



THE CITY OF SAN DIEGO

Report to the City Council

DATE ISSUED: July 24, 2017

REPORT NO: 17-043

ATTENTION: Honorable Council President Myrtle Cole and Members of the City Council

SUBJECT: Balboa Park General Fund Facilities Condition Assessment

REQUESTED ACTION:

This report is for information purposes only.

STAFF RECOMMENDATION:

Accept the report.

BACKGROUND:

In December 2013, City Council authorized (Resolution No. 308581) the award of three Facilities Condition Assessment (FCA) consultant agreements for the purpose of assessing the condition of the City's facilities including General Fund (GF) Buildings, Developed Parks and Public Utilities Department Buildings.

A total of 560 City-occupied General Fund facilities and 133 City leased General Fund facilities were assessed in FY14-FY16 to identify the overall backlog of maintenance and capital need for the facilities. The results of the Facility Condition Assessment (FCA) were presented to City Council and approved several times over the past 3 years. Out of the 693 facilities 118 are located in Balboa Park.

Balboa Park is a 1,200 acre urban cultural park with open spaces, playgrounds, walkways and hundreds of facilities. This report outlines the condition of 118 City-occupied and City leased General Fund facilities. See Table 4.0

Condition Assessment Methodology:

During the FCA site visit at a facility, each subsystem listed in Table 1.0 below is inventoried and evaluated for repairs and remaining useful life. Remaining useful life is determined from equipment tag data, maintenance records, and standard lifecycle charts included in the FY 14-FY16 FCA report. The inventory information along with the repairs and remaining useful life for each subsystem are used to estimate the maintenance and capital backlog and to project future capital renewal for each facility in the inventory.

Subsystems Assessed			
Electrical	Foundation	Floor Finishes	Partitions
Fire Protection	Basement	Plumbing (Fixtures, Rain Water)	Interior Doors
HVAC	Floor/Roof Structure	Equipment (Appliances, etc.)	Interior Fittings
Plumbing (water, sewer)	Walls, Windows, Doors	Structures (Awnings, etc.)	Stair Finishes
Site Utilities	Roofing	Site Earthwork	Wall Finishes
Conveying (Elevators)	Stairs	Site Roadways, Walkways	Ceiling Finishes
		Site Utilities (Water, Storm Water)	

Table – 1.0

Reliability Levels:

Facility subsystems are not all equal in terms of their ability to provide a facility that is reliable (e.g., electrical system vs. paint). Therefore, the facility subsystems have been categorized into three reliability levels based on their impact to building operations as shown in Table 2.0 below. The three reliability levels are Level 1 Operations Impacts, Level 2 Deterioration, and Level 3 Appearance.

Reliability Levels by Building Subsystem			
Reliability Level 1 Operations Impacts	Reliability Level 2 Deterioration		Reliability Level 3 Appearance
Electrical	Foundation	Floor Finishes	Partitions
Fire Protection	Basement	Plumbing (fixtures, rain water)	Interior Doors
HVAC	Floor/Roof Structure	Equipment (Appliances, etc.)	Interior Fittings
Plumbing (water, sewer)	Walls, Windows, Doors	Structures (Awnings, etc.)	Stair Finishes
Site Utilities	Roofing	Site Earthwork	Wall Finishes
Conveying (Elevators)	Stairs	Sire Roadways, Walkways	Ceiling Finishes

Table – 2.0

The definitions of the three reliability levels are indicated below:

- **Level 1 Operations Impacts** represent the subsystems that can lead to partial or full shut-downs of the facility if the subsystems are allowed to exceed the end of their useful life or are not properly maintained (e.g., electrical, HVAC, sewer/water plumbing).
- **Level 2 Deterioration** represents subsystems that will shorten the life of the asset and cause deterioration to other subsystems if allowed to exceed the end of their useful life or are not properly maintained (e.g., roofing, windows, doors, walls).
- **Level 3 Appearance** represents subsystems that provide the appearance and quality of the facility (e.g., interior wall finishes, built-in furnishings, cabinets, interior doors).

Terminology:

The **maintenance backlog** for a facility is a summation of the estimated cost of repairs for each subsystem within the facility. The **capital backlog** is a summation of the estimated cost of replacement of the subsystems that have no remaining useful life within the facility. Subsystems that have no remaining useful life but are still in service, will eventually need to be replaced due to failure or deterioration. **Capital renewal** for a particular year is a summation of the estimated cost of replacement of the subsystems that have reached the point where they have no remaining useful life in the particular year.

Condition Ratings and Facility Condition Index (FCI):

Facility Condition Index is an industry-standard calculation of a facility's condition that can be used to compare the condition of facilities within an inventory that have been assessed with a consistent methodology. The FCI that has been implemented (starting with the FY2014 assessment) is a modified standard FCI which incorporates the cost of the maintenance backlog and capital backlog. The FCI formula used for the FY14 through FY16 assessments is shown below:

$$\text{FCI} = \frac{(\text{Estimated Cost of Maintenance Backlog} + \text{Capital Backlog})}{\text{Plant Replacement Value (PRV)}}$$

The Facility Condition Index ratings are classified in 3 categories, Good, Fair and Poor and are defined as shown below:

Good = 0% - 20%
Fair = 21% - 29%
Poor = 30% ≥ 30%

Asset Functions:

All GF buildings have been grouped in to categories by Service Group function. The asset type groupings are for analyzing similar assets and assigning appropriate service levels based on the use of the asset.

The 560 GF asset type were grouped into 3 asset function, public, semi-public and office/work yard/operations. In addition, two (2) asset function (commercial & residential) were added to the 133 leased facilities as shown in table 3.0.

Service Level for City-Occupied and Leased GF Facilities:

In November 29, 2016, proposed service levels were presented and approved by the City Council for City Occupied and Leased General Fund facilities. The FCA report combined an inventory of 693 City-occupied and leased General Fund facilities.

The service level for public and semi-public City-occupied and leased GF facilities is Good – FCI 15 and for office/work yard/operations and commercial/residential City-occupied and leased GF facilities is Good – FCI 20.

Approved Service Level (FCI 15/15/20/20):					
City-Occupied & Leased Public & Semi-Public – FCI 15 Good					
City-Occupied & Leased Office/Work Yard/Operations & Commercial/Residential– FCI 20 Good					
Asset Function	No. Bldgs. Assessed FY14-16	Square Footage Assessed FY14-16	Avg. ACTUAL FCI	Max.¹ GOAL FCI	Necessary Reinvestment⁴
City-Occupied & Leased Public Facilities	451	4.7M	25 Fair	15 Good	\$432.9M
City-Occupied & Leased Semi-Public Facilities	71	1.3M	31 Poor	15 Good	\$178.8M
City-Occupied & Leased Office/Work Yard/Operations	149	1.5M	38 Poor	20 Good	\$214.6M
City-Occupied & Leased Commercial/Residential	10	0.1M	10 Good	20 Good	\$2.4M
City-Occupied & Leased No Service Level	12	0.05M	49 Poor	N/A ²	\$0.0M ²
Total City-Occupied & Leased GF Facilities	693	7.7M	29 Fair	12 Good³	\$829M⁴
Total City-Occupied & Leased GF Facilities (minus CAB, COB, City Concourse, Parkade, Theatre, Restrooms, Restaurant)	687	6.5M	23 Fair	11 Good³	\$508M⁴

Table – 3.0

Note 1 – Necessary Reinvestments are based on improving the FCI of each facility within the Asset Function to the Maximum Goal FCI.

Note 2 – Leased facilities with No Service Level receive no Max Goal FCI or Reinvestment.

Note 3 – Represents an average FCI for the inventory.

Note 4 – Necessary Reinvestment amounts do not include future capital renewal, improvements, expansion, upgrades or facility replacements.

Achieving this approved Service Level requires a reinvestment of \$829M for the 693 City-occupied and leased GF facilities to improve the average FCI from 29 Fair to 12 Good with a maximum FCI for each building of FCI 15 – Good. -This amount does not include future capital renewal, improvements, expansion, upgrades, or rebuild.

Balboa Park Condition Assessment:

One hundred and eighteen (118) GF facilities were assessed in Balboa Park. The total assessed square footage is 1.63 million square foot and the age of the buildings ranges between 3-112 years. See attachment A, B and C for Balboa Park FCA for City-occupied, leased as well as City-occupies offices/work yard and operations facilities. The attachments provide the description of each facility, facility condition index (FCI), age, facility asset group and asset function.

The 118 Balboa Park public facilities include 61 leased, 39 City-occupied and 18 other types of facilities. See Table 4.0

Balboa Park Venues			
Asset Function: Leased Public Facilities (61 facilities)			
23 Cultural Centers	13 Museums	6 Art Studios	4 Theatres
5 Clubhouses	1 Athletic Facility	1 Carousel	1 Community Center
1 Concession Stand	1 Exhibit Hall	1 Lath Structure	1 Performing Arts Center
1 Railroad Station	2 Retail Shops		
Asset Function: City-Occupied Public Facilities (39)			
21 Comfort Stations		1 Gymnasium	
5 Kiosks		1 Recreation Center	
3 Club Houses		1 Pool	
1 Fire Building		6 Other types of facilities	
Asset Function: City- Occupied Office, Work Yard, and Operations (18)			
6 Nurseries		1 Horse stables	
4 Toolsheds		1 Yard Restroom	
5 Offices and Crew Rooms		1 Storage	

Table -4.0

Balboa Park Facility Service Levels

The approved service levels for all Balboa Park facilities are shown in table 5.0 as FCI Goals with associated reinvestment amounts.

Balboa Park Facilities	# Facilities	SF (Million sf)	Total Backlog (\$ Millions)	Average FCI	Service Level	
					FCI Goal	Proposed Reinvestment (\$ Millions)
Balboa Park Public Facilities	100	1.54	\$189.9	18	15	\$73.9
Leased Public	61	1.35	\$158.9	17	15	\$60.7
City-Occupied Public	39	0.19	\$30.9	26	15	\$13.2
City-Occupied Office/Work Yard/Operations	18	0.09	\$13.3	32	20	\$5.3
Total Balboa Park	118	1.63	\$203.2	19	15/20	\$79.2

Table 5.0

Achieving the above approved service levels requires a total reinvestment of \$79.2 Million. A proposed reinvestment of \$73.9 million for 100 Balboa Park Public Facilities (City-Occupied and Leased) is necessary to improve the average FCI of 18- Good to FCI 15- Good. For City Occupied Office/Work Yard/Operations a reinvestment of \$5.3 million is needed to improve the average FCI of 32-Poor to FCI 20 - Good. It is important to note that the average FCI's reported are for 2016 and that the FCI's change over time due to deterioration of the facilities. In addition, the total reinvestment amount of \$79.2 million does not include future capital renewal, improvements, expansion, upgrades, or rebuild. Therefore, additional funding may be required to maintain these goal FCI's over time.

CITY STRATEGIC PLAN GOAL(S)/OBJECTIVES:

Goal # 2 Objective #1: Protect lives, property, and the environment through timely and effective response in all communities
Goal #2 Objective #3: Invest in infrastructure
Goal #2 Objective #4: Foster services that improve quality of life
Goal #3 Objective #1: Create dynamic neighborhoods that incorporate mobility, connectivity and sustainability

FISCAL CONSIDERATIONS: None

EQUAL OPPORTUNITY CONTRACTING INFORMATION (if applicable): N/A

PREVIOUS COUNCIL and/or COMMITTEE ACTIONS:

City Council 12/9/2013 Resolution 308581; FCA Consultant Contracts
Infrastructure Committee 1/21/2015; FY 2016 – 2020 Consolidated Multi-Year Capital Planning Report
Infrastructure Committee 6/3/2015; FY14 Facilities Condition Assessment Update
City Council 7/13/2015; FY14 Facilities Condition Assessment Update
Infrastructure Committee 12/9/2015; FY17 – FY21 Five-year Capital Infrastructure Planning Outlook
Infrastructure Committee 3/16/2016; FY16 Facilities Condition Assessment Update
City Council 4/12/2016; FY16 Facilities Condition Assessment Update
City Council 3/14/2017; FY 16 Facilities Condition Assessment Report for Leased General Fund (GF)


COMMUNITY PARTICIPATION AND OUTREACH EFFORTS: N/A

KEY STAKEHOLDERS AND PROJECTED IMPACTS:

Key stakeholders include City of San Diego residents and employees. Impacts include improving conditions of City-occupied and leased GF facilities.



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Public Works Department



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- Attachments:
1. Facilities Condition Assessment FY14 to FY16- Balboa Park Facilities-Leased (Non-City Occupied)
 2. Facilities Condition Assessment FY14 to FY16- Balboa Park Facilities – City Occupied
 3. Facilities Condition Assessment FY14 to FY16- Balboa Park Facilities – City Occupied Office/Work Yard/Operations

City of San Diego
 Facilities Condition Assessment FY14 to FY16
 Balboa Park Facilities - Leased

Facility No.	Description	District	Actual Assessed SF	Asset Group	Department	Asset Function	Asset Type	Year Built	Age	Plant Replacement Value	Actual FCI	Proposed Goal FCI	Proposed Reinvestment Amount
000700	Art Studio. Spanish Village 1. Studios 1 - 6.	3	3,350	General Fund	Park And Recreation	Leased Public	Studio	1935	82	\$1,187,575	55	15	\$475,030
000701	Art Studio. Spanish Village 2. Mineral and Gem Society Studio	3	4,050	General Fund	Park And Recreation	Leased Public	Studio	1972	45	\$1,204,916	34	15	\$228,934
000702	Art Studio. Spanish Village 3. Studios 30 - 41	3	4,205	General Fund	Park And Recreation	Leased Public	Studio	1935	82	\$1,394,210	47	15	\$446,147
000703	Art Studio. Spanish Village 4. Studios 20 - 29	3	5,370	General Fund	Park And Recreation	Leased Public	Studio	1935	82	\$2,002,849	33	15	\$360,513
000704	Art Studio. Spanish Village 5. Studios 12 - 19	3	4,624	General Fund	Park And Recreation	Leased Public	Studio	1935	82	\$1,885,344	44	15	\$546,750
000705	Art Studio. Spanish Village 6. Studios 7 - 10	3	3,395	General Fund	Park And Recreation	Leased Public	Studio	1935	82	\$1,180,951	51	15	\$425,142
000648	Carousel. Balboa Park Carousel	3	3,781	General Fund	Park And Recreation	Leased Public	Carousel	1957	60	\$414,662	38	15	\$95,372
000485	Clubhouse and Concession Stand. Tennis Lounge	3	2,524	General Fund	Park And Recreation	Leased Public	Clubhouse	1968	49	\$1,555,566	10	15	\$0
000628	Clubhouse. Balboa Park Tennis Club	3	1,906	General Fund	Park And Recreation	Leased Public	Clubhouse	1960	57	\$950,065	54	15	\$370,525
000606	Clubhouse. Lawn Bowling	3	840	General Fund	Park And Recreation	Leased Public	Clubhouse	1948	69	\$236,905	26	15	\$26,060
000602	Clubhouse. Redwood Shuffleboard and Bridge	3	3,400	General Fund	Park And Recreation	Leased Public	Clubhouse	1947	70	\$1,932,764	60	15	\$869,744
000644	Community Center and Retail Shop. United Nations Building	3	2,110	General Fund	Park And Recreation	Leased Public	Community Center	1935	82	\$1,298,747	19	15	\$51,950
000671	Community Center. Cultural de la Raza Center Tank - North Pepper Grove	3	9,750	General Fund	Park And Recreation	Leased Public	Cultural Center	1940	77	\$4,957,290	52	15	\$1,834,197
000672	Community Center. WorldBeat Cultural Center Tank - South Pepper Grove	3	9,750	General Fund	Park And Recreation	Leased Public	Cultural Center	1940	77	\$6,426,225	13	15	\$0
000015	Concession Stand. Balboa Park	3	1,728	General Fund	Park And Recreation	Leased Public	Concession Stand	1973	44	\$971,257	63	15	\$466,203
001066	Exhibit Hall and Theatre. Reuben H. Fleet Science Center	3	94,000	General Fund	Park And Recreation	Leased Public	Exhibit Hall and Theatre	1973	44	\$75,550,620	12	15	\$0
000636	Exhibit Hall. Hall Of Champions Gymnasium Federal Building	3	67,861	General Fund	Park And Recreation	Leased Public	Athletic Facility	1936	81	\$52,280,114	17	15	\$1,045,602
000706	Exhibit Hall. Photographic Arts	3	1,764	General Fund	Park And Recreation	Leased Public	Cultural Center	1934	83	\$924,089	71	15	\$517,490
000622	Garden Building. Botanical Building (not including outside pond and gardens)	3	14,460	General Fund	Park And Recreation	Leased Public	Lath Structure	1914	103	\$2,576,338	18	15	\$77,290
000662	International Cottage. China House Of Pacific Relations	3	640	General Fund	Park And Recreation	Leased Public	Cultural Center	1935	82	\$197,517	48	15	\$65,181
000654	International Cottage. Czechoslovakia House Of Pacific Relations	3	832	General Fund	Park And Recreation	Leased Public	Cultural Center	1935	82	\$256,697	37	15	\$56,473
000666	International Cottage. Denmark House Of Pacific Relations	3	558	General Fund	Park And Recreation	Leased Public	Cultural Center	1935	82	\$172,450	40	15	\$43,112
000656	International Cottage. England House Of Pacific Relations	3	594	General Fund	Park And Recreation	Leased Public	Cultural Center	1935	82	\$188,173	43	15	\$52,689
000655	International Cottage. Finland House Of Pacific Relations	3	434	General Fund	Park And Recreation	Leased Public	Cultural Center	1935	82	\$143,389	45	15	\$43,017
000659	International Cottage. France and Phillipine House Of Pacific Relations	3	476	General Fund	Park And Recreation	Leased Public	Cultural Center	1935	82	\$158,637	47	15	\$50,764
000657	International Cottage. Germany House Of Pacific Relations	3	448	General Fund	Park And Recreation	Leased Public	Cultural Center	1935	82	\$129,763	40	15	\$32,441
010222	International Cottage. House of Hospitality and Café	3	56,245	General Fund	Park And Recreation	Leased Public	Cultural Center	1996	21	\$42,021,202	16	15	\$420,212
010059	International Cottage. Hungary and Czechoslovakia House Of Pacific Relations	3	936	General Fund	Park And Recreation	Leased Public	Cultural Center	1995	22	\$302,946	22	15	\$21,206
010323	International Cottage. Iran House of Pacific Relations	3	930	General Fund	Park And Recreation	Leased Public	Cultural Center	2002	15	\$289,490	3	15	\$0

City of San Diego
Facilities Condition Assessment FY14 to FY16
Balboa Park Facilities - Leased

Facility No.	Description	District	Actual Assessed SF	Asset Group	Department	Asset Function	Asset Type	Year Built	Age	Plant Replacement Value	Actual FCI	Proposed Goal FCI	Proposed Reinvestment Amount
000665	International Cottage. Ireland House Of Pacific Relations	3	478	General Fund	Park And Recreation	Leased Public	Cultural Center	1935	82	\$161,392	37	15	\$35,506
000660	International Cottage. Israel House Of Pacific Relations	3	673	General Fund	Park And Recreation	Leased Public	Cultural Center	1935	82	\$216,773	30	15	\$32,516
000634	International Cottage. Italy House of Pacific Relations and Hall of Nations Auditorium	3	4,736	General Fund	Park And Recreation	Leased Public	Cultural Center	1914	103	\$2,410,150	51	15	\$867,654
000661	International Cottage. Norway House Of Pacific Relations	3	686	General Fund	Park And Recreation	Leased Public	Cultural Center	1935	82	\$213,044	41	15	\$55,391
000663	International Cottage. Poland House Of Pacific Relations	3	596	General Fund	Park And Recreation	Leased Public	Cultural Center	1935	82	\$170,706	34	15	\$32,434
010395	International Cottage. Puerto Rico House of Pacific Relations	3	936	General Fund	Park And Recreation	Leased Public	Cultural Center	2006	11	\$275,147	1	15	\$0
000669	International Cottage. Scotland House Of Pacific Relations	3	444	General Fund	Park And Recreation	Leased Public	Cultural Center	1935	82	\$151,511	42	15	\$40,908
000664	International Cottage. Sweden House Of Pacific Relations	3	596	General Fund	Park And Recreation	Leased Public	Cultural Center	1935	82	\$183,103	35	15	\$36,621
000667	International Cottage. Ukraine and Russia House Of Pacific Relations	3	600	General Fund	Park And Recreation	Leased Public	Cultural Center	1935	82	\$184,500	32	15	\$31,365
000668	International Cottage. USA House Of Pacific Relations	3	456	General Fund	Park And Recreation	Leased Public	Cultural Center	1935	82	\$159,887	57	15	\$67,153
000688	Museum. Casa de Balboa (including Electrical Room)	3	155,000	General Fund	Park And Recreation	Leased Public	Museum	1949	68	\$115,010,000	25	15	\$11,501,000
010099	Museum. House of Charm. Mingei Museum and Old Globe Theater Auxiliary Space	3	75,000	General Fund	Park And Recreation	Leased Public	Museum	1996	21	\$58,983,750	5	15	\$0
900607	Museum. Marston Carriage House	3	1,900	General Fund	Park And Recreation	Leased Public	Museum	1905	112	\$664,069	68	15	\$351,957
900606	Museum. Marston Lath House	3	300	General Fund	Park And Recreation	Leased Public	Museum	1905	112	\$41,742	27	15	\$5,009
001216	Museum. Marston Mansion	3	8,216	General Fund	Park And Recreation	Leased Public	Museum	1905	112	\$2,815,377	63	15	\$1,351,381
000627	Museum. San Diego Air and Space Museum	3	95,900	General Fund	Park And Recreation	Leased Public	Museum	1935	82	\$72,422,721	36	15	\$15,208,771
000649	Museum. San Diego Automotive	3	38,180	General Fund	Park And Recreation	Leased Public	Museum	1979	38	\$29,684,950	43	15	\$8,311,786
000641	Museum. San Diego Museum of Art	3	100,483	General Fund	Park And Recreation	Leased Public	Museum	1925	92	\$79,066,053	7	15	\$0
000640	Museum. San Diego Museum of Man	3	72,000	General Fund	Park And Recreation	Leased Public	Museum	1915	102	\$48,245,040	15	15	\$0
000630	Museum. San Diego Museum of Man. California Tower	3	20,224	General Fund	Park And Recreation	Leased Public	Museum	1913	104	\$6,280,159	0	15	\$0
000643	Museum. San Diego Natural History Museum	3	171,000	General Fund	Park And Recreation	Leased Public	Museum	1932	85	\$127,634,400	1	15	\$0
000169	Museum. Timken Museum of Art	3	13,416	General Fund	Park And Recreation	Leased Public	Museum	1965	52	\$9,999,616	7	15	\$0
009886	Museum. Veterans Museum and Memorial Center (on Park Blvd. and Presidents Way)	3	20,000	General Fund	Park And Recreation	Leased Public	Museum	1945	72	\$13,603,000	49	15	\$4,625,020
001398	Pavilion. Spreckels Organ Pavilion	3	12,104	General Fund	Park And Recreation	Leased Public	Performing Arts Center	1914	103	\$10,231,148	5	15	\$0
000715	Railroad Station. Balboa Park Toy Railroad Station	3	98	General Fund	Park And Recreation	Leased Public	Railroad Station	1950	67	\$46,816	77	15	\$29,026
001370	Retail Shop. Tennis Court Pro Shop	3	808	General Fund	Park And Recreation	Leased Public	Retail	1982	35	\$244,582	53	15	\$92,941
000618	Senior Center. Morley Field Clubhouse	3	1,548	General Fund	Park And Recreation	Leased Public	Clubhouse	1948	69	\$828,582	64	15	\$406,005
000626	Theatre. Balboa Park Starlight Bowl	3	16,046	General Fund	Park And Recreation	Leased Public	Theatre	1935	82	\$10,096,464	60	15	\$4,543,409
000505	Theatre. Casa Del Prado Building (including Patios)	3	169,170	General Fund	Park And Recreation	Leased Public	Theatre	1916	101	\$87,817,839	11	15	\$0

City of San Diego
 Facilities Condition Assessment FY14 to FY16
 Balboa Park Facilities - Leased

Facility No.	Description	District	Actual Assessed SF	Asset Group	Department	Asset Function	Asset Type	Year Built	Age	Plant Replacement Value	Actual FCI	Proposed Goal FCI	Proposed Reinvestment Amount
900049	Theatre. Lowell Davis Festival	3	4,515	General Fund	Park And Recreation	Leased Public	Theatre	1985	32	\$2,516,796	15	15	\$0
000638	Theatre. Old Globe Theatre	3	40,027	General Fund	Park And Recreation	Leased Public	Theatre	1955	62	\$27,787,944	31	15	\$4,446,071
000639	Theatre. Old Globe Theatre. Old Curio Shop and offices	3	20,520	General Fund	Park And Recreation	Leased Public	Retail and Offices	1947	70	\$17,016,620	1	15	\$0
61			1,347,617			Leased Public				\$927,954,633	17%	11%	\$60,693,968

City of San Diego
Facilities Condition Assessment FY14 to FY16
Balboa Park Facilities - City Occupied

Facility No.	Description	District	Actual Assessed SF	Asset Group	Department	Asset Function	Asset Type	Year Built	Age	Plant Replacement Value	Actual FCI	Proposed Goal FCI	Proposed Reinvestment Amount
10497	1 of 3 Balboa Park Information Kiosks	3	36	General Fund	Park And Recreation	City-Occupied Public	Kiosk	2010	7	3,179	0	15	0
10498	2 of 3 Balboa Park Information Kiosks	3	36	General Fund	Park And Recreation	City-Occupied Public	Kiosk	2010	7	6,876	0	15	0
10499	3 of 3 Balboa Park Information Kiosks	3	36	General Fund	Park And Recreation	City-Occupied Public	Kiosk	2010	7	5,832	0	15	0
10263	Activity Center, Balboa Park	3	32,800	General Fund	Park And Recreation	City-Occupied Public	Recreation Center	1999	18	20,532,800	16	15	123,212
645	Balboa Park Club	3	24,309	General Fund	Park And Recreation	City-Occupied Public	Public Event Site	1947	70	15,621,450	18	15	396,088
TBD	Balboa Park Information Kiosk 4	3	36	General Fund	Park And Recreation	City-Occupied Public	Kiosk	2010	7	7,033	0	15	0
TBD	Balboa Park Information Kiosk 5	3	36	General Fund	Park And Recreation	City-Occupied Public	Kiosk	2010	7	7,033	0	15	0
10369	Balboa Park, Golf Course Comfort Station	3	1,380	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	2005	12	531,176	0	15	0
782	Clubhouse and Shuffleboard, Balboa Park	3	7,994	General Fund	Park And Recreation	City-Occupied Public	Recreation Center	1961	56	3,922,736	62	15	1,835,808
17	Clubhouse and Shuffleboard, Golden Hill	3	1,242	General Fund	Park And Recreation	City-Occupied Public	Recreation Center	1973	44	695,483	32	15	118,736
851	Comfort Station, 28th and Beech	3	575	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1958	59	221,640	59	15	98,081
508	Comfort Station, 28th and Grape	3	609	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1962	55	246,444	36	15	50,783
852	Comfort Station, 6th and Nutmeg	3	1,200	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1958	59	530,124	42	15	142,292
1217	Comfort Station, 6th and Redwood	3	590	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1958	59	272,438	33	15	48,953
853	Comfort Station, 6th and Thorn, Near Tiny Tot Area	3	512	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1969	48	236,001	56	15	95,894
1335	Comfort Station, Arbor Grove	3	956	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1983	34	435,114	66	15	223,387
1238	Comfort Station, Archery Range	3	744	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1976	41	329,473	34	15	61,910
625	Comfort Station, Auto Museum Conference	3	1,050	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1947	70	464,972	21	15	28,736
525	Comfort Station, Golden Hill - Russ	3	776	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1961	56	295,439	34	15	57,466
509	Comfort Station, Golden Hills	3	672	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1961	56	255,709	28	15	32,721
10283	Comfort Station, Marston House	3	204	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	2000	17	92,075	8	15	0
1010	Comfort Station, Marston Point	3	924	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1971	46	386,167	57	15	163,093
1014	Comfort Station, Morley Field	3	988	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1969	48	449,925	56	15	186,589
1013	Comfort Station, Morley Field - Velodrome	3	528	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1970	47	253,429	50	15	89,377
1077	Comfort Station, Morley Field, N.E. Corner Of Ball Park 1	3	864	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1976	41	388,990	43	15	109,822
510	Comfort Station, Morley Field, Schneider(Jacaranda Dr.)	3	672	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1961	56	333,554	70	15	182,197
1012	Comfort Station, North Pepper Grove	3	672	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1970	47	277,126	35	15	55,445
635	Comfort Station, Organ Pavilion	3	987	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	2000	17	448,088	11	15	0
1011	Comfort Station, Pine Grove	3	672	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1970	47	324,200	46	15	101,024

City of San Diego
 Facilities Condition Assessment FY14 to FY16
 Balboa Park Facilities - City Occupied

Facility No.	Description	District	Actual Assessed SF	Asset Group	Department	Asset Function	Asset Type	Year Built	Age	Plant Replacement Value	Actual FCI	Proposed Goal FCI	Proposed Reinvestment Amount
1090	Comfort Station, South Pepper Grove	3	672	General Fund	Park And Recreation	City-Occupied Public	Comfort Station	1970	47	280,056	43	15	78,432
246	Fire Alarm Building	3	6,016	General Fund	Park And Recreation	City-Occupied Public	Historical Building	1927	90	4,666,371	19	15	187,291
637	Gymnasium, Municipal	3	28,000	General Fund	Park And Recreation	City-Occupied Public	Recreation Center	1947	70	18,991,560	19	15	673,230
10495	House of Pacific Relations, Spain	3	936	General Fund	Park And Recreation	City-Occupied Public	Cultural Center	2006	11	274,388	0	15	0
650	Palisades Building, Recital Hall and Puppet Theater	3	20,000	General Fund	Park And Recreation	City-Occupied Public	Public Event Site	1947	70	12,421,000	31	15	1,970,935
9885	Parks, Old Naval Hospital Library 8	3	8,700	General Fund	Park And Recreation	City-Occupied Public	Library	1951	66	6,740,064	31	15	1,105,896
619	Pool, Kearns Municipal	3	12,821	General Fund	Park And Recreation	City-Occupied Public	Swimming Pool	1947	70	8,914,313	34	15	1,675,373
512	Recreation Center, Golden Hill 2600 Golf Course Dr.	3	10,503	General Fund	Park And Recreation	City-Occupied Public	Recreation Center	1964	53	6,304,846	31	15	1,000,111
798	Ticket Booth, Balboa Star Light Bowl	3	2,130	General Fund	Park And Recreation	City-Occupied Public	Kiosk	1932	85	1,518,924	34	15	294,374
763	Veterans War Memorial	3	21,000	General Fund	Park And Recreation	City-Occupied Public	Public Event Site	1950	67	11,310,390	33	15	2,059,298
39			192,878			City-Occupied Public				118,996,418	26%	15%	13,246,554

City of San Diego
 Facilities Condition Assessment FY14 to FY16
 Balboa Park Facilities - City-Occupied Office/Work Yard/Operations

Facility No.	Description	District	Actual Assessed SF	Asset Group	Department	Asset Function	Asset Type	Year Built	Age	Actual FCI	Proposed Goal FCI	Proposed Reinvestment Amount
9841	Balboa Park- Nursery, Hot Houses, 4 Connected	3	8,172	General Fund	Park And Recreation	City-Occupied Office/Work Yard/Operations	Nursery	1989	28	45	20	142,495
900087	Balboa Park, Nursery, Headhouse 2	3	3,000	General Fund	Park And Recreation	City-Occupied Office/Work Yard/Operations	Nursery	1989	28	28	20	79,042
738	Balboa Park, Storage, Flammable	3	241	General Fund	Park And Recreation	City-Occupied Office/Work Yard/Operations	Storage	1940	77	34	20	6,487
9840	Nursery, Office, Staff- Balboa Park	3	1,200	General Fund	Park And Recreation	City-Occupied Office/Work Yard/Operations	Office	1989	28	47	20	164,681
9887	Nursery, Shade House 2	3	9,600	General Fund	Park And Recreation	City-Occupied Office/Work Yard/Operations	Nursery	1989	28	21	20	3,514
9842	Nursery, Shade House, 1	3	14,000	General Fund	Park And Recreation	City-Occupied Office/Work Yard/Operations	Nursery	1989	28	17	20	0
9839	Nursery, Storage- Balboa Park	3	3,000	General Fund	Park And Recreation	City-Occupied Office/Work Yard/Operations	Storage	1989	28	26	20	51,545
600	Office, Museum Of Man	3	16,609	General Fund	Park And Recreation	City-Occupied Office/Work Yard/Operations	Office	1911	106	42	20	2,505,529
9884	Parks, Administration, (Old Naval Hospital 1)	3	28,000	General Fund	Park And Recreation	City-Occupied Office/Work Yard/Operations	Office	1914	103	29	20	2,264,408
30001299	Pershing Yard Crew Rooms (Mow Crew)	3	1,440	General Fund	Park And Recreation	City-Occupied Office/Work Yard/Operations	Shop	2014	3	0	20	0
30001297	Pershing Yard Office Bldg (Supervisor Offices)	3	1,440	General Fund	Park And Recreation	City-Occupied Office/Work Yard/Operations	Office	2014	3	0	20	0
30001298	Pershing Yard Restroom Bldg	3	1,440	General Fund	Park And Recreation	City-Occupied Office/Work Yard/Operations	Restroom	2014	3	0	20	0
30001300	Pershing Yard Tree, Turf and Support Crew	3	1,440	General Fund	Park And Recreation	City-Occupied Office/Work Yard/Operations	Shop	2014	3	0	20	0
1395	Police Horse Stables, Balboa Park	3	3,600	General Fund	Police	City-Occupied Office/Work Yard/Operations	Horse Stable	1988	29	18	20	0
712	Storage, South Of Organ Pavilion, Balboa Park	3	365	General Fund	Park And Recreation	City-Occupied Office/Work Yard/Operations	Storage	1950	67	51	20	26,089
607	Toolshed, Sefton, North (Laurel Bridge Balboa)	3	170	General Fund	Park And Recreation	City-Occupied Office/Work Yard/Operations	Storage	1950	67	44	20	6,270
695	Toolshed, Sefton, South (Laurel Bridge Balboa)	3	170	General Fund	Park And Recreation	City-Occupied Office/Work Yard/Operations	Storage	1950	67	63	20	8,508
699	Toolshed, Shuffleboard Club	3	120	General Fund	Park And Recreation	City-Occupied Office/Work Yard/Operations	Storage	1950	67	62	20	5,663
18			94,007			City-Occupied Office/Work Yard/Operations				32%	19%	5,264,231



THE CITY OF SAN DIEGO

Report to the City Council

DATE ISSUED: July 20, 2017

REPORT NO: 17-045

ATTENTION: Honorable Council President Myrtle Cole and Members of the City Council

SUBJECT: Fiscal Year 2016 Balboa Park Amenity Condition Assessment Report and Proposed Service Level

REQUESTED ACTION:

This is an information item only.

STAFF RECOMMENDATION:

This is a report on the results of a Balboa Park park amenity condition assessment conducted in Fiscal Year 2016. While staff has no recommendations at this time, service level projections are included in this report.

EXECUTIVE SUMMARY OF ITEM BACKGROUND:

In December 2013, City Council authorized (by Resolution No. R-308581) the award of three Facilities Condition Assessment (FCA) consultant agreements for the purpose of assessing the condition of City's facilities. Each of the three agreements was authorized for a maximum contract value of \$5 million and up to 5 years. Through the annual budget process, the City Council has approved an allocation of \$300,000 per year from Fiscal Year (FY) 2014 through FY 2020 for park amenity condition assessments.

The Park Condition Assessment (PCA) program focuses on the developed acreage within the developed parks where infrastructure has been built or installed that is utilized by the public. This infrastructure deteriorates over time and requires operations, maintenance and capital replacement expenditures to maintain a desired service level within the park system. The methodology and process for the PCA program is provided in Report to Council #17-028. Recently, the consultant completed the PCA for Balboa Park.

In FY2016, 416 acres of Balboa Park's developed park areas were assessed. The assessment was divided into the three commonly recognized areas of the park, the West Mesa (84 acres), Central Mesa (185 acres), and the East Mesa (147 acres). The open space canyons within the park's boundary and leased areas such as the Japanese Friendship Garden and the San Diego Zoo are not included in the 416 acres assessed. This PCA report does not include the building facilities within the park as

those were performed under a separate contract managed by the Public Works Department. A companion Report to Council #16-105 describes the facilities condition assessment for Balboa Park. The PCA also does not include:

- a. Irrigation systems within the park
- b. Underground utilities such as water mains, sewer mains, electrical systems
- c. Proposed improvements listed in the 2008 Soul of San Diego Report
- d. Proposed improvements included in the Balboa Park Master or Precise Plans
- e. Seismic retrofits of older buildings such as the Museum of Man and the Museum of Art
- f. Tenant improvements for facilities

The assessment includes the sewer laterals and storm drains in the Central Mesa area of Balboa Park.

The PCA is a visual assessment of the park assets that are outside and visually apparent above the ground. The following table lists the park assets included in the PCA.

Assets within the Park Included in the Assessments	
Playgrounds	Park Furnishings
Landscaping	Fences and Walls
Above-Ground Storm Water Devices	Pedestrian Paving
Playing Fields	Parking Lots
Outdoor Courts	Park Roads

PCA Balboa Park Process

Each area of Balboa Park, West, Central, and East Mesas were visited by a team of assessment professionals using checklists to ensure each asset type was captured in the assessment. During the park site visits, each asset type listed above was inventoried and evaluated for repairs and remaining useful life. The remaining useful life is based on industry standard lifecycle charts and the consultant's professional experience. The inventory information along with the repairs and remaining useful life for each asset type were used to estimate the maintenance and capital backlog and to project future capital renewal costs over a 20-year period.

A detailed report was generated for each park area assessed as well as the cumulative summary report attached to this report (Attachment A, Park Amenity Assessment: Balboa Park Cumulative Report, dated June 30, 2016). The report outlines the immediate maintenance and capital needs within the park as well as the projected costs associated with each asset type and the year major maintenance or replacement is necessary over the 20-year period. The projected costs in the 20-year outlook assumes the immediate maintenance and replacement needs were performed in the fiscal year the park was assessed. For example, when the

assessment conducted in FY 2016 indicated a playground needed to be replaced, the 20-year outlook shows the playground being replaced again at the end of its 15-year useful life, or in 2031.

It is important to note that the repair or replacement costs shown in the individual park areas assessment reports and cumulative summary report only reflect the repair or replacement of the existing asset. Similar to the condition assessments for facilities, these costs do not reflect expansions, upgrades, or improvements to the asset.

Park Condition Index Summary

The following table provides the average Park Condition Index (PCI) for the three park areas within Balboa Park.¹ The average PCI rating is an average of the park areas assessed. Balboa Park overall averaged a PCI of 5 which places it at the high end of the good category.

Park Areas within Balboa Park	FY Year Assessed	Acres Assessed FY16	PCI	Avg. PCI Condition Rating¹
West Mesa	2016	84	8	Good
Central Mesa	2016	185	4	Good
East Mesa	2016	147	3	Good
Totals	2016	416	Ave. 5	Good

Reliability Levels:¹

In Balboa Park the facilities and buildings associated with the various museums and institutions are a key factor in the overall success of the park. However, this report is focused on the park amenities as identified below. The buildings were assessed under a separate assessment effort.

Reliability Levels by Park Subsystem

Reliability Level 1 Operations Impacts	Reliability Level 2 Deterioration	Reliability Level 3 Appearance
Playgrounds	Parking Lots	Landscaping
Athletic Fields	Park Roads	Park Furnishings
Pedestrian Walkways	Above-Ground Stormwater Devices	Fences
Outdoor Courts		Signage

It is important to address critical deficiencies in the Level 1 Operations Impacts followed by the Level 2 Deterioration subsystems and Level 3 Appearance to ensure usability of the park.

¹ For a complete description of PCI and reliability levels, please see Report to Council #17-028.

The table below summarizes the estimated backlog by Reliability Level for the three areas within Balboa Park. Completing all of the backlog for existing facilities indicated in the table below is not industry Best Management Practice and is not a recommended service level. The purpose of this table is to characterize the backlog so that a service level can be established that addresses the most critical systems to maintain safety and operations.

Park Areas within Balboa Park	Acres Assessed	Level 1 Operations Impacts	Level 2 Deterioration	Level 3 Appearance	Total Backlog
West Mesa	84	\$1.32M	\$2.17M	\$33K	3.53M
Central Mesa	185	\$1.89M	\$3.83M	\$22K	5.74M
East Mesa	147	\$1.55M	\$885K	\$16K	2.45M
Total Parks	416	\$4.76M	\$6.8M	\$71K	11.72M

Proposed Service Level for Balboa Park:

Since the methodology to derive Balboa Park's PCI service level score is similar to deriving a building's Facilities Condition Index (FCI) score, staff in consultation with the assessment professionals determined that the same service level could be used for both PCI and FCI. A proposed PCI goal of 15 is consistent with the FCA program proposed FCI goal of 15 for public buildings. The FCA program proposed the FCI goal of 20 for city offices and sheds on developed parks since these types of buildings do not serve a public use. An FCI of 20 is still in good condition, just not quite as good as the public use buildings with an FCI of 15. Using the same service level goal for parks and the public use buildings within those parks ensures the total reinvestment calculation is consistent for both assets. It also ensures that park facilities are weighted equally to address the different users of that park. Some users may rate a recreation center as being the most important asset within a park while other users may rate an athletic field as being more important. Weighting these very different assets equally provides a holistic approach to managing the city's park assets.

Balboa Park has an average PCI of 5, therefore, Balboa Park's park amenities (which excludes facilities and buildings) do not need additional reinvestment because they already exceed the goal PCI of 15. That is not to say some maintenance and capital backlogs within the park do not need to be addressed, it simply means Balboa Park currently exceeds a PCI goal of 15 and it rated by this methodology as being in good condition. The average Balboa Park PCI of 5 is for 2016. PCI's increase over time due to deterioration of the park assets. Therefore, additional funding will be required to maintain the goal PCI's over time as assets deteriorate and reach the end of their useful life.

Attachment B provides a list of projects accomplished over the past few years and a list of projects underway within Balboa Park. These projects encompass those provided through the City's Capital Improvement Program, philanthropic donations, and those undertaken by other various entities and volunteers. These completed and current projects are one of the reasons why Balboa Park has an average PCI of 5, well above the recommended PCI goal of 15 for the City's overall park system.

Combined Results for PCA Park Assets and FCA Buildings within Parks

To determine the necessary reinvestment amount for a particular park which includes the site assets and the buildings, the PCA data can be combined with the FCA data. The FCA and PCA were completed with the same methodology, but by different consultants. The following chart provides the necessary reinvestment when the park building FCA data is combined with the park assets PCA data for Balboa Park.

Proposed Service Level for Developed Parks (site assets and buildings)				
Park	Balboa Park Buildings: Reinvestment for FCI 15/20	Balboa Park Other Park Amenities: Reinvestment for PCI 15	Max. GOAL FCI	Total Necessary Reinvestment to Obtain a FCI/PCI of 15/20 for Balboa Park
Balboa Park	\$79.2M	\$0	15/20 Good	\$79.2M

Achieving a proposed service level of 15 requires a reinvestment of \$79.2M for Balboa Park to improve the average PCI/FCI to 15/20 Good with a maximum FCI for each building of FCI 15 - Good for City-occupied and leased public/semi-public and FCI 20 - Good for City-occupied and leased offices/work yards/operations and commercial/residential facilities. The average PCI/FCI's reported are for 2016 and the PCI/FCI's increase over time due to deterioration of the asset sub-systems.

SUMMARY:

In Fiscal Year 2016, the site amenities within 416 acres of developed parkland within Balboa Park were assessed to determine the overall condition of the park. In addition, 118 buildings or structures within the park were assessed under a separate condition assessment contract.

The true value of the assessment reports generated for each area within Balboa Park lies in how the data can be used to develop a long-term asset management plan to assist the future maintenance and management of the park. An important first step in any asset management plan is to identify the assets owned, where those assets are located, and the condition of those assets.

Both the developed park amenity condition assessments and the facilities condition assessments were assigned a Park Condition Index and Facility Condition Index service level goal of 15 which is good condition (PCI/FCI of 0 to 20 is good condition). The service level PCI/FCI goal is then used to calculate the necessary reinvestment to bring the outdoor park assets and park buildings to the service level goal of 15. Based on these calculations, no reinvestment is necessary for the park assets and \$79.2M of reinvestment is needed for the buildings and structures within the park. The necessary reinvestment amounts do not include future capital renewal, improvements, expansion, or upgrades.

The \$79.2M is in 2016 dollars and will increase in time due to inflation and due to continuing deterioration of the park assets. The condition assessment data and the proposed reinvestment amounts are a snapshot in time that provide valuable information on the current condition of park assets and the costs associated with maintaining and replacing those assets over time. This condition assessment data along with a mission-specific business model will be used in developing a city-wide asset management plan that will help the City make the most effective use of its resources.

CITY STRATEGIC PLAN GOAL(S)/OBJECTIVES:

Goal # 1: Provide high quality public service

Objective #1: Promote a customer-focused culture that prizes accessible, consistent, and predictable delivery of services

Goal #2: Work in partnership with all of our communities to achieve safe and livable neighborhoods

Objective #3: Invest in infrastructure

Objective #4: Foster services that improve quality of life

Goal #3: Create and sustain a resilient and economically prosperous City

Objective #1: Create dynamic neighborhoods that incorporate mobility, connectivity and sustainability

FISCAL CONSIDERATIONS:

None, this is an information report only.

EQUAL OPPORTUNITY CONTRACTING INFORMATION (if applicable): N/A

PREVIOUS COUNCIL and/or COMMITTEE ACTIONS:

City Council 12/9/2013 Resolution 308581; FCA Consultant Contracts

Infrastructure Committee 1/21/2015; FY 2016 – 2020 Consolidated Multi-Year Capital Planning Report

Infrastructure Committee 6/3/2015; FY14 Facilities Condition Assessment Update

City Council 7/13/2015; FY14 Facilities Condition Assessment Update

Infrastructure Committee 12/9/2015; FY17 – FY21 Five-year Capital Infrastructure Planning Outlook

Infrastructure Committee 3/16/2016; FY16 Facilities Condition Assessment Update

City Council 4/12/2016; FY16 Facilities Condition Assessment Update

Infrastructure Committee 12/7/2016; FY16 General Fund Leased Facilities Condition Assessment Update

City Council 3/14/2017; FY16 General Fund Leased Facilities Condition Assessment Update

COMMUNITY PARTICIPATION AND OUTREACH EFFORTS:

Presentation to the Park and Recreation Board on March 16, 2017. Presentation included assessment results of 76 parks, including Balboa Park.

KEY STAKEHOLDERS AND PROJECTED IMPACTS:

Key stakeholders include City of San Diego residents, park advocacy groups, park advisory groups, institutions and museums, and visitors.

Respectfully Submitted,



Herman D. Parker
Director
Park and Recreation Department



David Graham
Deputy Chief Operating Officer
Neighborhood Services

Attachments:

- A. Park Amenity Assessment Balboa Park Cumulative Report, June 30, 2016
- B. Balboa Park Project List

Attachment B
Balboa Park Project List

July 13, 2017

CITY CIP PROJECTS

COMPLETED

Alcazar Garden Parking Lot ADA Improvements
Balboa Golf Course Irrigation System
Balboa Golf Course Cart Path Improvements
Balboa Park Club HVAC Replacement
Chess Club Roof Replacement
Bird Park Playground Surfacing Replacement
Bird Nest Park Playground Surfacing Replacement
Casa de Balboa HVAC Replacement
Casa Del Balboa Elevator Modernization
Casa Del Prado Elevator Modernization
Casa del Prado Façade Ornamentation
Casa del Prado HVAC Replacement
Casa del Prado Roof Replacement
El Prado Area ADA Improvements
Florida Canyon Drainage & Trail Improvements
Group 615 Water and Sewer Main Replacement
Hall of Nations Foundation Repair
Light the Park Project
Morley Field ADA Improvements
Morley Field Tennis Club ADA Improvements
Museum of Art Ornamentation Repair
Museum of Man Ornamentation Repair
Museum of Man Elevator Modernization
Museum of Man HVAC Replacement
Museum of Man Roof Replacement
Old Globe Theater Elevator Modernization
Organ Pavilion Ornamentation and Lighting Restoration
Palisades and Presidents Way ADA Improvements
Pan American Road East ADA Improvements
Parking Lot Resurfacing Phases I & II*
* Federal Lot East
* Federal Lot West
* Inspiration Point North Lot
* Inspiration Point South Lot
* Organ Pavilion Lot
* Pan American Road East
* Pan American Place
* Palisades West Service Road
* South Carousel Lot

Attachment B
Balboa Park Project List

CITY CIP PROJECTS

COMPLETED

Plaza de Panama Interim Improvements
Public Art Restoration
Roosevelt Middle School Joint Use Improvements
Municipal Gym Roof Replacement
Sewer Lateral Replacement
Sixth Avenue Playground Improvements
Spanish Village Plumbing Replacement
Tram Yard Improvements
Village Place Street Light Replacement

IN DESIGN/CONSTRUCTION

Air & Space Museum Elevator Modernization
Inspiration Point Solar Project
Plaza de Panama Project
West Mesa Comfort Station Replacement
Bud Kearns Aquatic Complex Improvements
California Tower Seismic Retrofit
Casa de Balboa Fire Alarm System
Golf Course Drive Improvements
Marston House Roof Replacement
Museum of Art Elevator Modernization
Museum of Man Seismic Retrofit
Thompson Med Library/Eddy Auditor Rehab

PHILANTHROPIC PROJECTS/OTHER AGENCIES

6th Avenue Playground Improvements
Adopt-a-Plot Program
Balboa Park Entry Kiosks
Botanical Building Fountain Restoration
Cabrillo Bridge Seismic Retrofit and Restoration
Cabrillo Bridge Historic Light Restoration
Cabrillo Bridge Guard House Restoration
El Cid Balustrade Reconstruction
Free Public WiFi
Hall of Champions Comic Con Improvements
Information Kiosks
International Cottages Expansion
Japanese Friendship Garden Improvements
Mingei Muesum Renovation
Morley Field Nature Play Area
Morley Field Velodrome Resurfacing
Park Boulevard Median Turf Conversion

Attachment B
Balboa Park Project List

PHILANTHROPIC PROJECTS/OTHER AGENCIES

Old Globe Way Renovation
Pershing Drive Bikeway Project
10 LEED Certified Buildings
Carousal Maintenance

City of San Diego

Park Amenity Assessment:

BALBOA PARK CUMULATIVE REPORT

June 30, 2016



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INTRODUCTION

In 2016, the City of San Diego Park and Recreation Department (City) selected Kitchell CEM to perform Park Amenity Assessments (PAA's) and abbreviated accessibility assessments for Balboa Park, located in central San Diego. This report is a comprehensive summary report on the developed systems of Balboa Park, assessed in Fiscal Year (FY) 2016.

The PAA's at the parks included the following assessments:

- Detailed Visual Assessments. The assessment included major park facilities and systems including (as applicable) site parking lots, site roadways, pedestrian walkways, playgrounds, sports fields, play courts, landscaping, above-ground storm water items (e.g. concrete drainage ditches), and other miscellaneous items identified visually on-site. The assessment did not include buildings, comfort stations, structures, or land value estimations. The assessment was based upon the condition of the facilities "as-is"; no recommendations were made for additional site improvements or enhancements.
- 
- Central Mesa
- Detailed Underground Utility Assessment. This assessment including the videoing of the underground storm drain system throughout the Central Mesa, as well as the sewer laterals in the Central Mesa. The assessment did not include the main sewer or water lines running throughout the Central Mesa.
 - Abbreviated Accessibility Assessments. The abbreviated accessibility assessments were performed to determine the condition or existence of accessibility features, and whether major park areas were accessible (e.g. ramps provided, accessible parking stalls and pathways, etc.). The assessment did not include any buildings or major structures. This assessment was also based upon the condition of the facilities "as-is"; no recommendations were made for additional site improvements or enhancements, with the exception of items related to disabled accessibility.

The overall primary goal of this project was to identify the current park-related maintenance and capital backlogs, and also to forecast anticipated future capital renewals for site systems. Other work to achieve this goal included the research and review of available as-built drawings, general development plans and other available information from the City staff. The information contained within this report and the individual park amenity assessments will be used to assist City staff in planning for park maintenance and capital renewal, for both current backlogs (for FY-2016) and future park concerns (for the next 20 years).

The assessment of Balboa Park began in January 2016. The assessment comprised a total of approximately 18,126,467 gross square feet (416 acres). The assessment was divided into three distinct areas, the Central Mesa, the East Mesa and the West Mesa. The overall area (416 acres) represents the identified developed

areas of Balboa Park (including hardscape, landscape, and park amenities), and does not include the undeveloped canyon areas, the San Diego Zoo property, the Naval Hospital or the Balboa Golf Course.

During the course of the assessments and subsequent analysis, the team identified an estimated total of \$11,740,206 in maintenance and capital backlog items. Of this amount, \$343,513 was identified as maintenance backlog and \$11,396,693 as capital backlog. The backlogs are based on each park system’s overall condition, age, and stipulations for replacement. The total park replacement value (PRV) of the developed areas for Balboa Park is estimated at \$257,287,408.



East Mesa

A condition index rating was determined by the City of San Diego and in turn was developed into a Park Condition Index (PCI) for established park areas only, excluding the systems described above. Overall, Balboa Park received a rating of 5, indicating that the facilities are in an overall “Good” condition. For each of the three park areas, the Central Mesa received a rating of “Good” (4), the East Mesa received a rating of “Good” (3), and the West Mesa received a rating of “Good” (8). The PCI formula and a summary table on condition findings by park area is shown below.

$$PCI = \frac{\text{Cost of Repairs for Assessed Systems}}{\text{Current Replacement Value of Assessed Systems}}$$

Park Area	Gross Square Footage (GSF)	Capital Backlog (FY-2016)	Maintenance Backlog (FY-2016)	Total Backlog (FY-2016)	Park Replacement Value (PRV) (FY-2016)	PCI
Central Mesa	8,069,701	\$ 5,580,674	\$ 174,282	\$ 5,754,956	\$ 143,487,360	4
East Mesa	6,391,081	\$ 2,355,045	\$ 96,802	\$ 2,451,847	\$ 70,854,717	3
West Mesa	3,665,685	\$ 3,460,974	\$ 72,429	\$ 3,533,403	\$ 42,945,331	8
Total	18,126,467	\$ 11,396,693	\$ 343,513	\$ 11,740,206	\$ 257,287,408	5

In addition to the current maintenance and capital backlogs shown in the table above, the assessment team reviewed future projected capital renewal forecasts for a 20-year period following FY-2016. The team identified an estimated total of \$444,197,756 for park systems and elements that would either reach the end of their expected life cycles during this period, or would require significant maintenance (beyond the scope of normal City maintenance staff work).

Additional information regarding the assessments and details about the figures and findings are contained within this report, the report appendices, and the individual park amenity assessment reports for each of the three distinct park areas.

PARK AMENITY ASSESSMENTS

Park Amenity Assessments (PAA's) are conducted to determine deferred maintenance items for a given facility or grouping of facilities. In the PAA, the assessing team will identify any maintenance, repair, or capital replacement items that have not been reported or addressed through the City's routine work order processes, and to address any maintenance items that have been properly reported, but for some reason have not been resolved. The main objective of a PAA is to determine the overall condition of a facility or group of facilities.



West Mesa

Items identified through a PAA are generally categorized into the following:

- (1) **Backlog.** Backlog consists of items related to regular maintenance, repair, or capital replacement work that was not performed when recommended or scheduled, possibly due to lack of funds or personnel to perform the maintenance. Backlog also includes items related to maintenance and repair that may have been previously unknown, but were also not addressed. These items were therefore deferred for a future period. These items should be addressed in the City's upcoming budget cycle, typically within a time period of 1 to 5 years depending on the priority and applicability to the mission of the facility. Deferred Maintenance items are typically included within the Facility Cost Index (FCI) for each facility.
- (2) **Projected Capital Renewal.** These items consist of projected future needs for facility systems throughout the projected life cycle of the system. The projected needs include identification of costs associated with the systems as they reach the end of life (or in some cases, obsolescence), including regular scheduled maintenance, and replacement when required. Projected Capital Items are typically not included within the FCI for each facility.

The individual park amenity assessment reports provide descriptions and cost estimates for the maintenance, repair, and capital replacement backlogs for each park and major systems. The information provided in the reports will assist the City with the following:

- Identifying the condition of the overall parks, as well as major systems within the parks.
- Identifying which parks may have systems or elements that would be deemed unsafe, or can no longer support the mission of the park where located (or community, if the parks are part of a joint use program).
- Identifying requirements to bring the park systems up to current standards, especially with regards to accessibility.



East Mesa

- Determining the estimated costs to address the current maintenance and capital backlogs, as well as the most critical items to be addressed by park system.
- Deciding whether to continue repairing a park system, or provide replacement of the system.
- Preparing budget and funding approaches for the next 20 years of projected costs.
- Identifying opportunities for optimizing funding via economies of scale (e.g. grouping a series of maintenance / renewal items together to get better contract pricing).

APPROACH

To begin the park amenity assessments, Kitchell first met with the City to determine the full scope of items to be assessed at each park. The nature of the assessments was “visual observation”, i.e. only visually observable items would be assessed, with no destructive testing or in-depth analysis. Additionally, an underground utility assessment was completed for the Central Mesa targeting the existing storm drain system and sewer laterals. The scope of the items to be assessed was grouped in categories organized by Uniformat II categories and classifications, according to the following:



Central Mesa

- On-Site Roadways
- On-Site Parking Lots
- Pedestrian Walkways
- Playing Fields and Courts
- Site Development items, such as Furnishings, Fencing, Walls, Signage, and other miscellaneous items
- Landscaping
- Above-Ground Stormwater
- Underground utilities (Storm drain system and sewer laterals)

Other items specifically excluded from the assessment, either due to not being “visually observable”, or requiring specialty assessment procedures are listed below:

- Buildings (included as part of the General Fund Assessment)
- Comfort Stations (included as part of the General Fund Assessment)
- Other Structures (included as part of the General Fund Assessment)
- Irrigation systems
- Land Value Estimation

In order to prepare for the park amenity assessments, Kitchell began with a review of available information provided by the City for each park. The available information consisted of Google Earth files showing the approximate site boundaries, aerial photos of the site, the General Development Plan (GDP) for the site, limited as-built drawings and storm drainage inlet maps, and playground photos.

Kitchell also prepared a site checklist in accordance with the scope items required by the City. The checklist identified potential system deficiencies to be checked by the field assessment teams, and was also organized according to Uniformat II categories and classifications. Kitchell provided this checklist to the

City for review; following the review, minor adjustments were made to the list and organization of the data collected. The checklist was approved for use for the Balboa Park assessments.

Prior to the start of the site assessments, Kitchell conducted a kick-off meeting with City staff. The purpose of the meeting was to discuss the following:

- Project goals, objectives, and scope.
- Assessment expectations, including systems included in the assessment, use of Kitchell-prepared checklists to identify deficiencies and maintenance items, and photography.



Central Mesa

The process used to assess the park was as follows:

- Review all available park data from the City for the areas to be assessed.
- Prepare site maps for each park area to calculate the total area related to each major park system, including roadways, parking lots, etc. for calculation of each park's Park Replacement Value (PRV). Maps were based on the latest Google Earth images for the parks.
- Visually assess and photograph the facilities to determine the overall physical condition of the existing systems, and prepare deficiency reports and cost estimates. Assessment also included taking site measurements where necessary to quantify observed deficiencies (e.g. square footage of broken concrete paving, etc.).

Based on site observations, the majority of deficiencies noted during the assessments related to deferred maintenance and repairs, some of which have sufficient deterioration which could lead to full replacement or renewal. The following guidelines were used to determine if a deficiency would be classified as a maintenance or capital backlog item:

- Review as to whether the identified deficiency relates to the structural integrity of a system. (For example, minor repairs to asphalt, such as slurry sealing, would fall under the maintenance category; further repairs such as full replacement or improvements required for pavement integrity would fall into the capital category.)
- Review of the quantity of the deficiency within a system, and associated cost. (For example, a small area pavement replacement may be considered a routine maintenance item; larger pavement replacement may go beyond budgeted maintenance funds, and require separate capital renewal funding.)

After the items were categorized into maintenance and capital backlog categories, the items were further prioritized according to the following categories:

- Priority #1: Critical. Items included in this category require immediate action to stop accelerated deterioration or correct a hazard (e.g. pavement trip hazards, etc.).

- Priority #2: Potentially Critical. Items included in this category were not deemed to require immediate action, but are due for action within a year to correct situations such as rapid deterioration (e.g. structural failure of pavements such as “alligator cracking” or potholes, etc.).
- Priority #3: Necessary. Items included in this category require appropriate attention to address predictable future deterioration or potential future higher costs if deferred further.
- Priority #4: Recommended. Items included in this category represent recommended improvements and maintenance for serviceability of existing site systems, and identified to prevent future damage.
- Priority #5: Other. Items included in this category represent improvements identified to bring accessibility items up to current codes. This priority does not include major renovations and/or redesign of identified accessible routes, or the construction of new accessible routes to park facilities (where no accessible route could be identified).

Kitchell’s estimating team reviewed each park checklist, with identified deficiencies, maintenance items, and site take-off quantities. The estimators assigned costs to each item using the latest R.S. Means Construction Cost Data, and included hard costs, City Cost Index (CCI) adjustments for San Diego, soft costs for design and implementation of repairs, and estimating contingencies. The cost estimates for FY 2016 for each park are included in the individual Park Amenity Assessment Reports.

The Facility Condition Index (FCI) Standard

As a part of the assessments, a Facility Condition Index (FCI) was required for each park analysis. The FCI is defined by the National Association of College and University Business Officers (NACUBO) as the ratio of the Cost of Repairs (Deferred Maintenance, or DM) divided by the Current Replacement Value (CRV) of a facility. This standard calculation quantitatively rates the physical condition of the facility or group of facilities, and is a generally accepted industry standard. The ratio is typically expressed as the following:



East Mesa

$$FCI = \frac{\text{Cost of Repairs (DM)}}{\text{Current Replacement Value (CRV)}}$$

Based upon the scope for the park assessments, a typical FCI could not be calculated for an entire park site, as it would include items not included in the assessment scope (such as buildings, major structures, and assessor’s land values), which would normally be included in the full current replacement value. Instead, an abbreviated FCI value, Park Condition Index (PCI), was calculated for each park site. This PCI calculation utilizes the cost of both maintenance and capital backlog as well as the term Plant Replacement Value (PRV) in place of Current Replacement Value (CRV). This new PCI ratio is expressed as the following:



Central Mesa

$$PCI = \frac{\text{Cost of Maintenance Backlog} + \text{Cost of Capital Backlog}}{\text{Plant Replacement Value (PRV)}}$$

The PCI ranges for Good (PCI 20 or less), Fair (PCI 21-29) and Poor (PCI 30 or greater) are designated by the City of San Diego staff. (The PCI numbers are multiplied by 100 to provide whole values for City planning purposes). PCI values for each category are as follows:

- Good: PCI = 20 or less
- Fair: PCI = 21 to 29
- Poor: PCI = 30 or greater

Typically, costs for deficiencies identified during assessments are scheduled and budgeted for correction within a one to five year time frame, based on funding availability. For the purpose of this assessment, rather than spread out costs over a given period, all observed deficiency costs were grouped into FY 2016. This was done for two reasons. First, based upon site observations, the majority of deficiencies noted are related to deferred maintenance items, which in some cases had been deferred past the point of the life of the system. Second, all current costs should be included in order to increase the accuracy of the PCI, for a more accurate depiction of the physical condition of the facility’s assessed systems.

Repairing or Renewing a Facility versus Replacing a Facility

In general, for buildings, the industry standard trends toward recommending replacement for a facility when the cost of identified repairs is between 50 to 70 percent of its replacement value (which translates to an FCI of 50% to 70%). This approach may be verified depending on the age of the building, the functionality, size, or location; a building falling within this range may not necessarily require replacement.

Unlike buildings, where major systems are heavily reliant upon each other and may require replacement of portions of other systems to ensure full functionality (e.g. replacement of roofing in addition to HVAC

equipment located on the roof), a majority of park systems can be addressed as individual, separate components. A higher PCI value (and thus higher cost of repairs) may not necessarily require the full replacement of the park, since the park PCI may be heavily driven by one particular system. For example, if the playgrounds were sufficiently obsolete and would require full replacement. The park PCI may be within the “Fair” to “Good” range without including the cost of replacing the playground, but may drop to the “Poor” range once the playground is added. Therefore, when evaluating whether the park should be repaired or replaced, the following should be considered:

- Review of the individual park systems to determine if the PCI is being driven by one or more categories that can be individually replaced, to maintain the mission of the park and the critical systems.
- Review of available funding and restrictions on the funding.
- Overall size, function, design, layout, and usage of both the park and its individual components.
- Availability of other park facilities within the local area which can support the public demand for park space while another is repaired or replaced.



East Mesa

Deficiency Cost Estimates

The cost estimates, the backlog of maintenance, and capital backlogs identified in the facility assessment reports were prepared by Kitchell’s estimating department using data from real-time, field-verified construction estimates. The estimates include applicable direct cost and City Cost Index (CCI) adjustments for performing the work, and additional adjustments requested by the City to bring direct costs in line with the City’s historical costs for work. Also included are soft costs the City typically applies to administer, design, manage, regulate, and execute the work performed on the facilities. The soft factor used for the FY-2016 assessment was set at 1.50 for the purpose of determining the maintenance and capital renewal deficiency cost estimates.

Park Replacement Value (PRV)

As a part of the park analysis, Kitchell also prepared Park Replacement Values (PRV's) for each individual park's developed areas. The Park Replacement Value (PRV) is also known as the Current Replacement Value (CRV) in the PCI standard developed previously in this document. As noted previously, this value includes only the items included within the scope developed with the City, and excludes items such as structures, buildings, and land value estimations.



Central Mesa

Based upon the observations at the park, Kitchell's estimating team developed per-square-foot costs for each of the major park systems, as included with Uniformat II categories and classifications. The per-square-foot costs developed were taken as an average across the three individual park areas assessed. For example, the development of a per-square-foot cost for site parking lots included costs for asphalt pavement, concrete pavement, curbs and gutters, and landscaping. Since the majority of parking lots within the assessment had asphalt pavement, the major portion of the per-square-foot cost includes installation of asphalt pavement sections to support vehicular traffic. Should future assessments determine that the majority of parking lots are concrete pavement, the cost will be adjusted accordingly.

In order to estimate the replacement value for the park developed areas, Kitchell prepared site maps of the park based upon the latest Google Earth images. The identified areas (parking lots, walkways, etc.) were compared against all available resources, including City as-built documentation, General Development Plans, and park boundary maps. Additionally, Kitchell reviewed each map to field verify the site areas identified, and make minor corrections based upon site observations, if applicable.

For Balboa Park, overall approximately 18,126,467 gross square feet (416 acres) were assessed. The Park Replacement Value (PRV) for the developed area is \$257,287,408.

OTHER ASSESSMENTS

Abbreviated Accessibility Assessments

In addition to the condition assessment, Balboa Park received an abbreviated accessibility assessment. This assessment was performed by the condition assessment team and was designed to assist in identifying readily achievable accessibility needs within park. The estimated cost of readily achievable accessibility items is \$138,510. Individual area accessibility deficiencies can be found in the park amenity assessment reports.

THE ASSESSMENT TEAM

Field assessment, data entry and report preparations began in January 2016 and were completed in June 2016. The assessment teams were assigned to complete the work and evaluate site systems (hardscape, landscape, etc.).

The assessment team was assigned as follows:

- Kitchell – Matt Johnson, Civil Engineer
- Kitchell – Shane Murphy, Project Engineer
- Kitchell – Anthony Lloyd, Project Engineer-Electrical
- Downstream Services, Inc. – Kim Carr, Project Manager
- Downstream Services, Inc. – Burton Smith, Technician



East Mesa

Additional team members from Kitchell included:

- Heather Brown, Project Manager
- Wendy Cohen, Regional Executive
- Tim Prechel, Estimator
- Jay Prechel, Estimator

The field assessment teams were also supported by the following City personnel:

- City of San Diego: Leigh Ann Sutton, P.E., Associate Engineer and Project Lead, who coordinated and guided the overall assessment effort from the City's side and provided leadership and insight to the City's project goals and objectives. Leigh Ann ensured the project team was provided resources needed by the project team.
- City of San Diego: Jim Winter, Project Officer, who coordinated available documentation and resources for the assessment teams (including as-builts, maps, and general park information), and provided extensive support for the teams during the assessment and subsequent analysis. Jim ensured the project team was provided resources needed included coordinating access to specific areas of the park and ensuring appropriate city personnel was available to assist in all inquiries that arose from the assessment.
- City of San Diego: Scott Lee, Assistant Engineer, who coordinated various aspects of the project and provided necessary support to the team during the assessment process.

CITY OF SAN DIEGO ASSESSMENT FINDINGS

BACKGROUND

The City oversees, manages and maintains numerous parks within the Greater San Diego area, with various sizes, facilities, and systems. As trustees and stewards of these properties, the City is responsible for the day-to-day operations and maintenance of the parks. Unfortunately, due to limited resources, the park facilities have accrued a backlog of maintenance and capital renewal items that should be addressed to ensure that the parks continue to fulfill their mission to the City, and that the City can continue to provide parks resources to meet the public’s demands. With this assessment project, the City has begun the process of evaluating the current conditions of these valuable resources, and determining the items requiring corrective actions of maintenance, repairs, or replacement. The results and findings contained in this report, and in the individual facility reports, are intended to provide the City with the information about the current condition of the facilities and those components and systems where maintenance, repair, or replacement may have been deferred. In addition, a twenty (20) year forecast of system capital renewal schedule was prepared for each park area.



Central Mesa

The Facilities- Summary of Results and Findings

The area of Balboa Park assessed comprised a total of 18,126,467 gross square feet (416 acres). This area represents the identified developed areas of the park (including hardscape, landscape, and park amenities), and does not include buildings, structures, or open land areas beyond developed park areas. The team identified an estimated total of \$11,740,206 in maintenance and capital backlog items. Of this amount, \$343,513 was identified as maintenance backlog and \$11,396,693 as capital backlog. The backlogs are based on each park system’s overall condition, age, and specifications for replacement.

Maintenance & Capital Backlog by Park System

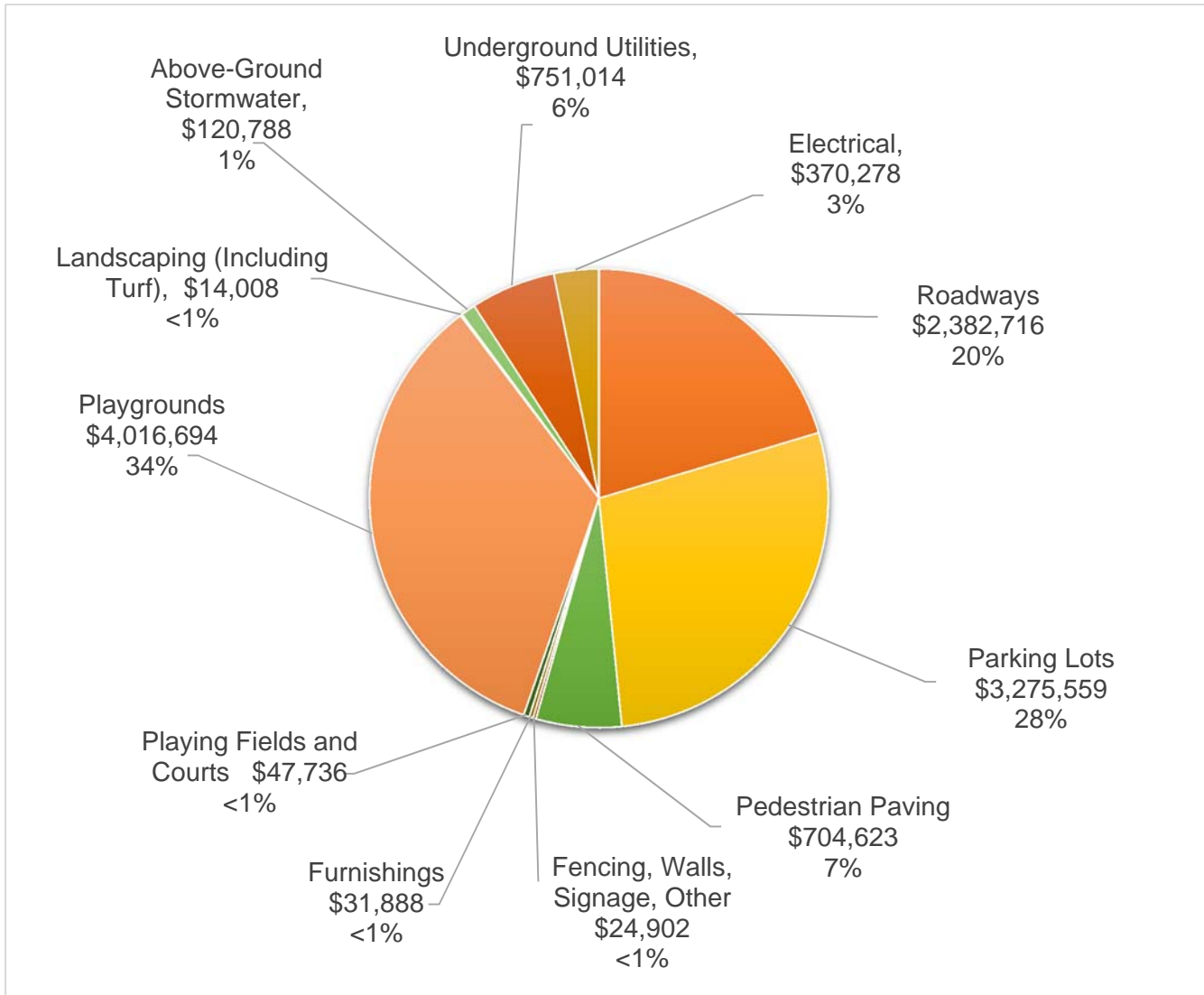
The following table and figure illustrate the maintenance and capital backlog totals for the assessed park area by **Park System**. The table and chart shows each major park system assessed. Of interest to note is that the highest backlog costs were for playgrounds, followed by parking lots. Overall, the majority of the playgrounds observed had exceeded their useful life, and/or required upgrades to meet current code requirements for accessibility.

Table 1. Total Backlog by Park Systems – Balboa Park

System	Total Maintenance & Capital Backlog
Roadways	\$2,382,716
Parking Lots	\$3,275,559
Pedestrian Paving	\$704,623
Fencing, Walls, Signage, Other	\$24,902
Furnishings	\$31,888
Playing Fields And Courts	\$47,736
Playgrounds	\$4,016,694
Landscaping (Including Turf)	\$14,008
Above-Ground Stormwater	\$120,788
Underground Utilities	\$751,014
Electrical	\$370,278
Total	\$11,740,206

Figure 1. Total Backlog by Park Systems – Balboa Park

Total Backlog by Park Systems – \$ 11,740,206



Maintenance & Capital Backlog by Reliability Level

To effectively address and manage the total maintenance and capital backlogs, the estimated costs for maintenance and capital backlogs have been categorized into three system **Reliability Levels**. The three reliability levels that were analyzed for the assessments are described and defined below.



East Mesa

- Level 1 Operations Impacts**
Level 1 Operations Impacts represent systems that can lead to partial or full shut-downs of the facility if the systems are allowed to exceed the end of their useful life or are not properly maintained. This would include playgrounds, athletic fields, outdoor courts and pedestrian walkway areas.
- Level 2 Deterioration**
Level 2 Deterioration represents systems that will shorten the life of the asset and cause deterioration to other systems if allowed to exceed the end of their useful life or are not properly maintained. This would include parking lots, roadways, above-ground stormwater, underground utilities and the electrical system.
- Level 3 Appearance**
Level 3 Appearance represents systems that provide the appearance and quality of the facility. This would include systems such as landscaping, signage, fencing and park furnishings (picnic tables, benches, etc.).

The following tables and charts reveal the findings total maintenance and capital backlogs for Balboa Park. To achieve optimum service reliability for the park systems, it is important to first address the Level 1 Operations Impacts followed by Level 2 Deterioration to ensure reliability of the Park facilities.

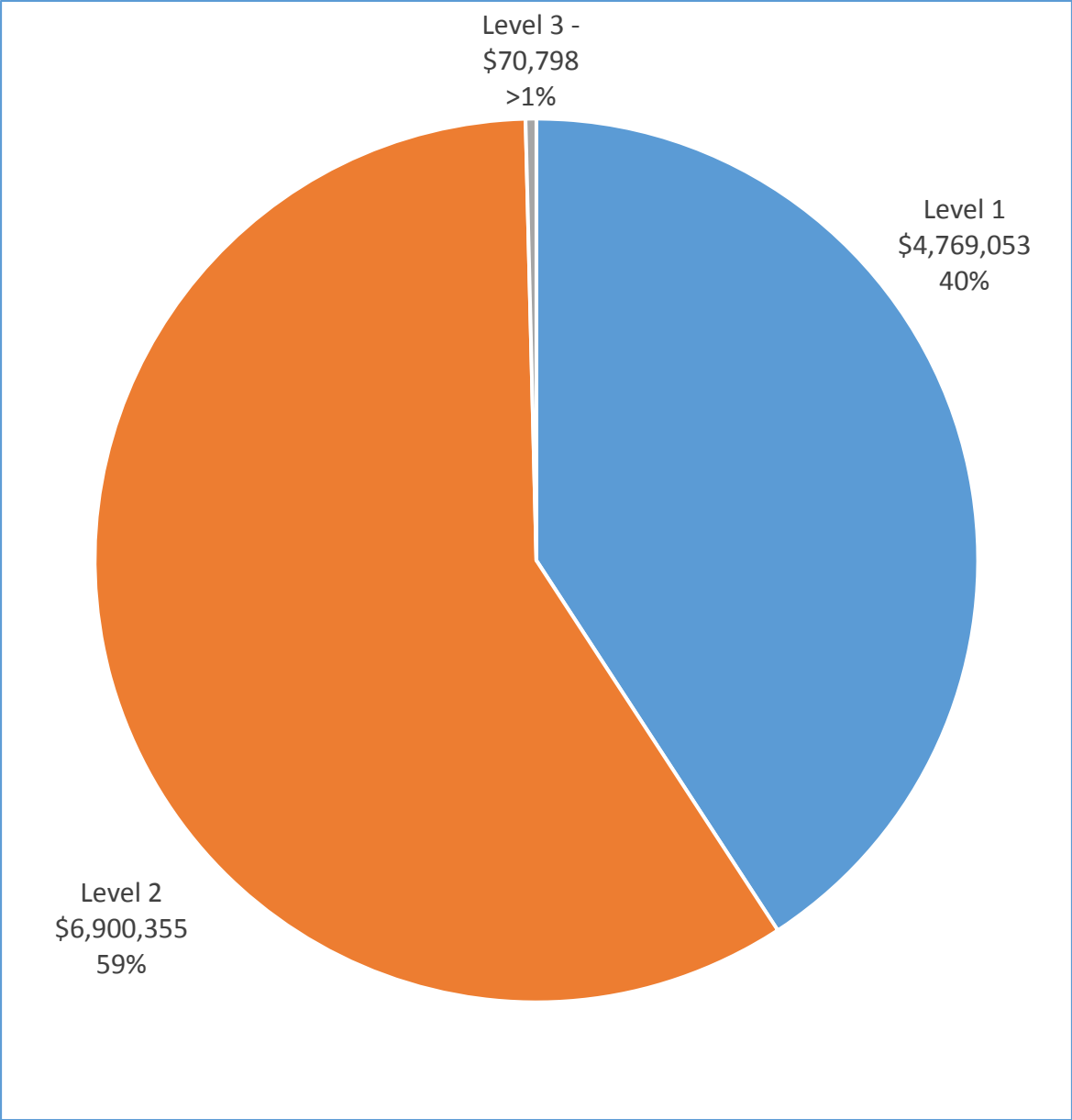
Table 2. Facility Maintenance & Capital Backlog by Reliability Level – Balboa Park

	Level 1 Operations Total	Level 2 Deterioration Total	Level 3 Appearance Total	Total Backlog
Central Mesa	\$1,893,992	\$3,839,097	\$21,867	\$5,754,956
East Mesa	\$1,550,756	\$ 885,364	\$15,727	\$2,451,847
West Mesa	\$1,324,305	\$2,175,894	\$33,204	\$3,533,403
Total	\$4,769,053	\$6,900,355	\$70,798	\$11,740,206

Figure 2. Facility Maintenance & Capital Backlog by Reliability Levels – Balboa Park

Total Maintenance & Capital Backlog by Reliability Levels:

\$ 11,740,206



Additional Park Amenity Assessment Findings

Table 3. Facility Maintenance & Capital Backlog by Park Area – Balboa Park

Park Area	Total Capital Backlog	Total Maintenance Backlog	Total Backlog	Park Replacement Value	PCI
Central Mesa	\$5,580,674	\$174,282	\$5,754,956	\$143,487,360	4
East Mesa	\$2,355,045	\$96,802	\$2,451,847	\$70,854,717	3
West Mesa	\$3,460,974	\$72,429	\$3,533,403	\$42,945,331	8
Total	\$11,396,693	\$343,513	\$11,740,206	\$257,287,408	5

Of the FY-2016 maintenance and capital renewal costs, approximately 82% of the identified items fell into three categories: “Roadways” (\$2,382,716, approximately 20% of the FY-2016 maintenance and capital backlog cost), “Parking Lots” (\$3,275,559, approximately 28% of the FY-2016 maintenance and capital backlog cost) and “Site Development: Playgrounds” (\$4,016,694, approximately 34% of the FY-2016 maintenance and capital backlog cost). The following table illustrates the FY-2016 costs for “Roadways”, “Parking Lots” and “Site Development: Playgrounds” broken down by park area.

Table 4. Facility Maintenance & Capital Backlog by Highest Systems – Balboa Park

	Roadways	Parking Lots	Site Development: Playgrounds
Central Mesa	\$908,410	\$1,905,675	\$1,404,128
East Mesa	\$465,127	\$344,643	\$1,390,060
West Mesa	\$1,009,179	\$1,025,241	\$1,222,506
Totals	\$2,382,716	\$3,275,559	\$4,016,694

Playground equipment assessed generally was in fair condition. The City has established a useful life for playgrounds of 15 years. Despite the condition of the equipment, the City confirms that the playgrounds are safe. Based upon this useful life, the majority of the playgrounds are due for full replacement. Additionally, it is recommended the playgrounds be upgraded to meet current accessibility codes (including creating accessible paths to equipment, ramps down to play areas, etc.). The cost for FY-2016 playgrounds includes, as applicable, costs for replacing both playground equipment and surfacing, and also includes an additional 25% mark-up factor for accessibility upgrades.

The roadways and parking lots assessed were primarily asphalt concrete over aggregate base, with some small areas of concrete paving. Per site observations, the majority of the asphalt had visible surface deterioration, possibly due to a lack of preventative maintenance and regular repairs. In some areas, it appeared that the asphalt pavement had substantially deteriorated, showing evidence of structural failure (e.g. “alligator” cracking). This could be due in part to extended deferred maintenance, but also could be attributed to other factors such as subgrade deterioration, and/or that the pavement has been subjected

to loads higher than included for the original design. The cost for pavement repairs and replacements conservatively assume a structural section that may be larger than the existing, to account for potentially higher loads and to reduce future accelerated deterioration.

As a part of the Reliability Level categories, “Site Development: Playgrounds” have been assigned to Reliability Level 1: Operations Impacts, and “Roadways” and “Parking Lots” to Reliability Level 2: Deterioration. The City should begin developing an action plan to address conditions that could put the City at some liability or risk, and decide to either repair or replace the system elements that are beyond their useful life. As the playground areas are included in Reliability Level 1: Operations Impacts, and are not only crucial to the mission of the parks but may put the City at higher risk due to extended deterioration or potential failure, even though the City ensures the playgrounds are safe. As old play equipment is removed due to age, the play value of the park diminishes resulting in fewer park users thus reducing the park’s ability to achieve the City’s park mission. We recommend that the City focuses on the playground system first.

CAPITAL RENEWAL

In addition to identifying backlog of maintenance and capital backlogs for the systems and elements at Balboa Park, an additional goal of the project was to identify and forecast for a 20 year period (from 2017 to 2036) both the maintenance and capital backlog and future capital renewal for the individual park systems. This portion of the report focuses on both current FY-2016 maintenance and capital backlog, as well as projected future capital renewal which is based on the remaining useful life of park systems. Depending on the park system and expected useful life, a portion of on-site elements are expected to expire, or require significant maintenance, within the 20-year period selected. The 20-year plan includes maintenance and capital renewal items organized into the following categories, according to Uniformat II, and in accordance with the scope developed with the City:

- Roadways
- Parking Lots
- Pedestrian Paving
- Site Development: Fencing, Walls, Signage, Other
- Site Development: Furnishings
- Site Development: Playing Fields and Courts
- Site Development: Playgrounds
- Accessibility
- Landscaping (Including Turf)
- Above-Ground Stormwater
- Underground Utilities (Storm water System and Sewer Laterals)



East Mesa

The cost projections and determination of capital replacements for the systems were based on the following (in no particular order):

- Field determination by the assessment team as to the probable years of remaining life, following improvements recommended for FY 2016.
- Direct City requests for maintenance and/or capital renewal, independent of the projected years of remaining life (e.g. replacement of playgrounds at various sites).
- Known chronological age and projected remaining years of life for the system.

Capital renewal identified for the 20-year period should be considered as additional future needs to the FY-2016 maintenance and capital backlogs. These projections are based on the assessment team's observations as to the useful remaining life of the systems, as well as the age of the system (if known). Average useful life expectations and maintenance cycles were derived from a variety of sources, including the Building Owners and Managers Association (BOMA) International Standards, the California Department of Transportation (Caltrans) Maintenance Technical Advisory Guide (MTAG), and the 2011

Architectural Manual's Expected Useful Life Table prepared by the Washington State Department of Commerce, Office of Affordable Housing. Additionally, the assessment team enlisted the support of Kitchell's Facility Management (FM) Department, which used real-time data to verify expected useful life cycles for various park systems and elements.

Once maintenance cycles were established, yearly maintenance costs were derived using one of the following methods.



West Mesa

- For systems consisting of more than 90% of one particular material / construction method (e.g. asphalt paving for most parking lots), an actual hard repair cost was used (e.g. slurry sealing of asphalt pavement, etc.). These costs were prepared by Kitchell's estimators, drawing from RS Means Construction Cost Data, and included allowances for smaller sub-systems within the system (e.g. for parking lots, inclusion of minor costs for curbs, gutters, etc.).
- For systems consisting of multiple types of materials / construction costs (e.g. baseball field with multiple types of equipment and field surfacing), a yearly repair cost was estimated using a percentage of current replacement value costs. The percentage varied from system to system, and was adjusted based upon the yearly repairs anticipated for each system.

For systems with detailing beyond the scope of the visual site assessment (e.g. "Site Development: Fencing, Walls, Signage, Other" category, which included general site fencing, above-grade visible utilities, etc.), an estimated cost-per-square-foot was applied to the park's calculated developed area. The estimated cost was based upon observations made, and adjusted per sub-category (i.e., different costs-per-square-foot were used for site signage versus fencing and retaining walls).

The table below illustrates the average useful life expectations for the park systems used in the assessment. As each park system is made up of multiple elements, the age shown represents the highest occurring element within the system, based upon site observations of the park area assessed. For example, within parking lots, the overwhelming majority of the hardscape observed was asphalt paving, with only minor portions of concrete paving and curbs (if present). Therefore, the useful life expectation for parking lots was based on asphalt concrete rather than standard concrete.

Table 5. Park Amenity Assessment Park Systems: Average Useful Life

System Code	System	Sub System	Sub System Code	Category	Priority	Life
G20	Roadways	Paving and Surfacing, including minor site elements	Varies	Site	Level 2 Deterioration	25
G20	Parking Lots	Paving and Surfacing, including minor site elements	Varies	Site	Level 2 Deterioration	25
G20	Pedestrian Paving	Paving and Surfacing, including both walkways and stairs	Varies	Site	Level 1 Operations Impacts	50
G20	Site Development	Fences and Gates	G2041	Site	Level 3 Appearance	15
G20	Site Development	Signage	G2044	Site	Level 3 Appearance	10
G20	Site Development	Site Furnishings	G2045	Site	Level 3 Appearance	18
G20	Site Development	Playing Fields and Courts: Baseball, softball fields	G2047	Site	Level 1 Operations Impacts	20
G20	Site Development	Playing Fields and Courts: Basketball, tennis courts	G2047	Site	Level 1 Operations Impacts	20
G20	Site Development	Playing Fields and Courts: Volleyball courts	G2047	Site	Level 1 Operations Impacts	20
G20	Site Development	Playing Fields and Courts: Skateboard parks (concrete)	G2047	Site	Level 1 Operations Impacts	20
G20	Site Development	Playing Fields and Courts: Open play areas	G2047	Site	Level 1 Operations Impacts	10
G20	Site Development	Playing Fields and Courts: Other soft courts	G2047	Site	Level 1 Operations Impacts	10
G20	Site Development	Miscellaneous utility equipment (including observed at-grade utilities other than storm drainage items)	Varies	Site	Level 2 Deterioration	0**
G20	Site Development	Playgrounds: Equipment	G2049	Site	Level 1 Operations Impacts	15
G20	Site Development	Playgrounds: Surfacing	G2049	Site	Level 1 Operations Impacts	5
G20	Landscaping	Parking: Shrubs and Trees	G2055	Site	Level 3 Appearance	10
G20	Landscaping	Parking: Turf and Grass	G2055	Site	Level 3 Appearance	10
G30	Storm Sewer	At-grade system components	Varies	Site	Level 2 Deterioration	50
G30	Storm Sewer	Below-grade system components	Varies	Site	Level 2 Deterioration	50
D50	Electrical Systems	Electrical service & components	Varies	Site	Level 2 Deterioration	25

***Site Development Miscellaneous: Useful life years varied by system and sub-system.*

The goal of projecting a multi-year capital renewal plan is to provide the City a long-range forecast of potential future needs for each park system, based on the current condition and estimated useful life. This approach will allow for the City to estimate when park systems are due for significant maintenance as well as full replacement, and budget accordingly.

To identify and forecast the multi-year capital renewal projection for Balboa Park, assessed in FY-2016, the assessment team reviewed the following to meet the project goal:

- Identify what systems exist at a park.
- Identify which systems present are maintained by the Parks and Recreation Department, and which ones are maintained by separate associations / organizations.
- Estimating when the system was installed, or when the system last had significant maintenance.
- Forecasting how many years of useful life remain for each park system, and when the system would need either significant maintenance, or full replacement. Projections for maintenance and replacement were based upon the assumption that all deficiencies identified in FY-2016 were addressed and corrected.



West Mesa

Capital Renewal Schedule

The Capital Renewal Schedule provided is intended to give the City a snapshot of both the FY-2016 capital and maintenance backlogs, and the projected maintenance and capital renewal costs for the 20-year forecasting period (2017 through 2036). Should the FY-2016 maintenance and capital backlogs not be completed in 2016, the backlogs would then roll over into FY-2017, and increase in accordance with the inflation percentage used for the 20-year forecasting period. The Capital Renewal Schedule is provided in Appendix C.

The determination of the amount of project maintenance and capital renewal was based on BOMA, the California Department of Transportation (Caltrans) Maintenance Technical Advisory Guide (MTAG), the 2011 Architectural Manual's Expected Useful Life Table prepared by the Washington State Department of Commerce, Office of Affordable Housing, and Kitchell's FM department recommendations. The following table illustrates the maintenance schedules assumed for each park system and/or element. The cost associated with each repair item was based on the maintenance needs for the highest occurring element within the system (example: parking lot costs were based on asphalt pavement maintenance requirements), or on a percentage of the estimated replacement cost for the system or element.

Table 6. Park Amenity Assessment Park Systems: Maintenance Schedule (Estimated)

Sys Code	System	Sub System	Sub System Code	Category	Priority	Maintenance Schedule
G20	Roadways	Paving and Surfacing, including minor site elements	Varies	Site	Level 2 Deterioration	Provide repairs every 2 years for 20% of roadway areas and 50% replacement every 10 years.
G20	Parking Lots	Paving and Surfacing, including minor site elements	Varies	Site	Level 2 Deterioration	Provide repairs every 2 years for 20% of roadway areas and 50% replacement every 10 years.
G20	Pedestrian Paving	Paving and Surfacing, including both walkways and stairs	Varies	Site	Level 1 Operations Impacts	Provide repairs every 5 years for 5% of concrete areas.
G20	Site Development	Fences and Gates	G2041	Site	Level 3 Appearance	5% of replacement cost applied for repairs every 3 years.
G20	Site Development	Signage	G2044	Site	Level 3 Appearance	5% of replacement cost applied for repairs every 3 years.
G20	Site Development	Site Furnishings	G2045	Site	Level 3 Appearance	10% of replacement cost applied for repairs every 5 years.
G20	Site Development	Playing Fields and Courts: Baseball, softball fields	G2047	Site	Level 1 Operations Impacts	5% of replacement cost applied for repairs every year.
G20	Site Development	Playing Fields and Courts: Basketball, tennis courts	G2047	Site	Level 1 Operations Impacts	5% of replacement cost applied for repairs every year.
G20	Site Development	Playing Fields and Courts: Volleyball courts	G2047	Site	Level 1 Operations Impacts	5% of replacement cost applied for repairs every 2 years.
G20	Site Development	Playing Fields and Courts: Skateboard parks (concrete)	G2047	Site	Level 1 Operations Impacts	5% of replacement cost applied for repairs every 2 years.
G20	Site Development	Playing Fields and Courts: Open play areas	G2047	Site	Level 1 Operations Impacts	5% of replacement cost applied for repairs every year.
G20	Site Development	Playing Fields and Courts: Other soft courts	G2047	Site	Level 1 Operations Impacts	5% of replacement cost applied for repairs every 2 years.
G20	Site Development	Miscellaneous utility equipment (including observed at-grade utilities other than storm drainage items)	Varies	Site	Level 2 Deterioration	5% of replacement cost applied for repairs every 5 years.
G20	Site Development	Playgrounds: Equipment	G2049	Site	Level 1 Operations Impacts	5% of replacement cost applied for repairs every year.
G20	Site Development	Playgrounds: Surfacing	G2049	Site	Level 1 Operations Impacts	10% of replacement cost applied for repairs every year.
G20	Landscaping	Parking: Shrubs and Trees	G2055	Site	Level 3 Appearance	5% of replacement cost applied for repairs every 5 years.
G20	Landscaping	Parking: Turf and Grass	G2055	Site	Level 3 Appearance	8% of replacement cost applied for repairs every 5 years.
G30	Storm Sewer	At-grade system components	Varies	Site	Level 2 Deterioration	10% of replacement cost applied for repairs every 5 years.
D50	Electrical Systems	Electrical service & components	Varies	Site	Level 2 Deterioration	2% of replacement cost applied for repairs every 5 years.

CITY OF SAN DIEGO CONCLUSIONS & RECOMMENDATIONS

Conclusions

The park amenity assessment performed for Balboa Park in FY-2016 followed typical approaches and methods for park amenity assessments, with minor revisions made in the analyses to accommodate City requirements for long-term planning and data incorporation. Routine meetings were held on a regular basis to ensure that Kitchell was meeting scope requirements and City needs for assessments and analysis.



East Mesa

As noted in previous sections of this document, the assessment team reviewed and assessed Balboa Park, in accordance with the scope developed with the City. The assessment team covered a total of 18,126,467 gross square feet (416 acres) of developed park area, with a total estimated Park Replacement Value (PRV) of \$257,287,408 for the developed areas. Maintenance and capital backlogs for Balboa Park totaled \$11,740,206 for FY-2016. Using the PCI ratings developed for the parks, Balboa Park received a rating of 5, indicating that the facilities are in an overall “Good” condition.

Detailed below is the PCI formula developed for the parks assessments, and a summary of the park amenity assessment findings by park area in FY-2016.

$$PCI = \frac{\text{Cost of Repairs for Assessed Systems}}{\text{Current Replacement Value of Assessed Systems}}$$

Park Area	Gross Square Footage (GSF)	Capital Backlog (FY-2016)	Maintenance Backlog (FY-2016)	Total Backlog (FY-2016)	Park Replacement Value (PRV) (FY-2016)	PCI
Central Mesa	8,069,701	\$ 5,580,674	\$ 174,282	\$ 5,754,956	\$ 143,487,360	4
East Mesa	6,394,081	\$ 2,355,045	\$ 96,802	\$ 2,451,847	\$ 70,854,717	3
West Mesa	3,665,685	\$ 3,460,974	\$ 72,429	\$ 3,533,403	\$ 42,945,331	8
Total	18,126,467	\$ 11,396,693	\$ 343,513	\$ 11,740,206	\$ 257,287,408	5

While the findings in this report identify potential action items regarding maintenance and capital backlog, the results did not produce any highly abnormal conclusions. The majority of the maintenance and capital backlog items related to normal usage, daily wear and tear, accelerated deterioration from a lack of maintenance, and expected damage resulting from system interaction (e.g. tree roots causing damage to adjacent hardscapes). Additionally, in some instances, park systems were observed to have accelerated damage where systems were not being used for their original functions (e.g. pedestrian walkway damage where maintenance staff use the pathways for vehicular access).

Recommendations

The results in the park amenity assessments for Balboa Park reveal the need to develop action plans to address both existing maintenance and capital backlogs, and provide for long-term planning for future maintenance and capital renewal items. Significant funding should be designated for both FY-2016 backlogs and future improvements identified in the 20-year Multi-Year Renewal plan.

In order to fully address the maintenance and capital backlogs identified during the assessment, as well as provide for future funding, we recommend the following action plans be developed. The first two recommendations focus on the existing park backlogs, and their ability to fulfil their mission and to serve the public demands.

Recommendation #1: FY-2016 Action Plan by Reliability Level

The first priority of the City should be to address maintenance and capital backlog items identified for Balboa Park. The purpose of this plan would be to address backlog items identified in the park amenity assessments as “Critical” or “Potentially Critical”, and to stop accelerated deterioration. The plan should first determine which of the park systems has the highest critical functions to the City based upon usage and accessibility. After this has been determined, the plan should provide a schedule for addressing backlog items by Reliability Level, beginning with Reliability Level 1 (Operations Impacts) and work through each level accordingly.

Recommendation #2: 20-Year Funding Plan by Reliability Level

Following the development of the FY-2016 action plan, the next step for maintenance of the parks should be to develop a plan to address future maintenance and capital renewal items for Balboa Park, based upon the existing site systems. As with the FY-2016 Action Plan, the plan should first determine which of the parks has the highest critical functions to the City based upon usage and accessibility. The plan should address not only schedules for the maintenance, but also perform a review of internal City staffing available to perform various maintenance work recommended, as well as develop an on-call list of vendors and companies that can be hired to perform additional work to support the City’s efforts. This plan will be critical to ensure that the park can continue to meet the needs of the public, by providing long-range planning.



West Mesa

In addition to addressing the mission of the park, another critical component to ensure that the City continues to meet the public demand is additional long-term planning to meet diverse changing and growing needs of the increasing population. The recommendation presented below focuses on future planning for Balboa Park.

Recommendation #3: Park Utilization Plan

One component of future planning for Balboa Park is to ensure that the park continues to meet the needs of the public they serve. A Balboa Park System Master Plan would review existing park facilities, the condition of those facilities, facility usage and long-term maintenance and capital renewal costs to determine where park efficiencies can be increased.

In conclusion, the results, findings and recommendations presented by this comprehensive report and the individual park amenity assessments by park area provide source information to assist the City with future planning and budgeting.

APPENDIX

Below is a list of Appendices that support and are applicable to the report results and findings of the Park Amenity Assessment (PAA) project. The Appendix is intended to provide detailed information to assist in referencing the summary information and exhibits found in the text of this document.

Appendix A

List of Park Areas Assessed and Standard PCI

Appendix B

List of Park Areas that received the Abbreviated Accessibility Assessment

Appendix C

Capital Renewal Schedule – Balboa Park

Appendix D

Glossary of Terms

Appendix E

Map of Assessment Areas

Appendix F

Park Amenity Assessments

Balboa Park – Central Mesa

Balboa Park – East Mesa

Balboa Park – West Mesa

APPENDIX A – LIST OF PARK AREAS ASSESSED AND STANDARD PARK
CONDITION INDEX (PCI)

Appendix A - List of Park Areas Assessed and Standard PCI

Facility No.	Description	Address	District	Actual Assessed SF	Department	Asset Type	Year Built	Total Capital Backlog	Total Maintenance Backlog	Total Replacement Backlog	Plant Replacement Value	Park PCI
PCI = 5												
	Central Mesa	1549 El Prado	3	8,069,701	Parks and Recreation	Regional	1915	\$ 5,580,674	\$ 174,282	\$ 5,754,956	\$ 143,487,360	4
	East Mesa	1549 El Prado	3	6,391,081	Parks and Recreation	Regional	1915	\$ 2,355,045	\$ 96,802	\$ 2,451,847	\$ 70,854,717	3
	West Mesa	1549 El Prado	3	3,665,685	Parks and Recreation	Regional	1915	\$ 3,460,974	\$ 72,429	\$ 3,533,403	\$ 42,945,331	8
	TOTAL			18,126,467				\$ 11,396,693	\$ 343,513	\$ 11,740,206	\$ 257,287,408	5

**APPENDIX B – LIST OF PARK AREAS THAT RECEIVED THE ABBREVIATED
ACCESSIBILITY ASSESSMENT**

Appendix B - List of Park Areas that Received the Abbreviated Accessibility Assessment

Facility No.	Description	Address	District	Actual Assessed SF	Department	Asset Type	Year Built	Year Assessed	Accessibility Survey	Total Accessibility Needs	Level 1 Operations Impacts	Total Replacement Backlog	Plant Replacement Value	Park PCI
PCI = 5														
	Central Mesa	1549 El Prado	3	8,069,701	Parks and Recreation	Regional	1915	2016	Yes	\$101,259	\$1,833,489	\$5,754,956	\$143,487,360	4
	East Mesa	1549 El Prado	3	6,391,081	Parks and Recreation	Regional	1915	2016	Yes	\$28,208	\$1,534,970	\$2,451,847	\$70,854,717	3
	West Mesa	1549 El Prado	3	3,665,685	Parks and Recreation	Regional	1915	2016	Yes	\$9,043	\$1,324,305	\$3,533,403	\$42,945,331	8
	TOTAL			18,126,467						\$138,510	\$4,692,764	\$11,740,206	\$257,287,408	5

APPENDIX C – CAPITAL RENEWAL SCHEDULE – BALBOA PARK

Appendix C - Capital Renewal Schedule - Balboa Park

System	2016 (\$)	2017 (\$)	2018 (\$)	2019 (\$)	2020 (\$)	2021 (\$)	2022 (\$)	2023 (\$)	2024 (\$)	2025 (\$)	2026 (\$)	2027 (\$)	2028 (\$)	2029 (\$)	2030 (\$)	2031 (\$)	2032 (\$)	2033 (\$)	2034 (\$)	2035 (\$)	2036 (\$)
SITE IMPROVEMENTS	\$ 10,498,126	\$ 935,879	\$ 5,603,779	\$ 2,223,832	\$ 5,600,609	\$ 7,004,475	\$ 9,471,013	\$ 1,493,869	\$ 8,620,782	\$ 2,655,371	\$ 93,349,223	\$ 1,257,745	\$ 12,053,744	\$ 1,334,340	\$ 10,293,666	\$ 13,791,971	\$ 10,920,551	\$ 2,007,638	\$ 16,661,022	\$ 1,593,272	\$ 236,427,679
Roadways	\$ 2,377,338	\$ -	\$ 1,940,661	\$ -	\$ 2,058,847	\$ -	\$ 2,184,231	\$ -	\$ 2,317,251	\$ -	\$ 30,256,872	\$ -	\$ 2,608,085	\$ -	\$ 2,766,919	\$ -	\$ 2,935,424	\$ -	\$ 3,114,191	\$ -	\$ 40,662,706
Parking Lots	\$ 3,218,716	\$ -	\$ 2,696,596	\$ -	\$ 2,860,818	\$ -	\$ 3,035,042	\$ -	\$ 3,219,876	\$ -	\$ 52,553,324	\$ -	\$ 3,623,998	\$ -	\$ 3,844,699	\$ 937,790	\$ 4,078,843	\$ -	\$ 4,327,244	\$ -	\$ 70,627,271
Pedestrian Paving	\$ 628,334	\$ -	\$ -	\$ -	\$ -	\$ 1,477,128	\$ -	\$ -	\$ -	\$ -	\$ 1,712,397	\$ -	\$ -	\$ -	\$ -	\$ 1,985,136	\$ -	\$ -	\$ -	\$ -	\$ 2,301,317
Site Development: Fencing, Walls, Signage, Other	\$ 24,902	\$ -	\$ -	\$ 1,230,957	\$ -	\$ 74,946	\$ 1,345,098	\$ -	\$ -	\$ 1,469,827	\$ 455,461	\$ -	\$ 1,606,117	\$ -	\$ -	\$ 1,855,770	\$ -	\$ -	\$ 1,917,790	\$ -	\$ 41,525,020
Site Development: Furnishings	\$ 31,888	\$ -	\$ -	\$ -	\$ -	\$ 215,018	\$ -	\$ -	\$ -	\$ -	\$ 249,265	\$ -	\$ -	\$ -	\$ -	\$ 288,967	\$ -	\$ -	\$ 3,157,619	\$ -	\$ 334,992
Site Development: Playing Fields and Courts	\$ 47,736	\$ 621,358	\$ 2,258,557	\$ 659,199	\$ 2,396,103	\$ 699,344	\$ 2,542,026	\$ 741,934	\$ 2,696,834	\$ 787,118	\$ 2,861,073	\$ 835,054	\$ 3,035,311	\$ 885,908	\$ 3,220,163	\$ 939,860	\$ 3,416,269	\$ 997,098	\$ 3,624,322	\$ 1,057,821	\$ 36,713,852
Site Development: Playgrounds	\$ 4,016,694	\$ 314,521	\$ 648,626	\$ 333,676	\$ 343,688	\$ 2,472,207	\$ 364,616	\$ 751,935	\$ 386,821	\$ 398,426	\$ 2,865,966	\$ 422,691	\$ 1,180,233	\$ 448,432	\$ 461,885	\$ 5,008,145	\$ 490,015	\$ 1,010,540	\$ 519,856	\$ 535,451	\$ 3,851,617
Accessibility	\$ 138,510	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Landscaping	\$ 14,008	\$ -	\$ -	\$ -	\$ -	\$ 2,065,832	\$ -	\$ -	\$ -	\$ -	\$ 2,394,865	\$ -	\$ -	\$ -	\$ -	\$ 2,776,303	\$ -	\$ -	\$ -	\$ -	\$ 40,410,904
CIVIL UTILITIES	\$ 871,802	\$ -	\$ -	\$ -	\$ -	\$ 130,253	\$ -	\$ -	\$ -	\$ -	\$ 150,999	\$ -	\$ -	\$ -	\$ -	\$ 175,049	\$ -	\$ -	\$ -	\$ -	\$ 202,929
Above-Ground Stormwater	\$ 120,788	\$ -	\$ -	\$ -	\$ -	\$ 130,253	\$ -	\$ -	\$ -	\$ -	\$ 150,999	\$ -	\$ -	\$ -	\$ -	\$ 175,049	\$ -	\$ -	\$ -	\$ -	\$ 202,929
Underground Utilities	\$ 751,014	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ELECTRICAL	\$ 370,278	\$ -	\$ -	\$ -	\$ -	\$ 40,832	\$ -	\$ -	\$ -	\$ -	\$ 47,335	\$ -	\$ -	\$ -	\$ -	\$ 86,284	\$ -	\$ -	\$ -	\$ -	\$ 63,615
TOTALS	\$ 11,740,206	\$ 935,879	\$ 5,603,779	\$ 2,223,832	\$ 5,600,609	\$ 7,175,560	\$ 9,471,013	\$ 1,493,869	\$ 8,620,782	\$ 2,655,371	\$ 93,547,557	\$ 1,257,745	\$ 12,053,744	\$ 1,334,340	\$ 10,293,666	\$ 14,053,304	\$ 10,920,551	\$ 2,007,638	\$ 16,661,022	\$ 1,593,272	\$ 236,694,223

APPENDIX D – GLOSSARY OF TERMS

APPENDIX D – GLOSSARY OF TERMS

Abbreviated Accessibility: This term is used when referencing needs associated with repair, replacement, or modification of a site system to achieve selected accessibility barrier removal.

ADA: Americans with Disability Act

BOMA: Building Owners and Managers Association

Backlog: Term used to refer to deficiencies for facility components, equipment or whole system that needs to be resolved.

Budgeting: A process and method using and estimate of incoming and expenditure is adjusted to account for operational realities in order to provide for the cost of maintaining facilities. Traditional budgeting issues may include anticipated needs, organizational growth, the acquisition of new assets, operations and maintenance, deferred maintenance and insurance.

Building: An enclosed and roofed structure that can be traversed without exiting to the exterior.

Capital Renewal: Projected or future replacements (excluding suitability and energy audit work) that include the replacement of park systems or elements that have or will reach the end of their life cycle in the future.

Capital / Capital Planning: Process of planning expenditures on assets whose cash flows are expected to extend beyond one year. The planning takes into consideration the funding available, the firm's priorities and the anticipated return on investment. Capital planning considers a broad range of financial considerations (such as the cost of capital, organizational risk, and return on investment...), over an extended timeline so as to more effectively predict and manage the fiscal requirements of a real estate portfolio.

Calculated Next Renewal: The year a system or element would be expected to expire, based solely on the date it was installed and the expected service life of the system.

Condition: Condition referred to the state of physical fitness or readiness of a facility, system or systemic element for its intended use.

Cost Model: Parametric equations used to quantify the condition of building systems and estimate the cost necessary to sustain a facility over a given set of reporting periods. These estimated costs can be presented over a timeline to represent a capital renewal schedule.

Current Replacement Value (CRV): CRV is a standard industry cost estimate of materials, supplies and labor requires to replace facility at existing size and functional capability. Please note that the terms Park Replacement Value and Current Replacement Value have the same meaning in the context of determining Facility Condition Index.

Deferred Maintenance or Maintenance Backlog: Is condition work (excluding suitability and energy audit needs) deferred on a planned or unplanned basis to a future budget cycle or postponed until funds are available.

Deficiency: A deficiency described a condition in which there exists the need to repair a park system or component that is damaged, missing, inadequate or insufficient for on intended purpose.

Element: Major components that compromise park systems.

Facility: A facility refers to site(s), building(s), or building addition(s) or combinations thereof that provide a particular service or support of an educational purpose.

Facility Condition Index (FCI): FCI is an industry-standard measurement of a facility's condition that is the ratio of the cost to correct a facility's backlog requirements to the Park Replacement Value of the facilities – the higher the FCI, the poorer the condition of the facility. After an FCI is established for all facilities within a portfolio, a facility's condition can be ranked relative to

other facilities, The FCI may also represent the condition of a portfolio based on the cumulative FCI of the portfolio's facilities.

Gross Square Feet (GSF): The size of a park within the defined property boundary in square feet.

Hard or Direct Costs: Direct costs incurred in relation to a specific construction project. Hard costs may include labor, materials, equipment, etc.

Inflation: The trend of increasing prices from one year to the next, representing the rate at which the real value of an investment is eroded and the loss in spending power over time.

Interest: The charge for the privilege of borrowing money, typically expressed as an annual percentage rate and commonly calculated using simple or compound interest calculations.

Life Cycle: The period of time that a system or element can be expected to adequately serve its intended function.

Maintenance: Work necessary to realize the originally anticipated life of a fixed asset, including buildings, fixed equipment and infrastructure. Maintenance is preventative, whereas repairs are curative.

NACUBO: Refers to the National Association of College and University Business Officers (NACUBO). NACUBO published their version and method for calculating the Facility Condition Index (FCI) in 1991 which is widely recognized and a means of measuring facility condition.

Next Renewal: The assessor adjusted expected useful life of a system or element as a result of on-site inspection.

Nominal Value: A value expressed in monetary terms for a specific year or years, without adjusting for inflation – also known as face value or par value.

Operations: Activities related to normal performance of the functions for which a building is used (e.g., utilities, janitorial services waste treatment).

O&M: Operations and Maintenance

Park Amenity Assessment (PAA): The process of performing a physical evaluation of the condition of a facility and its systems.

Park Condition Index (PCI): Revised Facility Condition Index (FCI); the PCI includes developed areas of parks included with the assessments. Costs for the PCI include site roadways, parking lots, playing fields and courts, playgrounds, above-ground storm drainage structures, landscaping, and other miscellaneous items identified within the developed park areas.

Park Replacement Value (PRV): Cost to design and construct a notional facility to current standards to replace an existing facility at the same location.

Present Value (PV): The current worth of a future sum of money or stream of cash flows given a specified rate of return. Future cash flows are discounted at a client specified discount rate.

Reliability Level: Reliability levels are used to determine and categorize the importance and priority of park systems.

Repairs: Work to restore damages or worn-out facilities to normal operating condition. Repairs are curative, whereas maintenance is preventative.

Replacements: An exchange of one fixed asset for another that has the same capacity to perform the same function. In contrast to repair, replacement generally involves a complete identifiable item of reinvestment (e.g., a major building component or subsystem).

Return on Investment (ROI): ROI is a financial indicator used to evaluate the performance of an investment as a means to compare benefit.

Rough Order of Magnitude (ROM): ROM cost estimates are the most basic of cost estimate classifications.

RS Means: An independent third party provider of building industry construction cost data.

Site: A facility's grounds and its utilities, roadways, landscaping, fencing and other typical land improvements needed to support the facility.

Soft Costs: Indirect costs incurred in addition to the direct construction cost. Soft costs may include professional services, financing, taxes, etc.

System: System refers to building and related site work elements as described by ASTM Uniformat II, Classification for Building Elements (E1557-97), and a format for classifying major facility elements common to most buildings. Elements usually perform a given function, regardless of the design specification, construction method or materials used. See also, "Uniformat II".

Uniformat II: Uniformat II (commonly referred to simply as Uniformat), is ASTM Uniformat II, Classification for Building Elements (E1557-97) – A methodology for classifying major facility components common to most buildings.

Year Built: The year that a park was originally built, based on substantial completion.

APPENDIX E – MAP OF ASSESSMENT AREAS

WEST MESA

CENTRAL MESA

EAST MESA



0 500 1,000 2,000
Feet

 **Assessment Areas**

BALBOA PARK



THE CITY OF SAN DIEGO

Report to the City Council

DATE ISSUED: July 21, 2017

REPORT NO. 17-044

ATTENTION: Honorable Council President Myrtle Cole and Councilmembers

SUBJECT: Balboa Park Water and Sewer Infrastructure

REQUESTED ACTION: This report is for information purposes only.

STAFF RECOMMENDATION: Accept the report.

BACKGROUND:

The Public Utilities Department (Department) provides services to approximately 1.4 million water customers and 2.5 million wastewater customers within the San Diego region. The Department's Capital Improvement Program (CIP) supports the infrastructure to ensure reliable water supply and wastewater collection and treatment.

The purpose of this report is to provide a summary of the condition of existing water and sewer infrastructure as well as planned CIP projects located within the Balboa Park area.

Water and Sewer Condition Assessment Program:

With one of the most complex water and wastewater systems in the region, the Department has developed a robust and comprehensive system-wide condition assessment program.

The water system contains approximately 3,300 miles of water transmission and distribution mains. Approximately 2,150 miles (65 percent) are Asbestos Cement (AC) pipes, of which 8.50 miles are within the premises of Balboa Park with sizes ranging from six to 36 inches in diameter. In 2013, the Department retained Arcadis consultant to develop an AC Water Main Replacement Master Plan (Master Plan) using an asset management risk based approach that would maintain the City of San Diego's (City) current service levels to customers. The Master Plan identified approximately 189 miles of AC priority mains in need of replacement, which includes 1.60 miles in the Balboa Park area. The AC pipes in Balboa Park are part of a proposed CIP developed for the next 10 years. The CIP also includes the replacement of the remaining cast iron pipes in the system.

The Department is also assessing transmission pipelines and scheduling the replacement of these pipelines based on the condition of existing facilities, system needs and available funds.

On the wastewater side, the Department is responsible for managing a system with approximately 3,100 miles of sanitary sewer pipelines which include collection mains, trunk sewers, and major interceptors. In 2001, the Department started the

sewer condition assessment program, which included a minimum of 40 miles of sewer condition assessment every year. The Department bolstered its condition assessment program in 2013 by increasing the minimum per year assessment to 60 miles. Of the total 1985 miles assessed citywide, 11.19 miles were within the premises of Balboa Park.

Water & Sewer Infrastructure in Balboa Park

Less than one percent or 30.91 miles of the City’s water and sewer mains fall within the Balboa Park boundary. Of the total, 19.04 miles are water mains and 11.87 miles are sewer mains.

There are approximately 21.37 miles of water mains within the Balboa Park boundary with diameter sizes ranging from six inches to 36 inches, of which 19.04 miles are City owned and 2.33 miles are privately owned. Of the 19.04 miles, approximately 3.35 miles have been replaced. Of the remaining 15.69 miles, there are approximately 3.58 miles of water mains that are part of CIP projects, 8.50 miles that have had condition assessment (as part of AC Master Plan), and 3.61 miles are currently scheduled for assessment.

The sewer mains in Balboa Park consist of approximately 14.63 miles with diameter sizes ranging from six inches to 24 inches, of which 11.87 miles are City owned and 2.76 miles are privately owned. Of the 11.87 miles, 6.09 miles have been replaced or rehabilitated, 1.98 miles have been assigned to CIP projects, 3.12 miles have been assessed (maintenance, rehabilitation, or replacement) to determine if the pipes need to be grouped into future CIP projects, and the remaining 0.68 mile is currently under evaluation for future inspection (refer to the attached map for existing infrastructure and planned CIP projects).

WATER

Material	Length (mi)	Sizes (in)	Year Installed
AC	10.08	6 - 24	1942 - 1998
CI	4.66	6 - 30	1931 - 1966
CICL	0.37	6	1960
DI	0.05	10	1999
PVC	2.14	6 - 16	1973 - 2015
SCRW	4.07	8 - 36	1942 - 1981
TOTAL	21.37		

SEWER

Materials	Length (mi)	Sizes (in)	Year Installed
CI	0.39	6 - 8	1952
CIPP	1.93	6 - 15	2009 - 2011
CP	0.64	6 - 8	1950
DI	0.64	8 - 12	1952
HDPE	0.14	8	2015
PVC	4.07	8 -24	1978 - 2016
VC	6.83	24	1929 - 2006
TOTAL	14.63		

- AC – Asbestos Cement
- CI – Cast Iron
- DI- Ductile Iron
- RCSC – Reinforced Concrete Steel Cylinder
- PVC – Polyvinyl Chloride
- CICL – Cast Iron Concrete Lined
- CIPP – Cured-in-Place Pipe (trenchless rehabilitation)
- CP – Concrete Pipe
- HDPE – High-Density Polyethylene Pipe
- VC – Vitrified Clay

Capital Improvements Program

The Department’s CIP Guidelines and Standards provide the framework for the design and construction of new water and sewer facilities and address water efficiency, conservation, recycled and reclaimed water, cost effectiveness, and timely construction.

In a continuing main replacement program, deteriorated and deficient sewer and water mains are being replaced, and the Department schedules many of these water and sewer main replacement projects for the same time and location to minimize the impact on the community and the park’s operations. Replacement is currently scheduled based on condition assessment results and breaks or blockages in the mains. As incidents increase, main replacement is scheduled for accomplishment through the annual CIP.

The Department monitors and maintains the water and sewer systems on an ongoing basis because of the age of the water and sewer infrastructure within the premises of the park and the surrounding areas. Below is a list of CIP projects in the Balboa Park and surrounding area.

Planned Capital Improvements Projects in Balboa Park

TITLE	CIP Status	Start Construction	End Construction
AC Water & Sewer Group 1025 (W)	Bid and Award	Aug-17	Nov-18
Sewer Group 691	Construction	Jan-15	Jun-17
Sewer Lateral Rehab Projects J-2	Construction	Dec-15	Oct-18
Upas Street Pipeline Replacement Project	Construction	Mar-14	Jul-18
Balboa Park Water Main Replacement Phase I	Design	Aug-18	Oct-19
Plaza De Panama	Design	Mar-18	Sep-19
Sewer Group 828	Design	Sep-19	Aug-20
Water Group Job 952	Design	Jan-18	Oct-18
Balboa Park Water Main Replacement Phase II	Planning	Apr-20	Dec-21
Balboa Park Water Main Replacement Phase III	Planning	Oct-20	Jun-22
AC Priority 1 and 2	Planning	Jan-19	Jun-22

Halla Razak
 for Halla Razak, Director
 Public Utilities Department

Paz Gomez
 Paz Gomez, PE, CEM, GBE
 Deputy Chief Operating Officer
 Infrastructure/Public Works

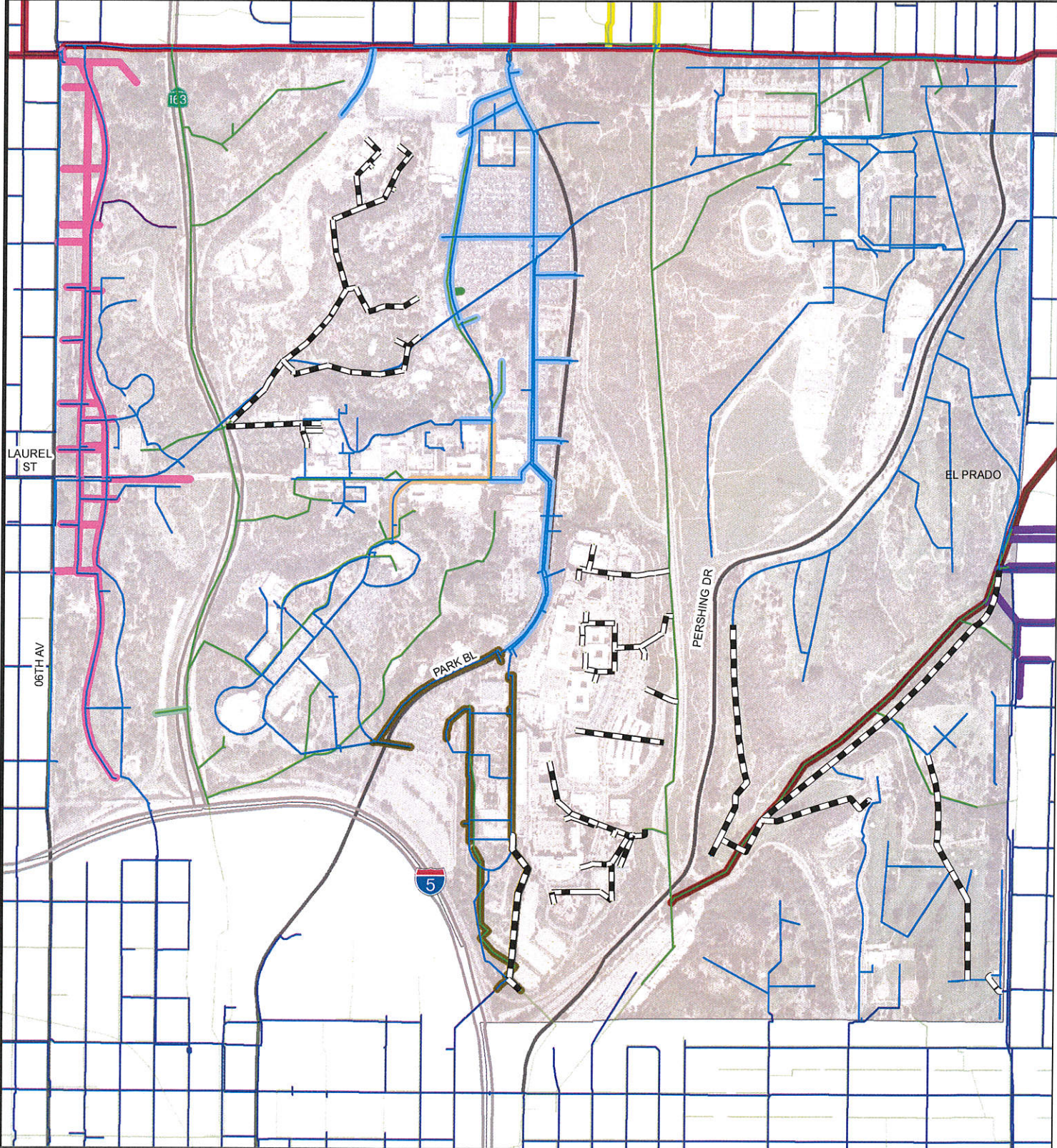
Existing Water and Sewer Infrastructure and Planned CIP

Attachment



Every reasonable effort has been made to assure the accuracy of this map. However, neither the SanGIS participants nor San Diego Data Processing Corporation assume any liability arising from its use.

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Legend

- PRIVATE (W & S)
- Water
- Sewer
- AC Water & Sewer Group 1025 (W)
- Balboa Park Water Main Replacement Phase 1
- Balboa Park PL Replacement Phase II
- Balboa Park PL Replacement Phase III
- Plaza De Panama
- Sewer Group 691
- Sewer Group 828
- Sewer Group 836
- Sewer Lateral Rehab Projects J-2
- Upas_Street_Pipeline_Replacement_Project
- Freeways
- Major Roads