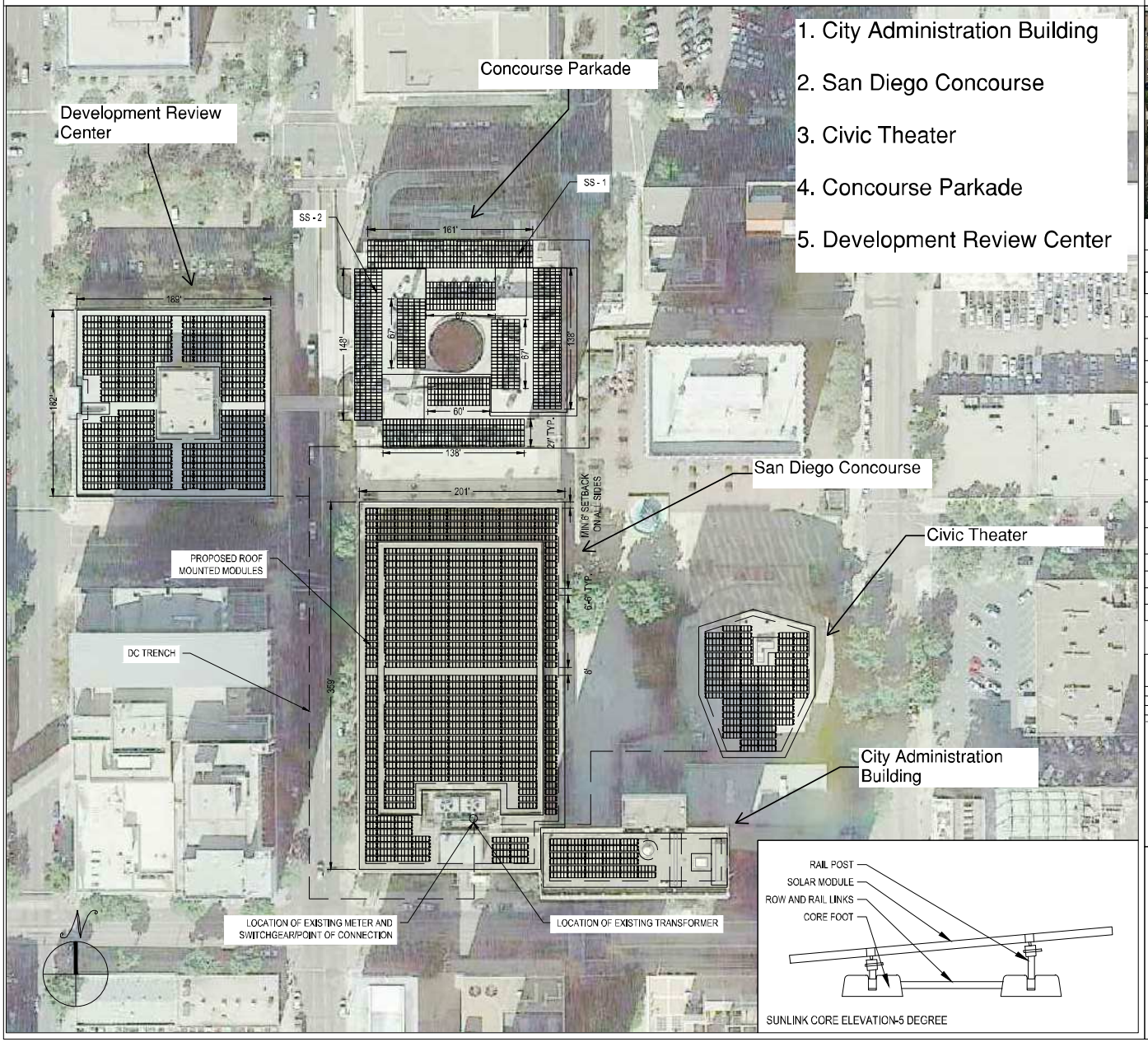
Site Name: Development Review Center

Criteria 1: Facility is connected to the same meter as the City Administration Building

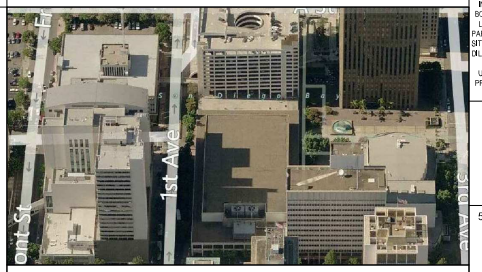
The proposed system to be installed on the roofs of the City Administration Building, San Diego Concourse Building, Civic Theater, and Development Review Center as well as on top of the Concourse Parkade parking structure. These buildings are connected to the same electrical system of the City Administration Building and have the physical space collectively to support larger arrays but this may be impractical because of the multiple shading impacts coming from the surrounding buildings. Please refer to the City Administration Building report for survey results and recommended system design for this building.

Clarification: In assessing the feasibility of installing a solar power system, a survey is conducted to investigate the condition and location of the existing electrical meter, switchgear, and transformer. The survey process also includes determining the most ideal location of where the solar modules would be installed and how it would connect to the existing electrical system. After the survey is conducted, a preliminary design phase incorporates all the findings from the survey as well as a full analysis on the recommended system size based on the electrical utility usage. This method ensures the most cost-effective solution for a site with multiple buildings. In this case, the system will be installed on the roofs of the City Administration Building, San Diego Concourse Building, Civic Theater, and Development Review Center as well as on top of the Concourse Parkade parking structure.

CITY OF SAN DIEGO SOLAR ASSESSMENT - PV PROJECT



PROJECT INFORMATION

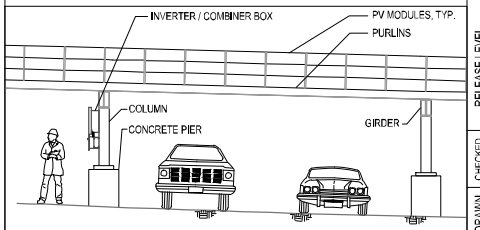


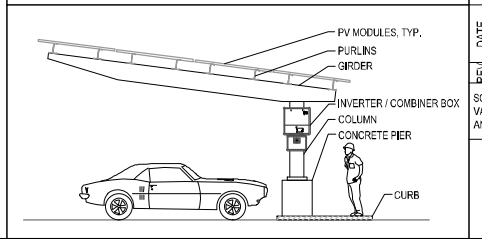
PROPOSAL SPECIFICATIONS

SYSTEM SIZE DC (kW)	1,367.300		
SYSTEM SIZE AC (kW)	1100		
DC TO AC RATIO	1.24		
MODULE INFORMATION	(4,972) LG 275		
STRING INFORMATION	(226) PARALLELED STRINGS OF (22)		
INVERTER INFORMATION	(2) SMA SC500CP-US		
INTERCONNECTION VOLTAGE	TBD		
TRANSFORMER	NONE		
RACKING DETAILS	ROOF MOUNTED SUNLINK CORE & SOLAR SUPPORT STRUCTURES		
ARRAY PITCH (METER)	1.98	SITE LATITUDE	32.71 N
ASCE7-05 WIND SPEED (MPH)	85	GROUND SNOW LOAD (PSF)	0

ARRAY INFORMATION

ARRAY NO.	AZIMUTH	TILT ANGLE	NO. OF MODULES	NO. OF STRINGS	KW DC	INVERTER CONNECTED
ROOF-1	180°	5°	3718	169	1022.450	(2) 500CP
SS-1	180°	7.5°	638	29	175.450	
SS-2	270°	7.5°	616	28	169.400	
TOTAL	-	-	4,972	226	1367.300	-





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WWW.BORREGOSOLAR.COM

CITY OF SAN DIEGO SOLAR ASSESSMENT
202 C ST,
SAN DIEGO, CA 92101

PROJECT NUMBER:
P-SD-005641

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
1	08/11/14	RX	JZ	PROPOSAL LAYOUT

SCALE: 1"=100'
VALID ONLY WHEN PLOTTED
ANSI FULL BLEED B 11" X 17"

PV-1
L1 PROPOSAL LAYOUT