

# Capital Improvement Department-29



37th Street Improvements



SF Bay Trail

**Mission:** To enhance the City's physical environment, including infrastructure, community facilities and City-owned properties, to the greatest degree possible as efficiently as possible, in order to promote economic vitality and enhance the quality of life of the citizens in Richmond.

## **Overview:**

The CIP Department undertakes the planning and design of the City's Capital Improvement Plan and administers public and public-private partnership projects that enhance the City's infrastructure and overall physical environment, consistent with the policies of the General Plan. As part of its mission, the CIP Department also manages city-owned properties and former Successor Agency properties held by the City for development. The City has over 280 miles of streets, 130 traffic signals, and 8,000 street lights.

## **Design Division**

A major function of Engineering is the design of public infrastructure which includes streets, bridges, parks, and public buildings. Most projects include a community engagement component where the projects are designed with public participation.

## **Construction Division**

After projects are designed, publicly bid, and constructed by private contractors, Engineering inspectors inspect the projects to ensure quality work is achieved. Staff also inspect new subdivision improvements and encroachment permits within the City's right-of-way.

## **Traffic Division**

The Traffic Engineering Division handles all citizen service requests, including traffic safety concerns, speed hump requests, signage and striping upgrades, and parking control. The Division is responsible for traffic signal timing and coordination at City-owned traffic signals in addition to the coordination of signal operations at state-owned traffic signals. Traffic Engineering staff also provide traffic counts to prospective business and commercial developers.

# Capital Improvement Department-29

## Land Development Division

This Division reviews the design of all work within the public right-of-way and streets proposed on new residential and commercial developments. Staff ensures that land development plans conform to City standard details, specifications, policies, and practices, as well as zoning and subdivision ordinances.

## Pavement Improvements

The City is continuously studying new technology to maximize limited funds and better preserve the existing pavement infrastructure. Staff is exploring the option of using asphalt rubber as a pavement material. To add to the City's existing array of pavement preservation applications, staff will be utilizing several different pavement preservation techniques such as more extensive crack sealing, use of fog seals and pavement rejuvenators, and applying thicker, double applications of seal coats.

In this next fiscal year we will continue to rehabilitate pavement. We will also be applying preventative maintenance seal treatments to various streets in an effort to extend the service life of the pavement. Areas with significant ride-ability issues, such as large failed areas, potholes, and other safety concerns, will be addressed through localized spot rehabilitation. Response to customer complaints and other corrective maintenance requests will continue in order to keep streets in a safe, operable condition.

## Pedestrian Access Improvements

The annual sidewalk repair and curb ramp program will continue. This program eliminates tripping hazards created by the roots of City trees uplifting the sidewalk. This program has been implemented to reduce the number of trip and fall claims against the City. As part of the City's Americans with Disabilities Act (ADA) program, we will be preparing a Transition Plan that will outline the City's policy of installing curb ramps throughout the City. We will continue to meet the requests for curb ramps as funding permits.

## Street Light Improvements

In a recent survey rating City services, the City's street lighting system received some very low marks. Citizens completing the survey stated that the streets are too dark and that it is unsafe to walk around the City at night. Staff has already begun working with PG&E to design a new lighting system that would eliminate five areas in the City that still operate under the old series circuit system. This system functions like a string of old Christmas lights. If one light in the system goes out, the whole circuit goes out.

Energy costs to operate the existing street light system and the traffic signals continue to be a major concern. A recent analysis by City staff on new and more energy-efficient street lighting technologies concluded that there are emerging technologies on the horizon that could eventually reduce the ongoing costs for electricity. Staff has identified and implemented several pilot projects testing the use of energy-efficient Light Emitting Diodes (LED) technology for traffic signals and street lights with positive results.

## Capital Improvement Department-29

### Traffic Safety Improvements

The Traffic Safety Program continues to successfully mitigate traffic impacts in neighborhoods by funding the most basic traffic mitigations such as traffic control signs and roadway markings. The Department will continue having an independent speed hump contract and also looking into the possibility of using traffic circles and bulb outs. This year, we will have an outreach component to the program and solicit from each neighborhood council their number one traffic safety concern. Based on an objective analysis, each concern will be prioritized with an appropriate solution and preliminary cost estimate and programmed into multiple future fiscal years of the CIP program.

# Capital Improvement Department-29

## Plan Highlights

### Carlson Boulevard Improvement

Project Cost: \$603,371  
Funding Source: Grants  
Measure J

This project includes the design and construction of bicycle lanes along Carlson Boulevard to provide a continuous bikeway from the existing bike lanes on Carlson Boulevard at San Pablo Avenue in El Cerrito north to Broadway, near Richmond Civic Center.

### I-80 Central Interchange

Project Cost: \$2,970,000  
Funding Sources: Measure J

This project is a two phased effort to improve traffic congestion at the I-580/I-80/Central Avenue area. Phase I includes signalization of intersections currently configured as all-way stops and the installation of variable message signs (VMS). The VMS will be configured to prohibit left turns onto westbound I-80 from Central during weekend peak periods, redirecting this traffic to eastbound I-580. This project is wholly funded by grants, including a Federal earmark and Measure J.

### Richmond Greenway Ohlone Gap Closure

Project Cost: \$1,600,938  
Funding Sources: Grants  
General Capital  
Measure J

This project is needed to close the gap between Richmond and Ohlone greenways. It will provide the residents a safe non-polluting access to El Cerrito BART Station.

### Richmond Parkway Interconnect Traffic System

Project Cost: \$500,000  
Funding Sources: Measure J

## Capital Improvement Department-29

This project includes the rehabilitation of the existing traffic signal interconnect systems and installation of video monitoring systems at all Richmond Parkway interceptions.

### Signal Modification Barrett Avenue I-80 WB Ramps

Project Cost: \$95,000  
Funding Sources: Measure J

Modify existing traffic signal to provide protected left turns on Westbound Barrett Avenue to Southbound I-80.

## Capital Improvement Department-29 CIP Overview

CIP Project(s)	Performance Benchmarks	2016-17 1-yr Goal	2016-17 1 <sup>st</sup> Qtr. Target	2016-17 2 <sup>nd</sup> Qtr. Target	2016-17 3 <sup>rd</sup> Qtr. Target	2016-17 4 <sup>th</sup> Qtr. Target
<b>1.29.a: 37<sup>th</sup> Street Improvement</b>						
	RFP	100%	100%	*	*	*
	Design Contract	100%	100%	*	*	*
	Design	100%	-	50%	100%	*
	Construction Management Contract	100%	-	-	-	100%
	Construction	100%	-	-	-	100%
<b>1.29.b: Carlson Blvd. Improvement</b>						
	RFP	100%	100%	*	*	*
	Design Contract	100%	100%	*	*	*
	Design	100%	-	50%	100%	*
	Construction Management Contract	100%	-	-	-	100%
	Construction	100%	-	-	-	100%
<b>1.29.c: Cutting Carlson Grade Crossing Improvements</b>						
	Design	100%	100%			
	Construction Management Contract	100%	-	50%	100%	*
	Construction	100%	-	-	50%	100%
<b>1.29.d: Fire Station 66 Roof Replacement</b>						
	Construction	100%	50%	100%	*	*
<b>1.29.e: Harbour Way Improvement</b>						
	RFP	100%	100%	*	*	*
	Design Contract	100%	-	100%	*	*
	Design	100%	-	-	50%	100%

1. Maintain and Enhance The Physical Environment

2. Promote a Safe and Secure Community

3. Promote Economic Vitality

4. Promote Sustainable Communities

5. Promote Effective Government

=Performance Benchmarks

=Work Completion Targets

\* = Work Completed

# Capital Improvement Department-29

## CIP Overview

CIP Project(s)	Performance Benchmarks	2016-17	2016-17	2016-17	2016-17	2016-17
		1-yr Goal	1 <sup>st</sup> Qtr. Target	2 <sup>nd</sup> Qtr. Target	3 <sup>rd</sup> Qtr. Target	4 <sup>th</sup> Qtr. Target
<b>1.29.f: I-80 Central Interchange Phase I</b>						
	RFP	100%	100%	*	*	*
	Construction Management Contract	100%	50%	100%	100%	*
	Construction	100%	-	-	50%	100%
<b>1.29.g: Martin Luther King Jr. Center</b>						
	Study	100%	25%	75%	100%	*
<b>1.29.h: Mathieu Court/Emerald Alley Greening</b>						
	Construction	100%	100%	*	*	*
<b>1.29.i: Railroad Crossing Improvements Quiet Zones</b>						
	Construction	100%	25%	50%	75%	100%
<b>1.29.j: Richmond Greenway Ohlone Gap Closure</b>						
	Design	100%	100%	*	*	*
	Construction Management Contract	100%	100%	*	*	*
	Construction	100%	25%	50%	75%	100%
<b>1.29.k: Richmond Parkway Interconnect Traffic System</b>						
	Construction	100%	25%	50%	100%	*
<b>1.29.l: Safe Routes to School/Cycle 1</b>						
	Construction Management Contract	100%	10%	50%	100%	*
	Construction	100%	10%	50%	100%	*
<b>1.29.m: San Pablo Ave. Complete Street</b>						
	Design Contract	100%	100%	*	*	*
	Design	100%	-	50%	100%	*
	Construction Management Contract	100%	-	-	-	100%
	Construction	25%	-	-	-	25%

1. Maintain and Enhance The Physical Environment

2. Promote a Safe and Secure Community

3. Promote Economic Vitality

4. Promote Sustainable Communities

5. Promote Effective Government

=Performance Benchmarks

=Work Completion Targets

\* = Work Completed

## Capital Improvement Department-29 CIP Overview

CIP Project(s)	Performance Benchmarks	2016-17	2016-17	2016-17	2016-17	2016-17
		1-yr Goal	1 <sup>st</sup> Qtr. Target	2 <sup>nd</sup> Qtr. Target	3 <sup>rd</sup> Qtr. Target	4 <sup>th</sup> Qtr. Target
<b>1.29.n: SF Bay Trail Goodrick Avenue</b>						
Design		100%	50%	75%	100%	*
<b>1.29.o: SF Bay Trail (Pt. Richmond to Pt. Molate)</b>						
Study		100%	25%	50%	75%	100%
<b>1.29.p: Signal Modification at Barrett I-80 Ramps</b>						
Construction		100%	25%	50%	75%	100%
<b>1.29.q: Street Paving</b>						
Construction		100%	25%	50%	75%	100%
<b>1.29.r: Traffic Safety Improvements</b>						
Construction		100%	25%	50%	75%	100%

1. Maintain and Enhance The Physical Environment
2. Promote a Safe and Secure Community
3. Promote Economic Vitality
4. Promote Sustainable Communities
5. Promote Effective Government

=Performance Benchmarks  
 =Work Completion Targets  
 \* = Work Completed

### FY2016-17 to FY2020-21 Capital Improvement Plan

## Capital Improvement Department-29 CIP Overview

### TOTAL CIP BUDGET - HISTORICAL COMPARISON

	FY2015-16 Adopted	FY2015-16 Actual 3/31/2016	FY2016-17 Adopted	FY2017-18 Proposed	FY2018-19 Proposed	FY2019-20 Proposed	FY2020-21 Proposed	5 Year Total
<b>SOURCES BY FUND</b>								
Gas Tax - 1002	4,417,662	2,057,546	2,572,132	2,503,000	2,503,000	2,503,000	2,503,000	12,584,132
Grants - 1054	6,573,827	1,696,462	2,285,688					2,285,688
CDBG - 1201	1,601,778	475,066	-					-
General Capital - 2001	3,585,392	797,415	1,607,059					1,607,059
Measure J - 2002	3,270,141	1,065,494	5,363,123	1,340,000	1,340,000	1,340,000	1,340,000	10,723,123
Recreation/Aquatic Impact Fee - 2115	150,000	131,863						-
<b>Sources Total</b>	<b>19,598,800</b>	<b>6,223,846</b>	<b>11,828,002</b>	<b>3,843,000</b>	<b>3,843,000</b>	<b>3,843,000</b>	<b>3,843,000</b>	<b>27,200,002</b>
<b>USES BY PROJECT</b>								
2015 Pavement Rehabilitation	4,322,574	1,664,089						-
37th Street Improvement	386,360		462,054					462,054
Americans with Disabilities Act (ADA) Misc. Sidewalk Repairs	311,258	60,424		500,000	500,000	500,000	500,000	2,000,000
ADA Rehabilitation/Auditorium - CDBG	1,116,635	9,859						-
ADA Rehabilitation/Main Library - CDBG	136,594	136,594						-
ADA Rehabilitation/Parcester Center - CDBG	4,486							-
ADA Rehabilitation/Senior Center - CDBG	342,932	327,482						-
ADA Rehabilitation/Shields-Reid Center - CDBG	1,130	1,130						-
Carlson Blvd. Improvements	614,100	2,170	603,371					603,371
Crosswalk Improvements	50,000	25,888						-
Cutting Carlson Grade Crossing - Phase II	519,782	512,978	385,550					385,550
Fire Station 66 Roof Replacement			58,574					58,574
Harbour Way Improvements	91,560		388,060					388,060
I-80 Central Interchange			2,970,000					2,970,000
Kennedy Swim Center	150,000	131,863						-
Martin Luther King Jr. Center	347,692		267,692					267,692
Mathieu Court Greening/Emerald Alleys	659,558	322,352	19,300					19,300
Membership & Dues	140,000	9,846	140,000	140,000	140,000	140,000	140,000	700,000
Moody Underpass	424,114	60,686						-
Railroad Crossing Improvements Quiet Zones	114,575	15,419	70,156					70,156
Recreation Complex Roof	144,340	144,340						-
Richmond Greenway Ohlone Gap Closure	1,790,062	48,734	1,600,938					1,600,938
Richmond Parkway Interconnect Traffic System			500,000					500,000
Richmond Parkway Lighting	174,935	174,935						-
Safe Route to School/Cycle 1	722,303	8,084	40,000					40,000
San Pablo Avenue Complete Street	351,220		351,220					351,220
SF Bay Trail Goodrick Avenue	184,400	10,486	48,250					48,250
SF Bay Trail (Kaiser Shipyard #3 to Ferry Point)		14,300						-
SF Bay Trail (Pt. Richmond to Pt. Molate) - CCTA	81,200		81,200					81,200
SF Bay Trail (Pt. Richmond to Pt. Molate) - UUT	1,289,842		1,180,637					1,180,637
Signal Modification Barrett Avenue I-80 WB Ramps			95,000					95,000
Street Audit Report	3,000	1,845	3,000	3,000	3,000	3,000	3,000	15,000
Street Lighting Rehabilitation	1,609,766	479,274						-
Street Paving	3,090,000	1,818,477	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	12,500,000
Surface Drainage	116,000	22,274		400,000	400,000	400,000	400,000	1,600,000
Traffic Safety Improvements	150,000	61,935	63,000	300,000	300,000	300,000	300,000	1,263,000
Westside Branch Library	158,382	158,382						-
<b>USES-BY PROJECT TOTAL</b>	<b>19,598,800</b>	<b>6,223,846</b>	<b>11,828,002</b>	<b>3,843,000</b>	<b>3,843,000</b>	<b>3,843,000</b>	<b>3,843,000</b>	<b>27,200,002</b>

## Capital Improvement Department-29 CIP Overview

### TOTAL CIP BUDGET - HISTORICAL COMPARISON

	FY2015-16 Adopted	FY2015-16 Actual 3/31/2016	FY2016-17 Adopted	FY2017-18 Proposed	FY2018-19 Proposed	FY2019-20 Proposed	FY2020-21 Proposed	5 Year Total
<b>USES BY ORG CODE</b>								-
Gas Tax - 10291331	4,417,662	2,057,546	2,572,132	2,503,000	2,503,000	2,503,000	2,503,000	12,584,132
CDBG - 12138962	1,601,778	475,066	-	-	-	-	-	-
Grants - 15491331	6,573,827	1,696,462	2,285,688	-	-	-	-	2,285,688
General Capital - 20191331	3,585,392	797,415	1,607,059	-	-	-	-	1,607,059
Measure J - 20291331	3,270,141	1,065,494	5,363,123	1,340,000	1,340,000	1,340,000	1,340,000	10,723,123
Recreation/Aquatics Impact Fee - 21551051	150,000	131,863	-	-	-	-	-	-
<b>TOTAL CIP BUDGET</b>	<b>19,598,800</b>	<b>6,223,846</b>	<b>11,828,002</b>	<b>3,843,000</b>	<b>3,843,000</b>	<b>3,843,000</b>	<b>3,843,000</b>	<b>27,200,002</b>

## FY2016-17 to FY2020-21 Capital Improvement Plan

**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

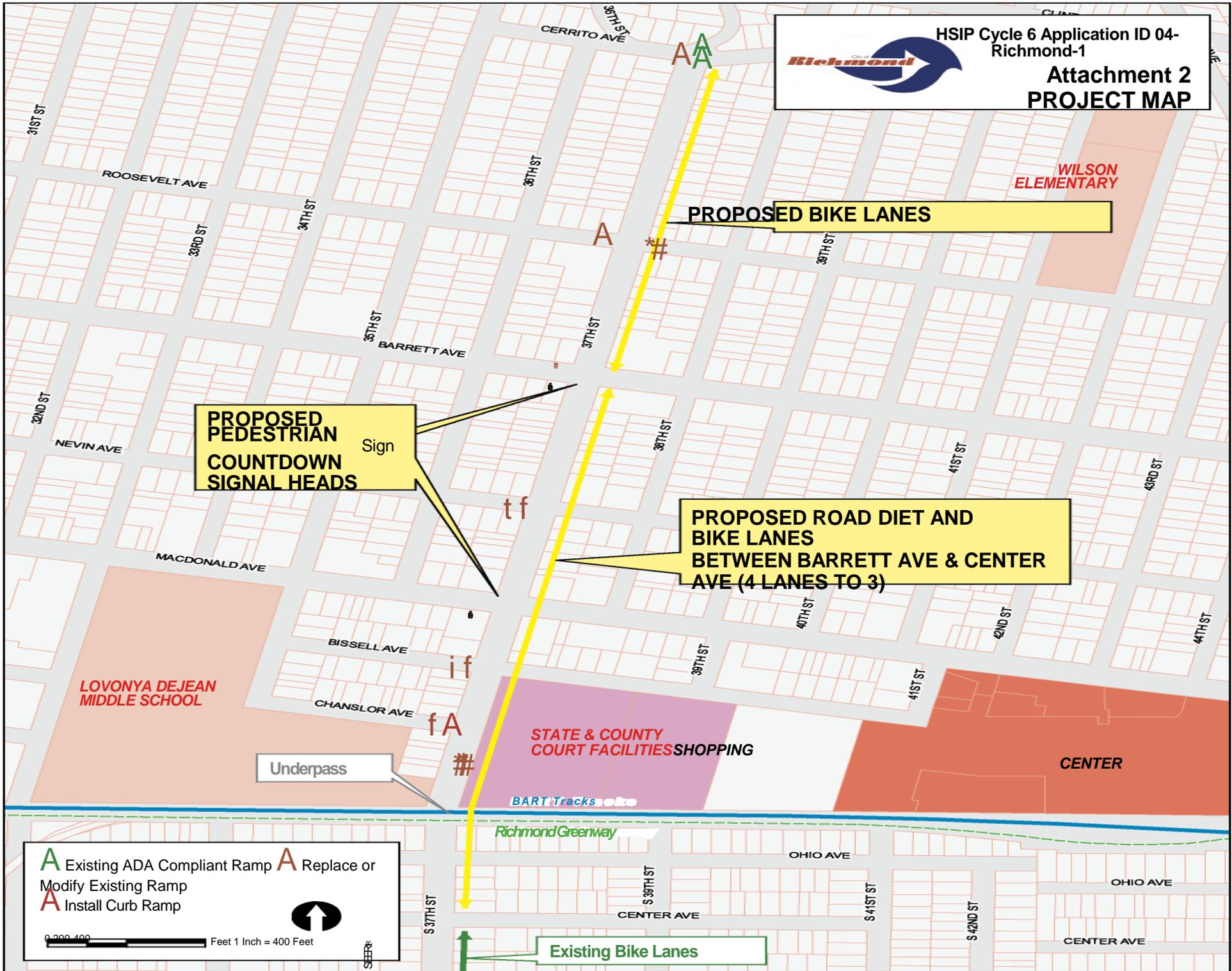
<b>Project Name:</b>	37th Street Improvements	
<b>Project Manager:</b>	Tawfic Halaby	
<b>Department Responsible:</b>	Capital Projects	
<b>Project Description:</b>	This project includes pedestrian and bicycle oriented safety improvements. Improvements included bicycle lanes, upgraded curb ramps, and pedestrian count down at the intersections of 37th Street with Macdonald and Barrett Avenues. This project is partially funded by a Highway Safety Improvement Program Grant using federal funds.	
	Project ID: 29105	
	Project Location: 37th between Center St. and Cerrito Ave.	
	Planning and Design: \$ 50,000	
	Construction: \$ 372,054	
	Equipment: \$ -	
	Contingency/Other: \$ 40,000	
	<b>Total: \$ 462,054</b>	
	Estimated Start Date: 7/1/2016	
	Estimated Completion Date: 6/30/2017	
<b>Justification:</b>	37th Street is designated as a Key Corridor in both the Pedestrian Plan and the Bicycle Master Plan. The BMP also recommends a road diet. 37th Street is especially important as a bike/ped route because it is the only street that traverses the BART tracks between Carlson Blvd and San Pablo Ave. The project will significantly improve bicyclist safety at the underpass under the BART tracks by installing buffered bike lanes. The project connects to existing bike lanes that were built as part of a previous Traffic Safety Study project. ADA-compliant ramps along the route will increase access and mobility for all users, and pedestrian count-down timers at the two major intersections will increase pedestrian safety.	
<b>Total Estimated Cost:</b>	<b>\$462,054</b>	

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
1002	Gas Tax	\$ 102,070	\$ -	\$ -	\$ -	\$ -
1054	Grants	\$ 286,600				
2002	Measure J	\$ 73,384				
Total	\$ 462,054	\$ 462,054	\$ -	\$ -	\$ -	\$ -

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------



HSIP Cycle 6 Application ID 04-Richmond-1  
**Attachment 2**  
**PROJECT MAP**



**A** Existing ADA Compliant Ramp **A** Replace or Modify Existing Ramp  
**A** Install Curb Ramp



0 200 400 Feet 1 Inch = 400 Feet

SEERR

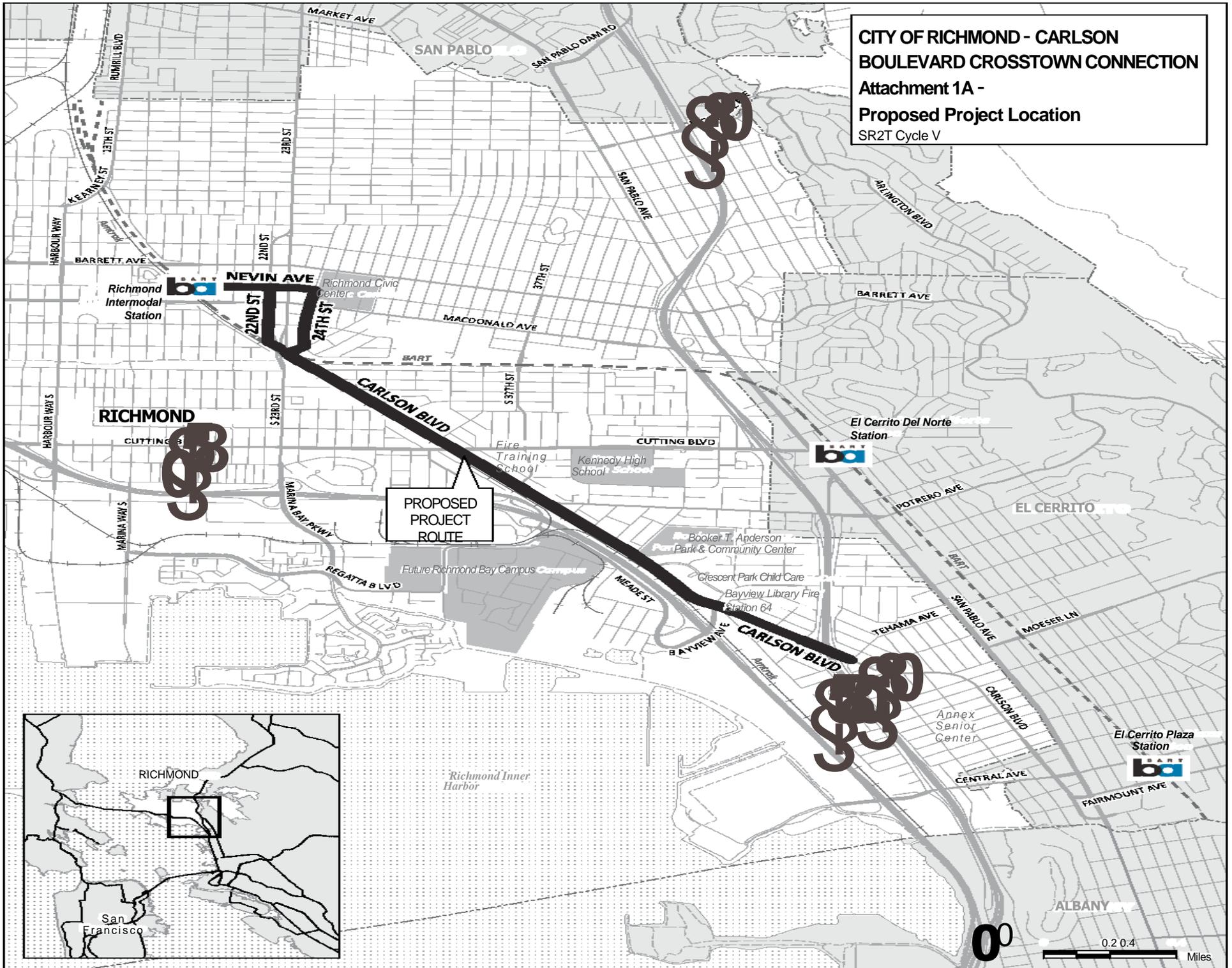
**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Carlson Blvd. Improvements																
<b>Project Manager:</b>	Tawfic Halaby																
<b>Department Responsible:</b>	Capital Projects																
<b>Project Description:</b>	<p>This project includes the design and construction of bicycle lanes along Carlson Boulevard to provide a continuous bikeway from the existing bike lanes on Carlson Boulevard at San Pablo Avenue in El Cerrito north to Broadway, near Richmond Civic Center. This project's conceptual design and environmental review were completed concurrently with the Bicycle Master Plan. The Project is partially funded by a Safe Routes to Transit grant awarded by the Metropolitan Transportation Commission.</p> <p>Project ID: 29104  Project Location: Carlson Blvd. at San Pablo Ave.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Planning and Design:</td> <td style="width: 10%; text-align: center;">\$</td> <td style="width: 30%; text-align: right;">100,000</td> </tr> <tr> <td>Construction:</td> <td style="text-align: center;">\$</td> <td style="text-align: right;">503,371</td> </tr> <tr> <td>Equipment:</td> <td style="text-align: center;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Contingency/Other:</td> <td style="text-align: center;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td><b>Total:</b></td> <td style="text-align: center;"><b>\$</b></td> <td style="text-align: right;"><b>603,371</b></td> </tr> </table> <p>Estimated Start Date: 7/1/2016  Estimated Completion Date: 6/30/2017</p>		Planning and Design:	\$	100,000	Construction:	\$	503,371	Equipment:	\$	-	Contingency/Other:	\$	-	<b>Total:</b>	<b>\$</b>	<b>603,371</b>
Planning and Design:	\$		100,000														
Construction:	\$		503,371														
Equipment:	\$		-														
Contingency/Other:	\$	-															
<b>Total:</b>	<b>\$</b>	<b>603,371</b>															
<b>Justification:</b>	Carlson Boulevard is designated as a Key Corridor in both the Pedestrian Plan and the Bicycle Master Plan (BMP). The BMP also recommends a road diet to improve pedestrian safety.																
<b>Total Estimated Cost:</b>	<b>\$603,371</b>																

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
1054	Engineering Grant	\$ 500,000	\$ -	\$ -	\$ -	\$ -
2002	Measure J	\$ 103,371				
<b>Total</b>	<b>\$ 603,371</b>	<b>\$ 603,371</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------

**CITY OF RICHMOND - CARLSON BOULEVARD CROSSTOWN CONNECTION**  
**Attachment 1A -**  
**Proposed Project Location**  
SR2T Cycle V



**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Cutting Carlson Phase II		
<b>Project Manager:</b>	Andy Yeung		
<b>Department Responsible:</b>	Capital Projects		
<b>Project Description:</b>	<p>This is a phased project intended to improve safety conditions at the Union Pacific Railroad crossing of Cutting Blvd. near Carlson Blvd. Phase I includes pavement resurfacing, concrete median extensions, and a new sidewalk along the north side of Cutting Blvd. Phase II will include the installation of new concrete railroad grade panels, new sidewalk along the south side of Cutting Blvd, pedestrian curb ramps, and detectable warning surface.</p>		
	Project ID:	29109	
	Project Location:	Cutting Blvd. and Carlson Blvd.	
	Estimated Operation and Maintenance Cost:	\$ -	
	Planning and Design:	\$ 38,600	
	Construction:	\$ 346,950	
	Equipment:	\$ -	
	Contingency/Other:	\$ -	
	<b>Total:</b>	<b>\$ 385,550</b>	
	Estimated Start Date:	7/1/2016	
	Estimated Completion Date:	6/30/2017	
<b>Justification:</b>	This project is needed to increase the safety of bicycle and pedestrian traffic at this busy intersection.		
<b>Total Estimated Cost:</b>	<b>\$385,550</b>		

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
1054	Engineering Grant	\$ 260,550	\$ -	\$ -	\$ -	\$ -
2002	Measure J	\$ 125,000				
<b>Total</b>	<b>\$ 385,550</b>	<b>\$ 385,550</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------

# Cutting Carlson Traffic Signal Safety Improvements



**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Fire Station 66 Roof Replacement	
<b>Project Manager:</b>	Yader A Bermudez	
<b>Department Responsible:</b>	Capital Projects	
<b>Project Description:</b>	Replace old leaking roof at Fire Station #61 located at 4100 Clinton Avenue.	
	Project ID: 05D03	
	Project Location: 4100 Clinton Ave.	
	Charges for Services: \$ -	
	Planning and Design: \$ -	
	Construction: \$ 58,574	
	Equipment: \$ -	
	Contingency/Other: \$ -	
	<b>Total: \$ 58,574</b>	
	Estimated Start Date: 7/1/2016	
	Estimated Completion Date: 6/30/2017	
<b>Justification:</b>	The existing old roof at RFD Station 66 is badly leaking which is creating considerable roof and wall damage at the facility.	
<b>Total Estimated Cost:</b>	<b>\$58,574</b>	

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
2001	General Capital	\$ 58,574	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 58,574</b>	<b>\$ 58,574</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------



 Property Lines  
 City Limits

(1)



## FIRE STATION 66 4100 Clinton Ave

### Project Location Map

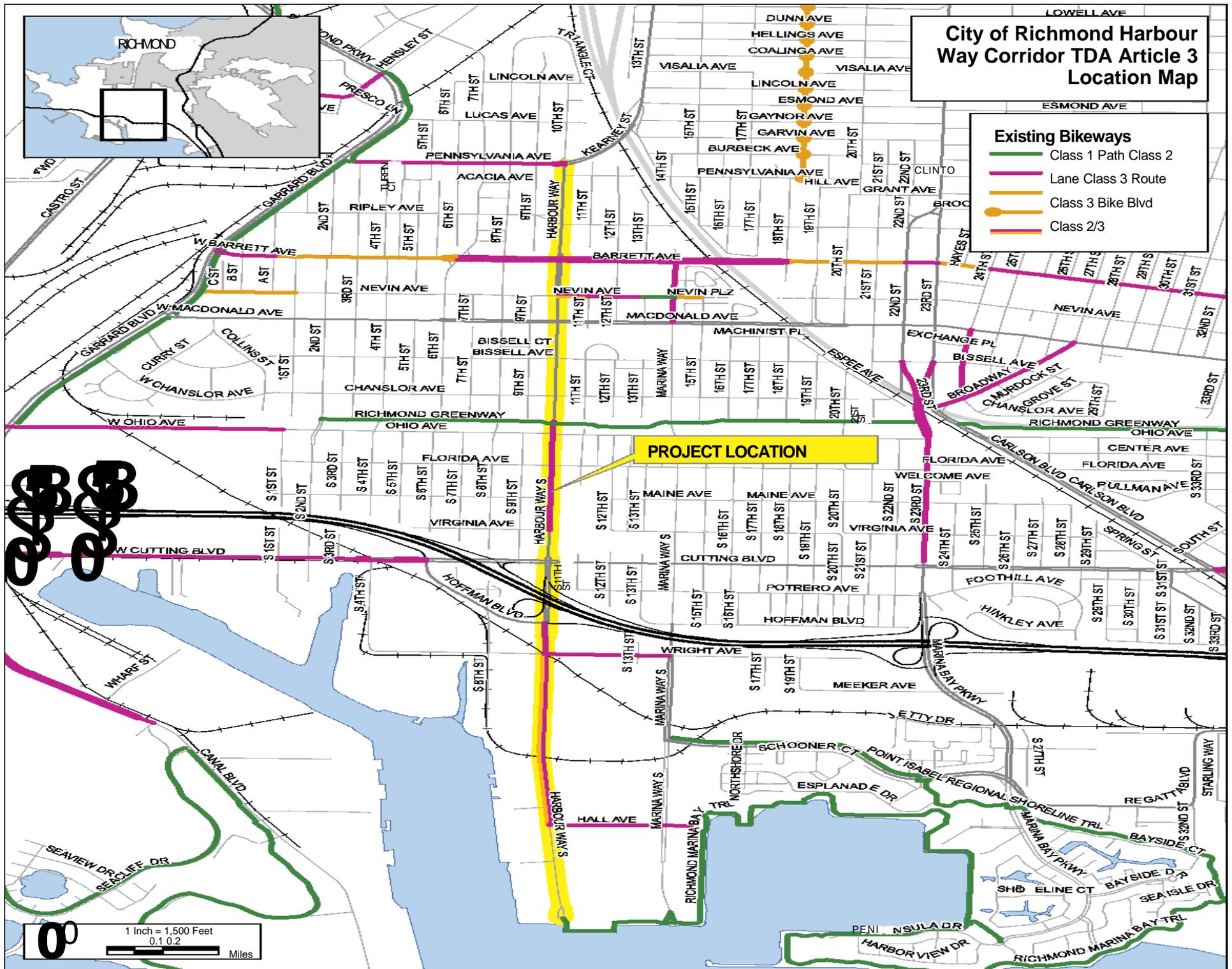


**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Harbour Way Improvements																
<b>Project Manager:</b>	Michael Williams																
<b>Department Responsible:</b>	Capital Projects																
<b>Project Description:</b>	<p>This project entails the design and construction of a variety of pedestrian and bicycle improvements along Harbour Way from its southerly terminus at the proposed Richmond Ferry Terminal north to Pennsylvania Avenue. The project will implement improvements proposed in several City planning documents, including the South Shoreline Connectivity Plan, Bicycle Master Plan, and the Pedestrian Plan and its Yellow Brick Road appendix. The Project is partially funded by a Transportation Development Act grant</p> <p>Project ID: 29103</p> <p>Project Location: Harbour Way Blvd. (North and South)</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Planning and Design:</td> <td style="width: 10%; text-align: right;">\$</td> <td style="width: 30%; text-align: right;">388,060</td> </tr> <tr> <td>Construction:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Equipment:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Contingency/Other:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td><b>Total:</b></td> <td style="text-align: right;"><b>\$</b></td> <td style="text-align: right;"><b>388,060</b></td> </tr> </table> <p>Estimated Start Date: 7/1/2016            Estimated Completion Date: 6/30/2017</p>		Planning and Design:	\$	388,060	Construction:	\$	-	Equipment:	\$	-	Contingency/Other:	\$	-	<b>Total:</b>	<b>\$</b>	<b>388,060</b>
Planning and Design:	\$		388,060														
Construction:	\$		-														
Equipment:	\$		-														
Contingency/Other:	\$	-															
<b>Total:</b>	<b>\$</b>	<b>388,060</b>															
<b>Justification:</b>	Harbour Way is in both the Pedestrian Plan and the Bicycle Master Plan. It is especially important as a bike/ped route because it is the only street that traverses the City in a north-south direction connecting San Pablo and North Richmond to the planned ferry service at the terminus of Harbour Way.																
<b>Total Estimated Cost:</b>	<b>\$388,060</b>																

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
1054	Engineering Grant	\$ 100,000	\$ -	\$ -	\$ -	\$ -
2002	Measure J	\$ 288,060				
<b>Total</b>	<b>\$ 388,060</b>	<b>\$ 388,060</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------



**City of Richmond Harbour Way Corridor TDA Article 3 Location Map**

- Existing Bikeways**
- Class 1 Path Class 2
  - Lane Class 3 Route
  - Class 3 Bike Blvd
  - Class 2/3

**PROJECT LOCATION**

1 Inch = 1,500 Feet  
0.1 0.2 Miles

**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	I-80 Central Interchange Phase I	
<b>Project Manager:</b>	Tawfic Halaby	
<b>Department Responsible:</b>	Capital Projects	
<b>Project Description:</b>	<p>This project is the first in a two phase effort to improve traffic congestion at the I-580/I-80/Central Avenue area. Phase I includes signalization of intersections currently configured as all-way stops and the installation of variable message signs (VMS). The VMS will be configured to prohibit left turns onto westbound I-80 from Central during weekend peak periods, redirecting this traffic to eastbound I-580. This project is wholly funded by grants, including a Federal earmark and Measure J.</p> <p>Project ID: 29110  Project Location: I-580/I-80 Central Ave.  Estimated Operation and Maintenance Cost: \$ -  Planning and Design: \$ 2,773,600  Construction: \$ -  Equipment: \$ 196,400  Contingency/Other: \$ -  <b>Total: \$ 2,970,000</b></p> <p>Estimated Start Date: 7/1/2016  Estimated Completion Date: 6/30/2017</p>	
<b>Justification:</b>	Central Avenue is a designated Route of Regional Significance in Contra Costa County. The four closely spaced signalized intersections along Central Avenue between Jacuzzi Street and Pierce Street lack sufficient storage capacity, resulting in poor intersection operations and heavy congestion during peak travel times, especially on weekends.	
<b>Total Estimated Cost:</b>	<b>\$2,970,000</b>	

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
2002	Measure J	\$ 2,970,000	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 2,970,000</b>	<b>\$ 2,970,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------

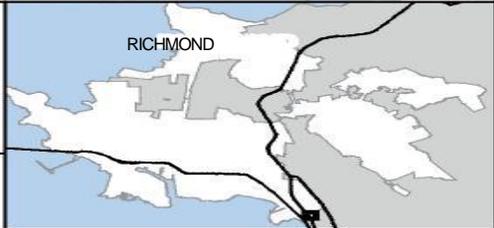


 Property Lines  
 City Limits



## I-80 CENTRAL INTERCHANGE

### Project Location Map



**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Martin Luther King Jr. Community Center	
<b>Project Manager:</b>	Tawfic Halaby	
<b>Department Responsible:</b>	Capital Projects	
<b>Project Description:</b>	<p>This project will design and construct a new community center to replace the Martin Luther King (MLK) Jr. Community Center that was damaged by flooding, and demolished in 2010. The new MLK Center will be designed through a community process and made an integral part of the Nystrom Village Revitalization project. Final design and construction cost are currently unfunded.</p> <p>Project ID: 01015            Project Location: 360 Harbour Way S.            Charges for Services: \$ -            Planning and Design: \$ 267,692            Construction:            Equipment:            Contingency/Other:  <b>Total: \$ 267,692</b></p>	
	Estimated Start Date: 7/1/2015	
	Estimated Completion Date: 6/30/2017	
<b>Justification:</b>	Design and construct a new (replacement) MLK Community Center.	
<b>Total Estimated Cost:</b>	<b>\$267,692</b>	

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
2001	General Capital	\$ 267,692	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 267,692</b>	<b>\$ 267,692</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------

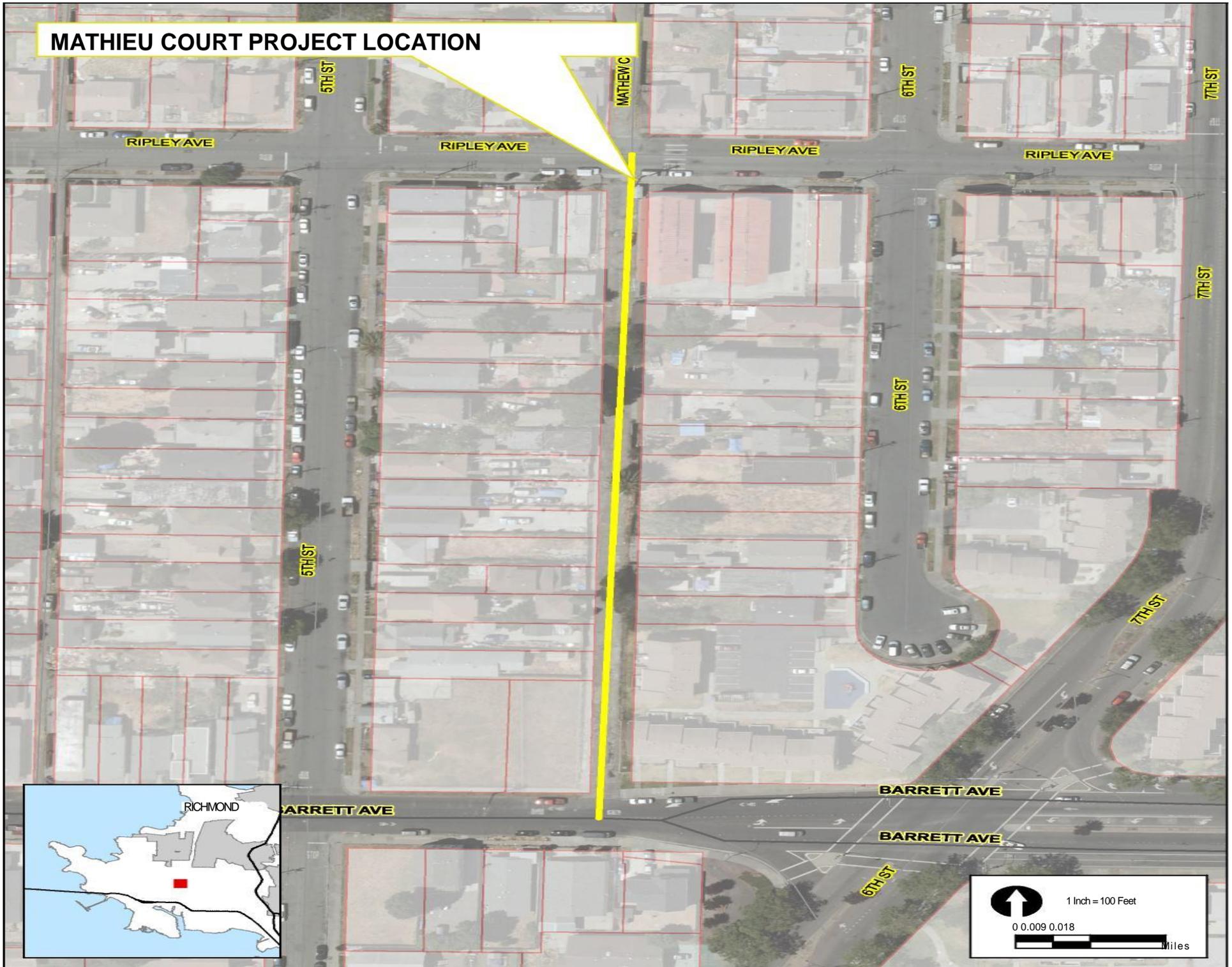
**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Mathieu Court Alley Greening/Emerald Alleys Program	
<b>Project Manager:</b>	Michael Williams	
<b>Department Responsible:</b>	Capital Projects	
<b>Project Description:</b>	Additional landscaping, stormwater improvements, rehabilitate pavement in residential alleyways; including Mathieu and Turpin Courts.	
	Project ID: 01114	
	Project Location: Between Ripley Ave. & Barrett Ave.	
	Charges for Services: \$ 19,300	
	Planning and Design: \$ -	
	Construction: \$ -	
	Equipment: \$ -	
	Contingency/Other: \$ -	
	<b>Total: \$ 19,300</b>	
	Estimated Start Date: 7/1/2016	
	Estimated Completion Date: 6/30/2017	
<b>Justification:</b>	This is a pilot project for the City's effort to convert alleys into green spaces that are a useable neighborhood amenity, and help deter undesirable activities that occur there such as, dumping and crime.	
<b>Total Estimated Cost:</b>	<b>\$19,300</b>	

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
1002	Gas Tax	\$ 19,300	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 19,300</b>	<b>\$ 19,300</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ 15,000</b>
--	------------------

# MATHIEU COURT PROJECT LOCATION



**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Railroad Crossing Improvements Quiet Zone																
<b>Project Manager:</b>	Michael Williams																
<b>Department Responsible:</b>	Capital Projects																
<b>Project Description:</b>	<p>This project involves the analysis of noise and safety concerns at existing railroad grade crossings. Information from this analysis will be used to design and construct safety improvements at grade crossings, and these improvements can also qualify the grade crossings as quiet zones. This project also includes periodic monitoring of existing quiet zones, in compliance with applicable regulations.</p> <p>Project ID: 01A12  Project Location: City-wide</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Planning and Design:</td> <td style="width: 10%; text-align: center;">\$</td> <td style="width: 30%; text-align: right;">14,575</td> </tr> <tr> <td>Construction:</td> <td style="text-align: center;">\$</td> <td style="text-align: right;">55,581</td> </tr> <tr> <td>Equipment:</td> <td style="text-align: center;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Contingency/Other:</td> <td style="text-align: center;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td><b>Total:</b></td> <td style="text-align: center;"><b>\$</b></td> <td style="text-align: right;"><b>70,156</b></td> </tr> </table> <p>Estimated Start Date: 7/1/2016  Estimated Completion Date: 6/30/2017</p>		Planning and Design:	\$	14,575	Construction:	\$	55,581	Equipment:	\$	-	Contingency/Other:	\$	-	<b>Total:</b>	<b>\$</b>	<b>70,156</b>
Planning and Design:	\$	14,575															
Construction:	\$	55,581															
Equipment:	\$	-															
Contingency/Other:	\$	-															
<b>Total:</b>	<b>\$</b>	<b>70,156</b>															
<b>Justification:</b>	This project is intended to address noise pollution issues and to increase health and wellness by improving the ambient noise levels associated the railroad industry.																
<b>Total Estimated Cost:</b>	<b>\$70,156</b>																



SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
2001	General Capital	\$ 70,156	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 70,156</b>	<b>\$ 70,156</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------

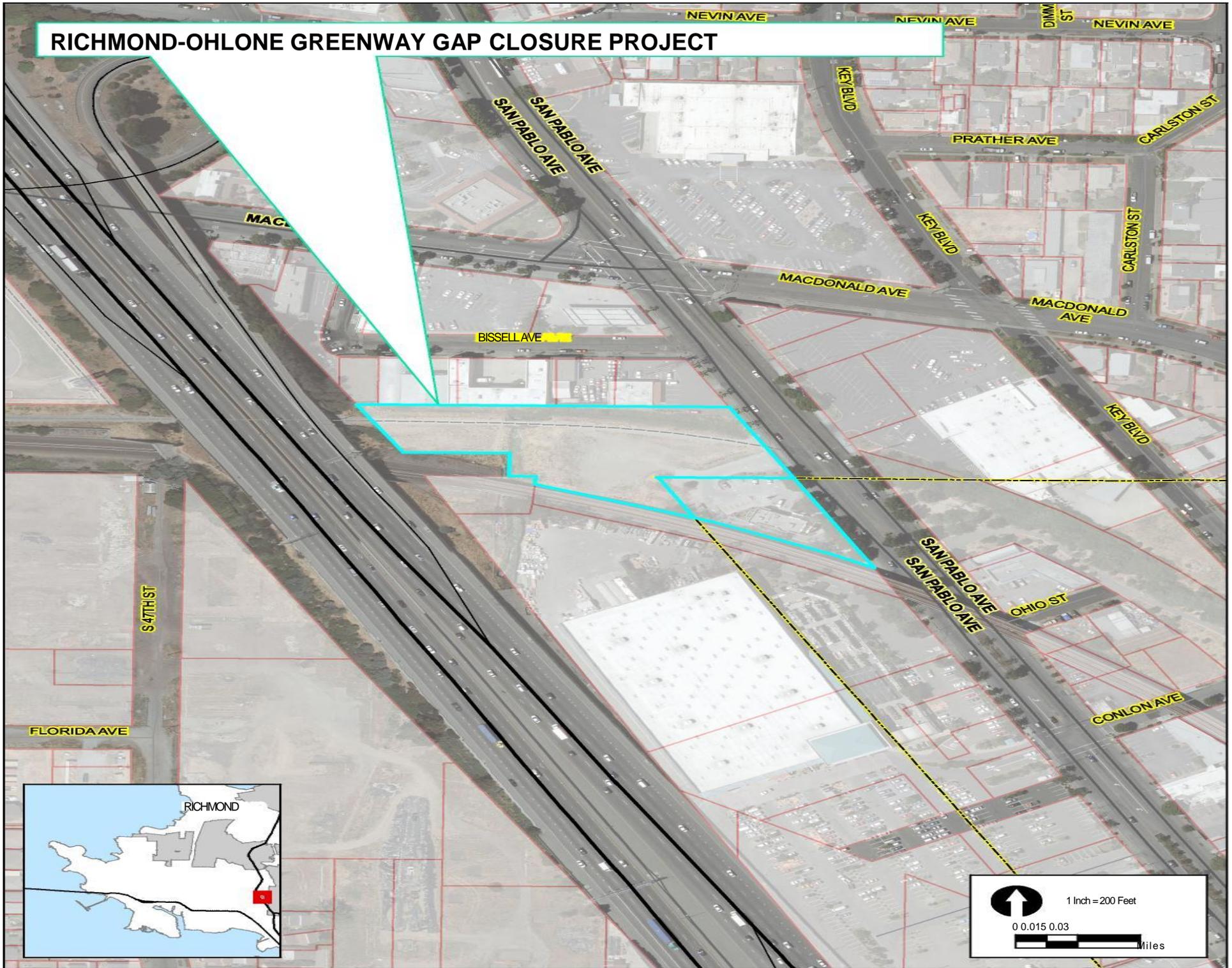
**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Richmond Greenway Ohlone Gap - Safe Route to Transit I	
<b>Project Manager:</b>	Tawfic Halaby	
<b>Department Responsible:</b>	Capital Projects	
<b>Project Description:</b>	Design and construct a multi-use trail connecting the Richmond Greenway to the Ohlone Greenway. Restore and realign Baxter Creek in the vicinity of the project to connect to the proposed day lighted creek at the Miraflores Greenbelt Project. Provide a signalized, pedestrian actuated crossing of San Pablo Avenue. This project is partially funded by a grant of Regional Measure 2 funds awarded by MTC under the Safe Routes to Transit Program and a Proposition 84 Urban Greening grant by the Strategic Growth Council.	
	Project ID: 21G14	
	Project Location: Richmond Greenway & Ohlone Greenway	
	Charges for Services: \$ -	
	Planning and Design: \$ 56,050	
	Construction: \$ 1,344,200	
	Equipment: \$ 200,688	
	Contingency/Other: \$ -	
	<b>Total: \$ 1,600,938</b>	
	Estimated Start Date: 5/1/2010	
	Estimated Completion Date: 6/30/2017	
<b>Justification:</b>	The project is needed to close the gap between the Richmond and Ohlone greenways and provide the Richmond residents a safe crossing across San Pablo Avenue. The Greenways facilitate off-street trail access to El Cerrito Plaza, Del Norte, and Richmond BART stations.	
<b>Total Estimated Cost:</b>	<b>\$1,600,938</b>	

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
1054	Grant	\$ 1,057,338	\$ -	\$ -	\$ -	\$ -
2001	General Capital	\$ 30,000				
2002	Measure J	\$ 513,600				
<b>Total</b>	<b>\$ 1,600,938</b>	<b>\$ 1,600,938</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ 50,000</b>
--	------------------

# RICHMOND-OHLONE GREENWAY GAP CLOSURE PROJECT



**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Richmond Parkway Interconnect Traffic System	
<b>Project Manager:</b>	Yader A Bermudez	
<b>Department Responsible:</b>	Capital Projects	
<b>Project Description:</b>	<p>This project includes the rehabilitation of the existing traffic signal interconnect systems and installation of video monitoring systems at all Richmond Parkway interceptions.</p> <p>Project ID:</p> <p>Project Location: Richmond Parkway</p> <p>Charges for Services: \$ -</p> <p>Planning and Design: \$ -</p> <p>Construction: \$ 500,000</p> <p>Equipment: \$ -</p> <p>Contingency/Other: \$ -</p> <p><b>Total: \$ 500,000</b></p> <p>Estimated Start Date: 7/1/2016</p> <p>Estimated Completion Date: 6/30/2017</p>	
<b>Justification:</b>	This project will minimize traffic congestions along the Richmond Parkway by making traffic run more smoothly.	
<b>Total Estimated Cost:</b>	<b>\$500,000</b>	



SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
2002	Measure J	\$ 500,000	\$ -	\$ -	\$ -	\$ -
<b>Total</b>		<b>\$ 500,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------



— Richmond Parkway City  
- - - Limits

(II) 0 1 inch = 2,000 Feet

# RICHMOND PARKWAY

## Project Location Map

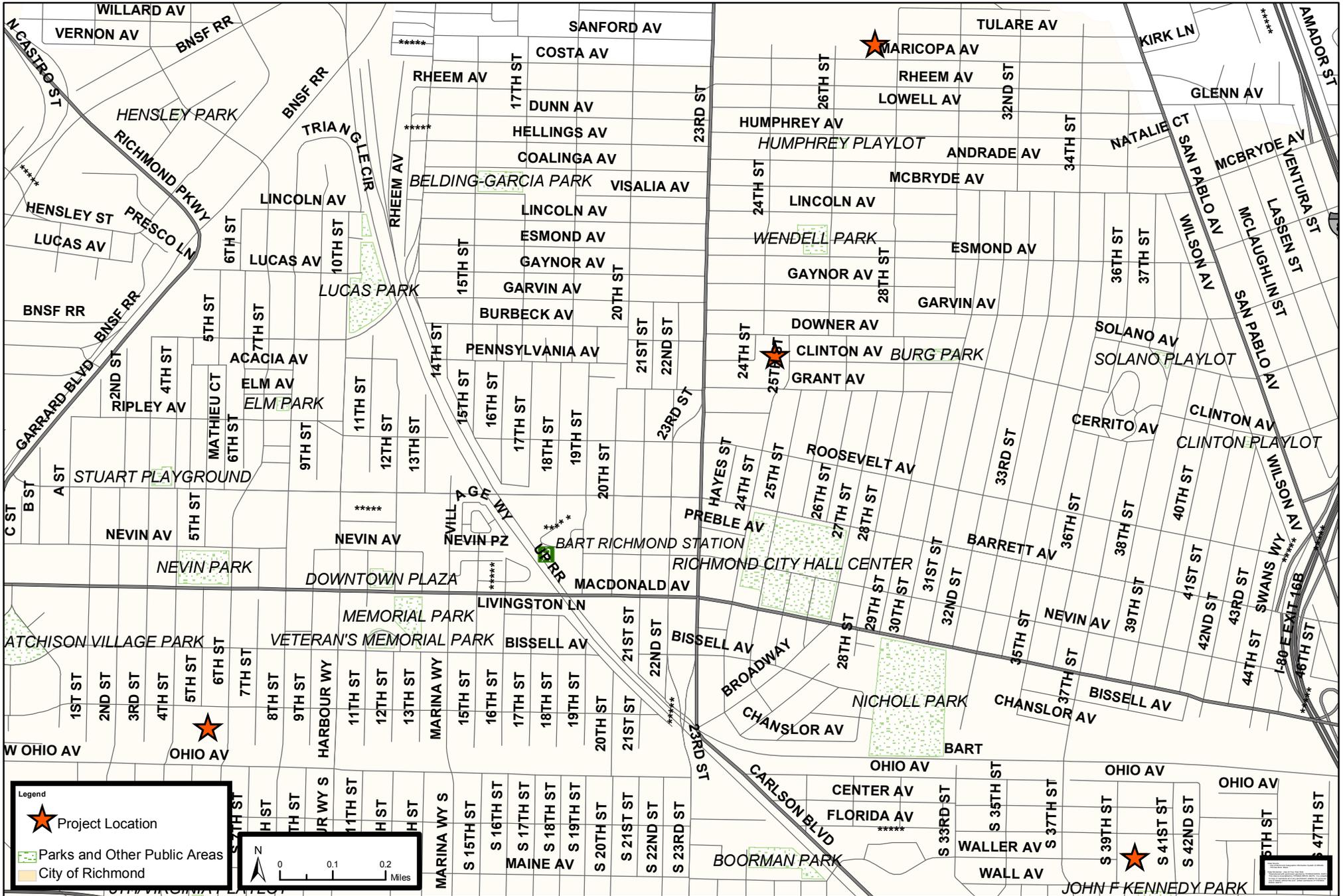


**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Safe Route to School Cycle 1	
<b>Project Manager:</b>	Tawfic Halaby	
<b>Department Responsible:</b>	Capital Projects	
<b>Project Description:</b>	Upgrade crosswalks and pavement, install medians, ADA ramps and crosswalk warning lights on select streets around Ford, Grant, King, and Lincoln elementary schools. This project is partially funded by a federal grant under the Safe Route to Schools program administered by Caltrans.	
	Project ID: 21A02	
	Project Location: Various locations	
	Charges for Services: \$ -	
	Planning and Design: \$ -	
	Construction: \$ 40,000	
	Equipment: \$ -	
	Contingency/Other: \$ -	
	<b>Total: \$ 40,000</b>	
	Estimated Start Date: 8/1/2015	
	Estimated Completion Date: 6/30/2017	
<b>Justification:</b>	This project is intended to address safety and accessibility deficiencies around elementary schools. Specifically, the project will make walking and biking to school safer for the students who attend Ford, Grant, King, and Lincoln elementary schools and remove the barriers to access for the pedestrians and the disabled who travel to and from the school.	
<b>Total Estimated Cost:</b>	<b>\$40,000</b>	

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
2002	Measure J	\$ 40,000	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 40,000</b>	<b>\$ 40,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------

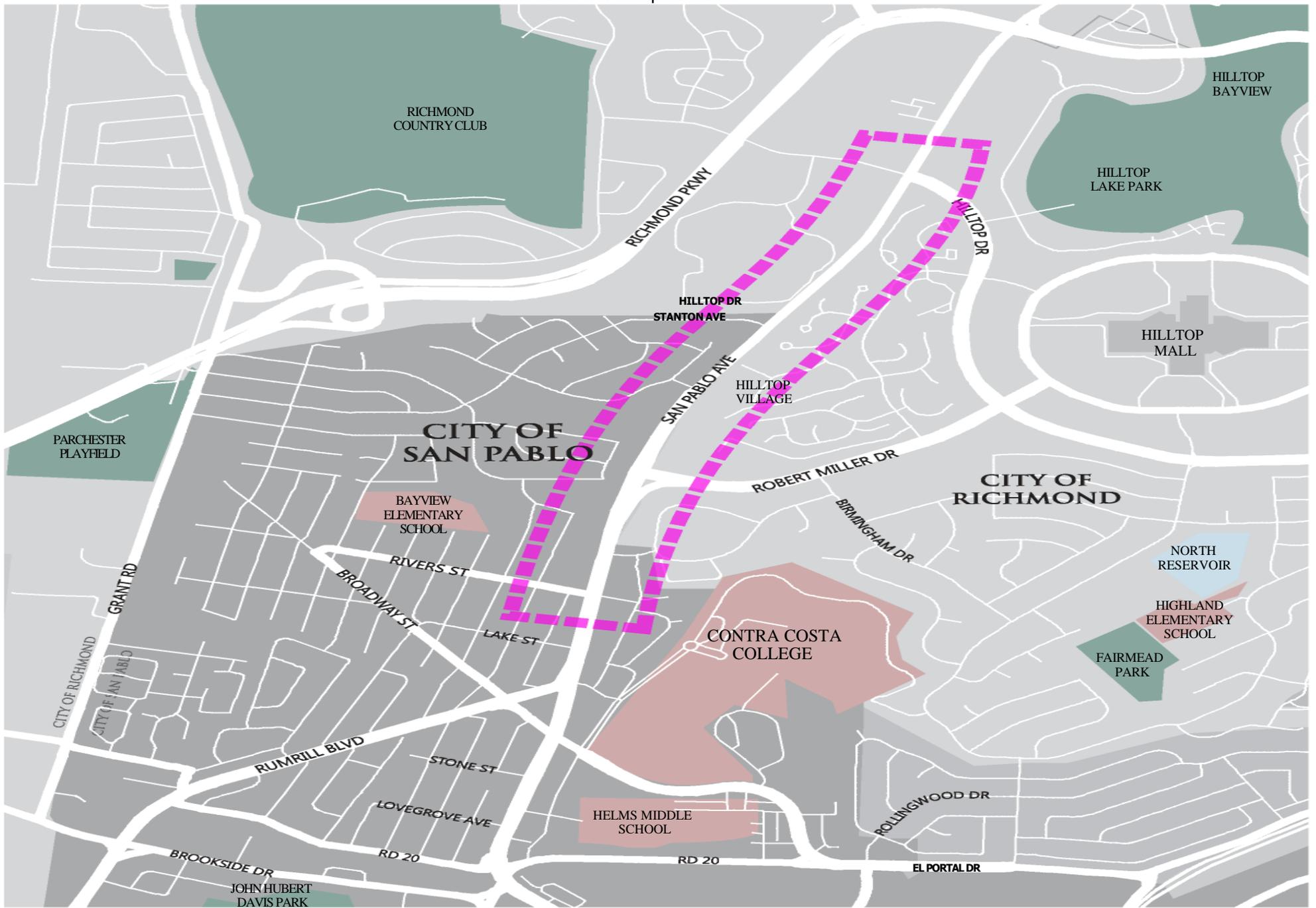


**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	San Pablo Avenue Complete Street																				
<b>Project Manager:</b>	Tawfic Halaby																				
<b>Department Responsible:</b>	Capital Projects																				
<b>Project Description:</b>	<p>In partnership with City of San Pablo; design and construct sidewalks, bicycle lanes, lighting improvements and signal modifications along San Pablo Avenue between Rivers Ave. (in San Pablo) and Hilltop Dr. (in Richmond). This project is partially funded by a Federal grant awarded to the City of San Pablo.</p> <p>Project ID: 29102  Project Location: San Pablo Ave. between Rivers Ave. &amp; Hilltop Dr.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>Charges for Services:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Planning and Design:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Construction:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">351,220</td> </tr> <tr> <td>Equipment:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Contingency/Other:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td><b>Total:</b></td> <td style="text-align: right;"><b>\$</b></td> <td style="text-align: right;"><b>351,220</b></td> </tr> </table> <p>Estimated Start Date: 3/1/2015  Estimated Completion Date: 12/31/2016</p>			Charges for Services:	\$	-	Planning and Design:	\$	-	Construction:	\$	351,220	Equipment:	\$	-	Contingency/Other:	\$	-	<b>Total:</b>	<b>\$</b>	<b>351,220</b>
Charges for Services:	\$	-																			
Planning and Design:	\$	-																			
Construction:	\$	351,220																			
Equipment:	\$	-																			
Contingency/Other:	\$	-																			
<b>Total:</b>	<b>\$</b>	<b>351,220</b>																			
<b>Justification:</b>	The segment of the project lacks sidewalk and bicycle lanes, but also serves as a connector for several residential and commercial areas. The current design is unsafe and uncomfortable for pedestrians and cyclists.																				
<b>Total Estimated Cost:</b>	<b>\$351,220</b>																				

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
2002	Measure J	\$ 351,220		\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 351,220</b>	<b>\$ 351,220</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------



Not to Scale

**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	SF Bay Trail - Goodrick Avenue																			
<b>Project Manager:</b>	Michael Williams																			
<b>Department Responsible:</b>	Capital Projects																			
<b>Project Description:</b>	<p>This project includes design and construction of a segment of San Francisco Bay Trail along Goodrick Avenue, between the intersection of Goodrick Avenue and Richmond Parkway and the northerly terminus of Goodrick Avenue, to connect to a recently completed segment of Bay Trail in Point Pinole Regional Shoreline Park. This project is partially funded by an Association of Bay Area Governments (ABAG) grant of Bay Trail Planning funds. The construction phase of this Project is currently unfunded.</p> <p>Project ID: 29101  Project Location: Goodrick Ave. and Richmond Parkway</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>Charges for Services:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Planning and Design:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">48,250</td> </tr> <tr> <td>Construction:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Equipment:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Contingency/Other:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td><b>Total:</b></td> <td style="text-align: right;"><b>\$</b></td> <td style="text-align: right;"><b>48,250</b></td> </tr> </table> <p>Estimated Start Date: 4/1/2015  Estimated Completion Date: 9/30/2016</p>		Charges for Services:	\$	-	Planning and Design:	\$	48,250	Construction:	\$	-	Equipment:	\$	-	Contingency/Other:	\$	-	<b>Total:</b>	<b>\$</b>	<b>48,250</b>
Charges for Services:	\$		-																	
Planning and Design:	\$		48,250																	
Construction:	\$		-																	
Equipment:	\$	-																		
Contingency/Other:	\$	-																		
<b>Total:</b>	<b>\$</b>	<b>48,250</b>																		
<b>Justification:</b>	This project is intended to address safety and accessibility deficiencies to regional recreation areas. Specifically, the project will make pedestrian and biking access to Pt. Pinole's Regional Shoreline Park to safer for the many area residents and visitors that regularly enjoy that park.																			
<b>Total Estimated Cost:</b>	<b>\$48,250</b>																			

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
2002	Measure J	\$ 48,250	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 48,250</b>	<b>\$ 48,250</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ 2,500</b>
--	-----------------

# Northern Shoreline



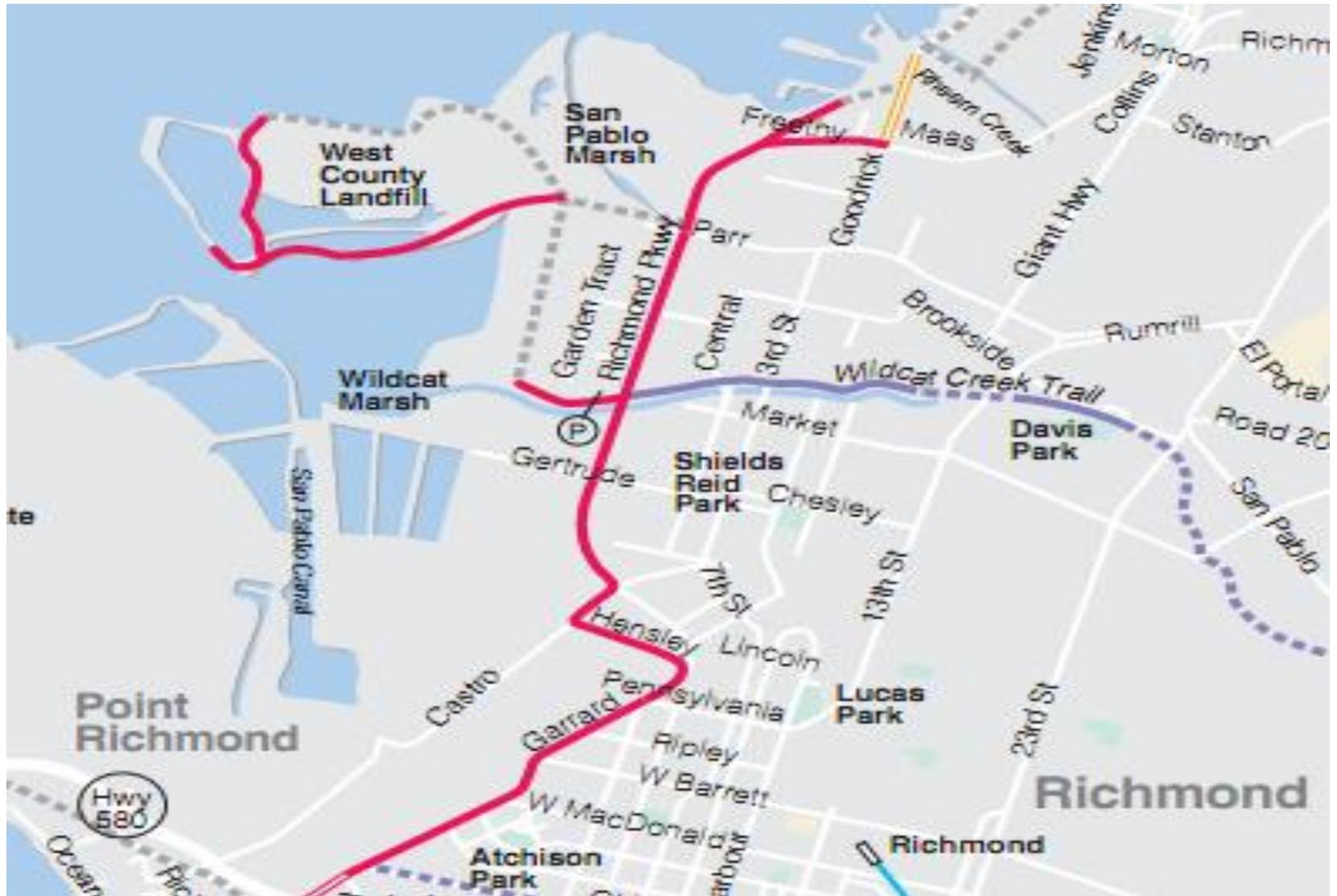
**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	SF Bay Trail - (Pt. Richmond to Pt. Molate)															
<b>Project Manager:</b>	Yader A Bermudez															
<b>Department Responsible:</b>	Capital Projects															
<b>Project Description:</b>	This project includes the preparation of a Project Study Report (PSR) to determine a feasible alternative to provide SF Bay Trail connection between Pt. Richmond and Pt. Molate. A PSR is required due to the project's implications for Caltrans right-of-way along I-580.															
	Project ID: 01J14 & 01A14															
	Project Location: Pt. Richmond to Pt. Molate															
	Charges for Services:															
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Planning and Design:</td> <td style="width: 10%; text-align: right;">\$</td> <td style="width: 30%; text-align: right;">97,464</td> </tr> <tr> <td>Construction:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">1,000,000</td> </tr> <tr> <td>Equipment:</td> <td></td> <td></td> </tr> <tr> <td>Contingency/Other:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">164,373</td> </tr> <tr> <td><b>Total:</b></td> <td style="text-align: right;"><b>\$</b></td> <td style="text-align: right;"><b>1,261,837</b></td> </tr> </table>		Planning and Design:	\$	97,464	Construction:	\$	1,000,000	Equipment:			Contingency/Other:	\$	164,373	<b>Total:</b>	<b>\$</b>
Planning and Design:	\$	97,464														
Construction:	\$	1,000,000														
Equipment:																
Contingency/Other:	\$	164,373														
<b>Total:</b>	<b>\$</b>	<b>1,261,837</b>														
	Estimated Start Date:	7/1/2016														
	Estimated Completion Date:	6/30/2017														
<b>Justification:</b>	Pedestrian and bicycle safety.															
<b>Total Estimated Cost:</b>	<b>\$1,261,837</b>															

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
1054	Grants	\$ 81,200	\$ -	\$ -	\$ -	\$ -
2001	General Capital	\$ 1,180,637				
<b>Total</b>		<b>\$ 1,261,837</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ 2,500</b>
--	-----------------

SF Bay Trail Pt. Richmond to Pt. Molate

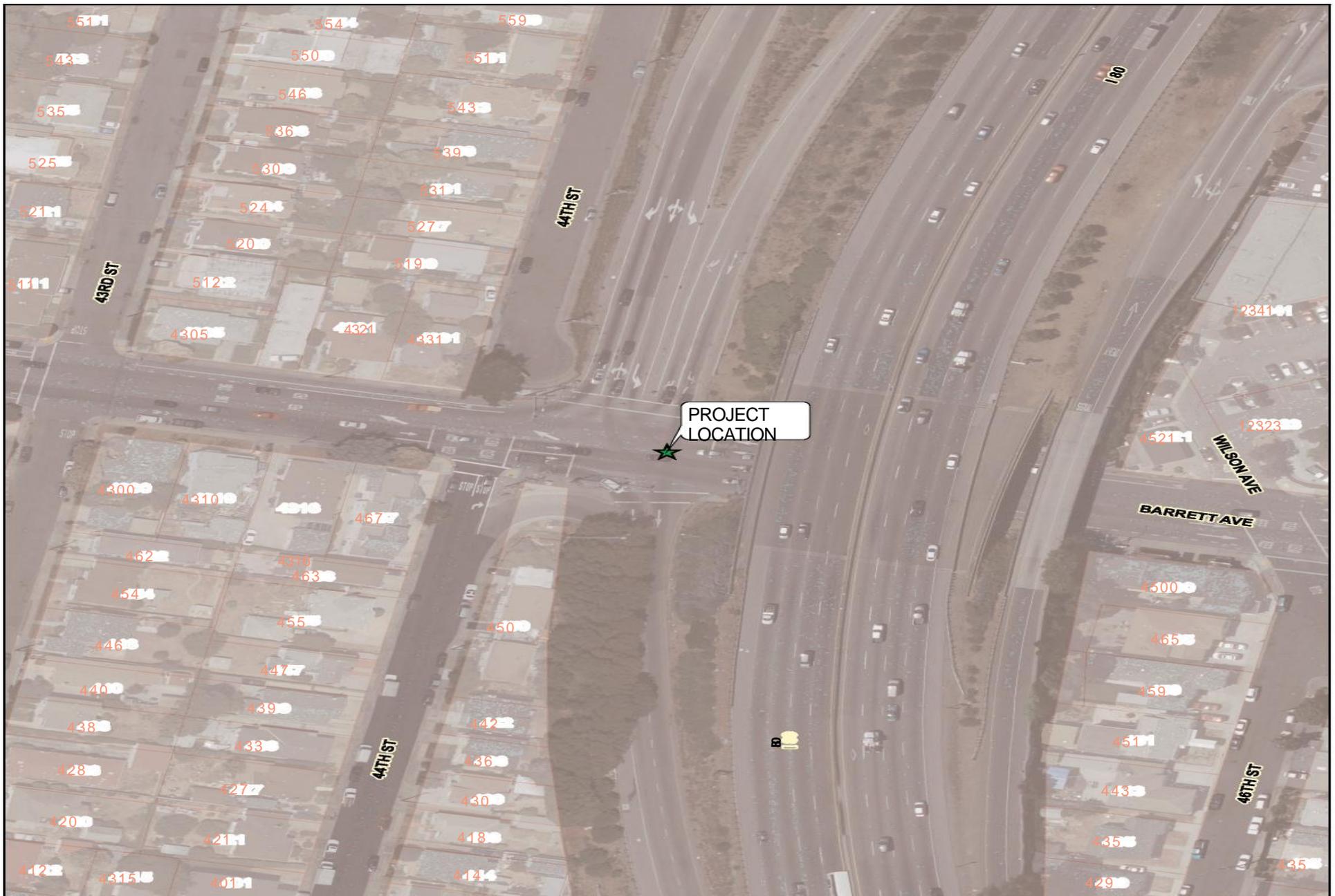


**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Signal Modification at Barrett I-80 Ramps	
<b>Project Manager:</b>	Yader A Bermudez	
<b>Department Responsible:</b>	Capital Projects	
<b>Project Description:</b>	Modify existing traffic signal to provide protected left turns on Westbound Barrett Avenue to Southbound I-80.	
	Project ID: 29112	
	Project Location: \$ -	
	Charges for Services: \$ -	
	Planning and Design: \$ -	
	Construction: \$ 95,000	
	Equipment: \$ -	
	Contingency/Other: \$ -	
	<b>Total: \$ 95,000</b>	
	Estimated Start Date: 7/1/2016	
	Estimated Completion Date: 6/30/2017	
<b>Justification:</b>	Current left turn is not protected from opposite traffic.	
<b>Total Estimated Cost:</b>	<b>\$95,000</b>	

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
2002	Measure J	\$ 95,000	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 95,000</b>	<b>\$ 95,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$</b>	<b>2,500</b>
--	-----------	--------------



PROJECT LOCATION

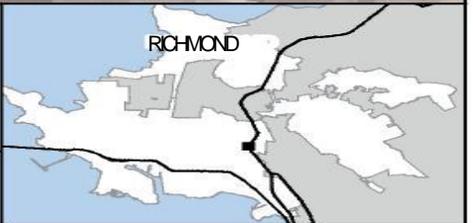

  
 Property Lines
   
 City Limits

(II) 11/15/2014



## SIGNAL MODIFICATIONS at Barrett Ave & I-80 WB On-Ramp

### Project Location Map



**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Street Paving															
<b>Project Manager:</b>	Yader Bermudez															
<b>Department Responsible:</b>	Capital Projects															
<b>Project Description:</b>	Street paving by the Public Works staff is to assist Engineering's paving program. Areas included are: Annex, Clinton Hill, East Richmond, Fairmede, Hilltop Green, Iron Triangle, May Valley, Park View, Pullman, Santa Fe, South Annex, and South Belding Woods. This will cover approximately 1,500,000 square feet using 20,000 tons of supplies.															
	Project ID: 01A05															
	Project Location: City-wide															
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Planning and Design:</td> <td style="width: 10%; text-align: right;">\$</td> <td style="width: 30%; text-align: right;">-</td> </tr> <tr> <td>Construction:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">12,500,000</td> </tr> <tr> <td>Equipment:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Contingency/Other:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td><b>Total:</b></td> <td style="text-align: right;"><b>\$</b></td> <td style="text-align: right;"><b>12,500,000</b></td> </tr> </table>		Planning and Design:	\$	-	Construction:	\$	12,500,000	Equipment:	\$	-	Contingency/Other:	\$	-	<b>Total:</b>	<b>\$</b>
Planning and Design:	\$	-														
Construction:	\$	12,500,000														
Equipment:	\$	-														
Contingency/Other:	\$	-														
<b>Total:</b>	<b>\$</b>	<b>12,500,000</b>														
	Estimated Start Date:	7/1/2016														
	Estimated Completion Date:	6/30/2021														
<b>Justification:</b>	This project is needed to repair deteriorated infrastructure assets and as preventive maintenance. It will improve the roadway PCI and reduce routine maintenance.															
<b>Total Estimated Cost:</b>	<b>\$12,500,000</b>															

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
1002	Gas Tax	\$ 2,384,762	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000
2002	Measure J	\$ 115,238				
<b>Total</b>	<b>\$ 12,500,000</b>	<b>\$ 2,500,000</b>				

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------

**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Traffic Safety Improvements	
<b>Project Manager:</b>	Steven Tam	
<b>Department Responsible:</b>	Capital Projects	
<b>Project Description:</b>	Analyze traffic concerns, maintain and repair traffic loops, upgrade traffic signal equipment, and install new traffic safety devices.	
	Project ID: 01B02	
	Project Location: City-wide	
	Engineering Cost Charges for Services: \$ -	
	Planning and Design: \$ -	
	Construction: \$ 63,000	
	Equipment: \$ -	
	Contingency/Other: \$ -	
	<b>Total: \$ 63,000</b>	
	Estimated Start Date: 7/1/2015	
	Estimated Completion Date: 6/30/2017	
<b>Justification:</b>	This project ensures that the traffic flow and traffic safety within the City is maintained at all times.	
<b>Total Estimated Cost:</b>	<b>\$63,000</b>	

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
1002	Gas Tax	\$ 63,000				
<b>Total</b>	<b>\$ 63,000</b>	<b>\$ 63,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$</b>	<b>-</b>
--	-----------	----------

# Capital Improvement Department-23

## Parks Division



Hilltop Area



Virginia Play Lot  
Coronado Neighborhood



Marina Bay Esplanade

**Mission:** *The City of Richmond, Parks and Landscaping Division, is dedicated to enhancing the quality of life through safe and attractive parks, facilities, public landscapes and natural open spaces.*

### Overview

The Parks and Landscaping Division represent the core support services to enable outdoor recreational enjoyment for all park participants. Park amenities include play lots, numerous ball fields, tennis courts, basketball courts, open lawn areas, picnic grounds, greenways, pathways, trails and related facilities. These basic areas, as well as the urban forest and adjoining public landscapes, are kept attractive and safe for public use year round. Many areas are part of an aging infrastructure needing upgrades. The Parks and Landscaping Division is responsible for planning and reviewing Parks construction and development projects. The Division also supports the Recreation and Parks Commission, Urban Forest Committee, and various community groups.

The Parks' Capital Improvement Plan (CIP) vision is to plan for acquisition, development, and maintenance of parks, trails, and open space. Projections for new pending revenue sources like the WW Bond Measure are anticipated strategically. To support this vision, the following criteria were taken into account to establish project priorities:

- Complete current projects
- Fund projects to upgrade infrastructure
- Upgrade play equipment and parks as based on the Recreation and Parks Commission priority list
- Address ADA concerns
- Upgrade Parks' lighting and safety

The proposed Parks' CIP endeavors to balance the current needs of the community with the resources necessary to maintain and operate the proposed improvements. Along with upgrading of the aging infrastructure, play equipment, and compliance with ADA requirements, this Parks' CIP budget anticipates 'life cycle' replacement and maintenance needs of the improvements.

# Capital Improvement Department-23

## Parks Division

### Plan Highlight

#### Unity Park

Project Cost: \$2,745,312  
Funding Source: State Parks Prop 84 Grant

This project will develop a park along the Richmond Greenway. Project includes the acquisition of a parcel at 16<sup>th</sup> and the Greenway, installation of a children's play area, creation of a community garden, and great lawn expansion of the edible forest and community garden space.

## Capital Improvement Department-29 Parks CIP Overview

CIP Project(s)	Performance Benchmarks	2016-17	2016-17	2016-17	2016-17	2016-17
		1-yr Goal	1 <sup>st</sup> Qtr. Target	2 <sup>nd</sup> Qtr. Target	3 <sup>rd</sup> Qtr. Target	4 <sup>th</sup> Qtr. Target
<b>1.29.s: JPA Sports Field Partnership</b>						
Maintenance		100%	-	-	100%	*
<b>1.29.t: Marina Bay Trail – Cosco Busan</b>						
Construction		100%	100%	*	*	*
<b>1.29.u: Pt. Molate Beach - Cosco Busan</b>						
Construction		100%	50%	100%	*	*
<b>1.29.v: Shields-Reid Park Renovations</b>						
Construction		100%	-	-	50%	100%
<b>1.29.w: Unity Park</b>						
Construction		100%	25%	50%	75%	100%

- 1. Maintain and Enhance The Physical Environment
- 2. Promote a Safe and Secure Community
- 3. Promote Economic Vitality
- 4. Promote Sustainable Communities
- 5. Promote Effective Government

=Performance Benchmarks  
 =Work Completion Targets  
 \* = Work Completed

### FY2016-17 to FY2020-21 Capital Improvement Plan

## Capital Improvement Department-29

### Parks CIP Overview

#### TOTAL CIP BUDGET - HISTORICAL COMPARISON

	FY2015-16 Adopted	FY2015-16 Actual 3/31/2016	FY2016-17 Adopted	FY2017-18 Proposed	FY2018-19 Proposed	FY2019-20 Proposed	FY2020-21 Proposed	5 Year Total
<b>SOURCES BY FUND</b>								
General Capital Outlay - 2001	3,205,564	191,830	2,856,598					2,856,598
Impact Fees Parks - 2110	32,358	32,358	77,000					77,000
Impact Fees Opens Space - 2116			150,000					150,000
<b>Sources Total</b>	<b>3,237,922</b>	<b>224,188</b>	<b>3,083,598</b>	-	-	-	-	<b>3,083,598</b>
<b>USES BY PROJECT</b>								
Elm Park	3,066	3,066						-
JPA Sports Field Partnership	15,000	15,000	15,000					15,000
Marina Bay Trail - Cosco Busan	27,401	13,579	13,822					13,822
Pt. Molate Beach - Cosco Busan	10,943		97,464					97,464
Shields-Reid Park Renovations	17,358	17,358	212,000					212,000
Unity Park	3,164,154	175,185	2,745,312					2,745,312
								-
<b>USES BY PROJECT TOTAL</b>	<b>3,237,922</b>	<b>224,188</b>	<b>3,083,598</b>	-	-	-	-	<b>3,083,598</b>
<b>USES BY ORG CODE</b>								
General Capital Outlay - 20191331	3,205,564	191,830	2,856,598	-	-	-	-	2,856,598
Park Impact Fees - 21095031	32,358	32,358	77,000	-	-	-	-	77,000
Open Space Impact Fee - 21695031			150,000					150,000
<b>TOTAL CIP BUDGET</b>	<b>3,237,922</b>	<b>224,188</b>	<b>3,083,598</b>	-	-	-	-	<b>3,083,598</b>

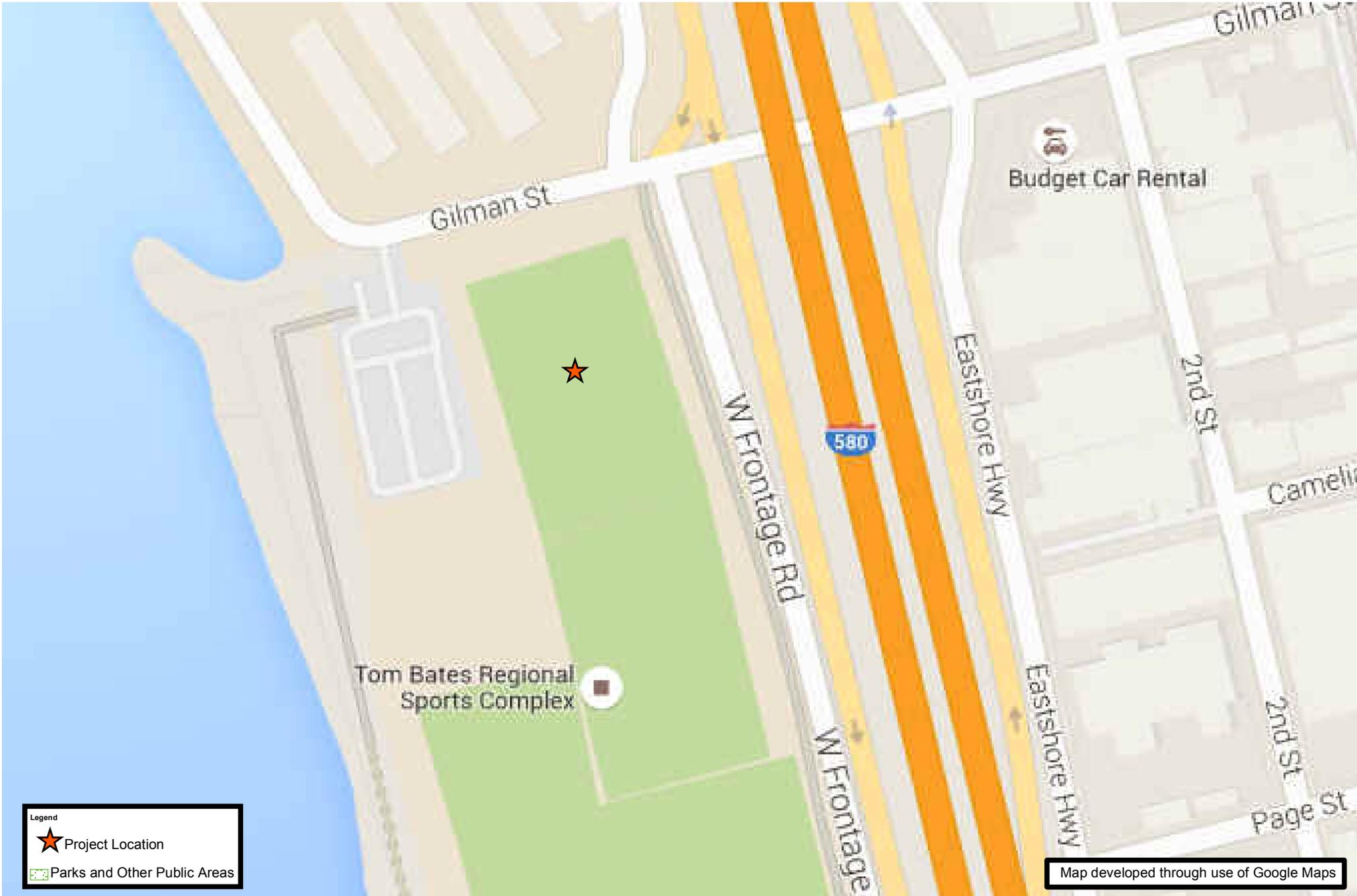
### FY2016-17 to FY2020-21 Capital Improvement Plan

**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Joint Powers Agreement (JPA) Sports Field Partnership	
<b>Project Manager:</b>	Yader Bermudez	
<b>Department Responsible:</b>	Public Works	
<b>Project Description:</b>	This is an agreement the City of Richmond entered into with the cities of El Cerrito, Albany, Berkeley, and Emeryville to build and maintain a multi-use sports field.	
	Project ID: 03A01	
	Project Location: 400 Gilman Street, Albany, CA	
	Planning and Design: \$ -	
	Construction: \$ -	
	Equipment: \$ -	
	Contingency/Other: \$ 15,000	
	<b>Total: \$ 15,000</b>	
	Estimated Start Date: 7/1/2015	
	Estimated Completion Date: 6/30/2017	
<b>Justification:</b>	This is an agreement that has been entered into with the other agencies.	
<b>Total Estimated Cost:</b>	<b>\$15,000</b>	

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
2110	Park Impact Fee	\$ 15,000	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 15,000</b>	<b>\$ 15,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------



**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Marina Bay Trail - Cosco Busan		
<b>Project Manager:</b>	Yader Bermudez		
<b>Department Responsible:</b>	Public Works		
<b>Project Description:</b>	Replace dilapidated pedestrian pathway lighting with new LED technology decorative bollards to improve the look and safety of the trail. Scope includes removal and replacement of old with new including footings, and all necessary wire conductors.		
	Project ID:	OND01	
	Project Location:	Marina Bay	
	Planning and Design:	\$ -	
	Construction:	\$ 13,822	
	Equipment:	\$ -	
	Contingency/Other:	\$ -	
	<b>Total:</b>	<b>\$ 13,822</b>	
	Estimated Start Date:	7/1/2015	
	Estimated Completion Date:	12/31/2016	
<b>Justification:</b>	Existing wiring has deteriorated and all wiring has been vandalized. System has been non-functional for several years. This project will restore the lighting, therefore improving the public safety of the trail users.		
<b>Total Estimated Cost:</b>	<b>\$13,822</b>		

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
2001	General Capital	\$ 13,822	\$ -	\$ -	\$ -	\$ -
<b>Total</b>		<b>\$ 13,822</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ 10,000</b>
--	------------------

**City of Richmond**  
**Capital Improvement Plan**  
**FY2016 through FY2020**  
**Project Description Report**

<b>Project Name:</b>	Pt. Molate Beach - Cosco Busan															
<b>Project Manager:</b>	Yader Bermudez															
<b>Department Responsible:</b>	Public Works															
<b>Project Description:</b>	To provide additional public park space to the residents as well as visitors of the City of Richmond.															
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Project ID:</td> <td style="text-align: right;">0NC01</td> </tr> <tr> <td>Project Location:</td> <td style="text-align: right;">Point Molate</td> </tr> <tr> <td>Planning and Design:</td> <td style="text-align: right;">\$ -</td> </tr> <tr> <td>Construction:</td> <td style="text-align: right;">\$ 97,464</td> </tr> <tr> <td>Equipment:</td> <td style="text-align: right;">\$ -</td> </tr> <tr> <td>Contingency/Other:</td> <td style="text-align: right;">\$ -</td> </tr> <tr> <td><b>Total:</b></td> <td style="text-align: right;"><b>\$ 97,464</b></td> </tr> </table>		Project ID:	0NC01	Project Location:	Point Molate	Planning and Design:	\$ -	Construction:	\$ 97,464	Equipment:	\$ -	Contingency/Other:	\$ -	<b>Total:</b>	<b>\$ 97,464</b>
Project ID:	0NC01															
Project Location:	Point Molate															
Planning and Design:	\$ -															
Construction:	\$ 97,464															
Equipment:	\$ -															
Contingency/Other:	\$ -															
<b>Total:</b>	<b>\$ 97,464</b>															
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Estimated Start Date:</td> <td style="text-align: right;">7/1/2014</td> </tr> <tr> <td>Estimated Completion Date:</td> <td style="text-align: right;">12/31/2016</td> </tr> </table>	Estimated Start Date:	7/1/2014	Estimated Completion Date:	12/31/2016											
Estimated Start Date:	7/1/2014															
Estimated Completion Date:	12/31/2016															
<b>Justification:</b>	It will allow improved access to a public space and restore the park inventory. The City Council, Point Molate Citizens Advisory Committee, and the Recreation and Parks Commission have all received presentations and have been involved in the process.															
<b>Total Estimated Cost:</b>	<b>\$97,464</b>															

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
2001	General Capital	\$ 97,464	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 97,464</b>	<b>\$ 97,464</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ 325,000</b>
--	-------------------

# SAN FRANCISCO BAY TRAIL PROJECT

## Richmond

**Bay Trail**

Complete

Incomplete

Connector trails

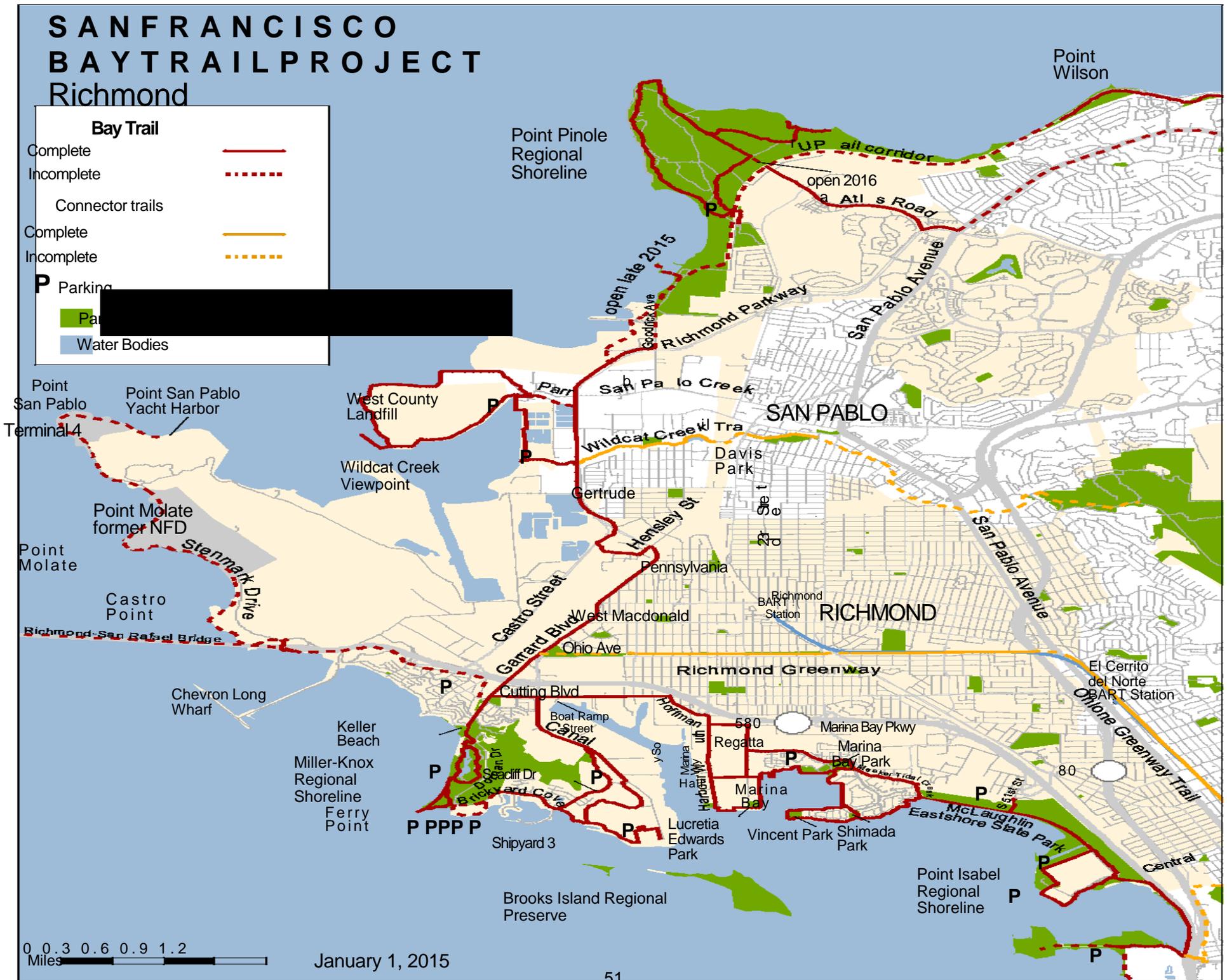
Complete

Incomplete

**P** Parking

Parks

Water Bodies



0 0.3 0.6 0.9 1.2 Miles

January 1, 2015

**City of Richmond**  
 Capital Improvement Plan  
 FY2017 through FY2021  
**Project Description Report**

<b>Project Name:</b>	Shields-Reid Park	
<b>Project Manager:</b>	Yader Bermudez	
<b>Department Responsible:</b>	Capital Improvement Department - Parks	
<b>Project Description:</b>	Final improvements needed to complete park upgrade.	
	Project ID: Project Location: 1410 Kelsey Street Planning and Design: \$ - Construction: \$ 212,000 Equipment: \$ - Contingency/Other: \$ - <b>Total: \$ 212,000</b>	
	Estimated Start Date: 7/1/2016 Estimated Completion Date: 6/30/2017	
<b>Justification:</b>	Project close out.	
<b>Total Estimated Cost:</b>	<b>\$212,000</b>	

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
2110	Park Impact Fee	\$ 62,000				
2116	Open Space Impact Fee	\$ 150,000				
<b>Total</b>	<b>\$ 212,000</b>	<b>\$ 212,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------

# Shields-Reid Park



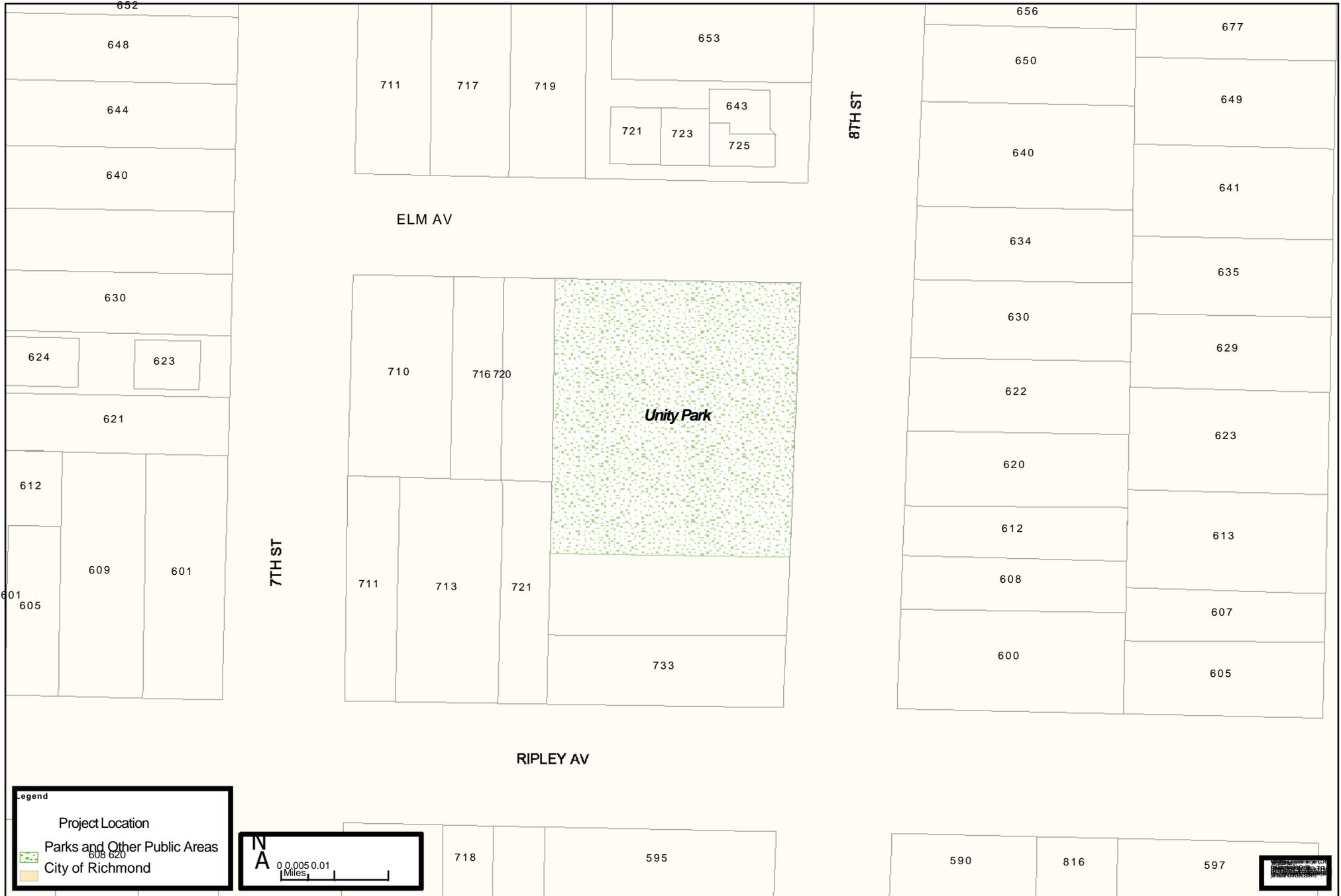
**City of Richmond**  
**Capital Improvement Plan**  
**FY2016 through FY2020**  
**Project Description Report**

<b>Project Name:</b>	Unity Park		
<b>Project Manager:</b>	Yader Bermudez		
<b>Department Responsible:</b>	Public Works		
<b>Project Description:</b>	Develop a park along the Richmond Greenway. Project includes acquisition of a parcel at 16th and the Greenway and future amenities are: community plaza, play area, walking paths, edible forest and community garden, site furnishing, restroom, lighting and public art.		
	Project ID:	03O02	
	Project Location:	Ohio Street between 2nd and 8th, Ohio Street between Marina and 22nd	
	Planning and Design:	\$ -	
	Construction:	\$ 2,745,312	
	Equipment:	\$ -	
	Contingency/Other:	\$ -	
	<b>Total:</b>	<b>\$ 2,745,312</b>	
	Estimated Start Date:	7/1/2014	
	Estimated Completion Date:	6/30/2017	
<b>Justification:</b>	To develop the Richmond Greenway into a park and expand on the current collective activities such as: urban agriculture, public art, bike and pedestrian travel.		
<b>Total Estimated Cost:</b>	<b>\$2,745,312</b>		

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
2001	General Capital	\$ 2,745,312	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 2,745,312</b>	<b>\$ 2,745,312</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$</b>	<b>400,000</b>
--	-----------	----------------

# Unity Park





This page is intentionally left blank

# Water Resource Recovery-22

## Wastewater Division



Digester Station

*Mission: To provide continuous operation and maintenance of the City of Richmond Municipal Sewer District, wastewater collection and treatment system for domestic, commercial, and industrial wastewater in the Richmond area of Contra Costa County.*

### Overview

The operation and maintenance tasks are provided via a 20-year contract with Veolia Water North America under the direction of the Director of Water Resource Recovery. The wastewater collection system consists of sewer collection pipelines and several sewer lift stations. The wastewater treatment system includes screening, grit removal, primary sedimentation, activated sludge, secondary clarification, anaerobic sludge digestion, chlorination, and de-chlorination.



Co-generation Project

Wastewater collection and treatment system Capital Improvement Plan (CIP) projects are evaluated using the following criteria established by the City and Veolia:

- Projects needed for health and safety
- Projects needed to maintain the quality of effluent flow
- Projects mandated by regulatory agencies
- Projects that ensure adequate process reliability
- Projects that improve efficiency and effectiveness



Plant Improvements

# Water Resource Recovery-22

## Wastewater Division

### Plan Highlights

#### 13<sup>th</sup> Street Sewer Capacity Improvements

Project Cost: \$7,104,000 Total Project Cost over multiple fiscal years.  
Funding Source: Clean Water State Revolving Fund Loan/Enterprise Fund

This project replaces sewer pipe upstream of the 13th Street interceptor, and upsizes pipe on 13th Street between Costa and Garvin Avenues.

#### Electrical Distribution System Upgrade

Project Cost: \$3,900,000 Total Project Cost over multiple fiscal years.  
Funding Source: Enterprise Fund

This project primarily consists of safety upgrades to the wastewater treatment plant electrical system.

#### Sanitary Sewer Wet Weather Capacity Improvements

Project Cost: \$5,863,000 Total Project Cost over multiple fiscal years.  
Funding Source: Clean Water State Revolving Fund Loan/Enterprise Fund

This project relieves capacity issues within existing trunk sewers within Cutting and Carlson Boulevards through the rehabilitation of aging upstream collection sewer pipelines. This project will also relieve capacity issues near Hoffman Boulevard, directly south of Cutting Boulevard, through the replacement of aging collection sewer pipelines.

#### Wastewater Treatment Plant Critical Improvements

Project Cost: \$19,804,000 Total Project Cost over multiple fiscal years.  
Funding Source: Clean Water State Revolving Fund Loan/Enterprise Fund

This project includes replacing the mechanical surface aerators with a submerged diffuser/blower system, and includes construction of a new screening, and grit facility to replace the non-functioning grit chambers. This project also includes improvements to the existing secondary clarifiers to improve process performance and replace equipment and structural elements that are deteriorated.

## Water Resource Recovery Department Wastewater CIP Overview

CIP Project(s)	Performance Benchmarks	2016-17	2016-17	2016-17	2016-17	2016-17
		1-yr Goal	1 <sup>st</sup> Qtr. Target	2 <sup>nd</sup> Qtr. Target	3 <sup>rd</sup> Qtr. Target	4 <sup>th</sup> Qtr. Target
<b>1.22.a: 13th and Dunn Capacity Improvements</b>						
RFP		100%	100%	*	*	*
Design Contract		100%	100%	*	*	*
Design		100%	25%	50%	75%	100%
Construction Management Contract		100%	100%	*	*	*
Construction		50%	-	-	25%	50%
<b>1.22.b: Electric System Distribution</b>						
RFP		100%	100%	*	*	*
Construction Management Contract		100%	100%	*	*	*
Construction		100%	25%	50%	75%	100%
<b>1.22.c: Force Main System Assessment</b>						
Study		100%	25%	50%	75%	100%
<b>1.22.e: Sanitary Sewer Wet Weather Capacity Improvements</b>						
RFP		100%	100%	*	*	*
Design Contract		100%	100%	*	*	*
Design		100%	25%	50%	100%	
Construction Management Contract		100%	-	100%	*	*
Construction		50%	-	-	25%	50%
<b>1.22.f: Wastewater Treatment Plant Critical Improvements</b>						
RFP		100%	100%	*	*	*
Design Contract		100%	-	100%	*	*
Design		100%	-	-	50%	100%
Construction Management Contract		100%	100%			

1. Maintain and Enhance The Physical Environment
2. Promote a Safe and Secure Community
3. Promote Economic Vitality
4. Promote Sustainable Communities
5. Promote Effective Government

=Performance Benchmarks  
 =Work Completion Targets  
 \* = Work Completed

## Water Resource Recovery Department-22 Wastewater CIP Overview

### TOTAL CIP BUDGET - HISTORICAL COMPARISON

	FY2015-16 Adopted	FY2015-16 Actuals 3/31/2016	FY2016-17 Adopted	FY2017-18 Proposed	FY2018-19 Proposed	FY2019-20 Proposed	FY2020-21 Proposed	5 Year Total
<b>SOURCES BY FUND</b>								
Wastewater - 4003	11,766,257	2,552,018	6,536,000	12,019,000	5,182,000	6,682,000	6,500,000	36,919,000
<b>Sources Total</b>	<b>11,766,257</b>	<b>2,552,018</b>	<b>6,536,000</b>	<b>12,019,000</b>	<b>5,182,000</b>	<b>6,682,000</b>	<b>6,500,000</b>	<b>36,919,000</b>
<b>USES BY PROJECT</b>								
13th and Dunn Capacity Improvements			1,000,000	6,104,000				7,104,000
Electrical System Distribution System Upgrade			2,900,000	1,000,000				3,900,000
Force Main System Assessment			248,000					248,000
Sanitary Sewer Wet Weather Capacity Improvements			448,000	2,915,000	1,000,000	1,000,000	500,000	5,863,000
Sewer Line Repairs	963,232	249,443						-
Treatment Plant Equipment - (Vactor Truck and Jet Rodder)	945,000							-
Treatment Plant Improvements	7,000,000	463,056						-
Wastewater Treatment Plant Critical Improvements			1,940,000	2,000,000	4,182,000	5,682,000	6,000,000	19,804,000
Wet Weather Peak Flow Storage Project	2,858,025	1,839,519						-
<b>USES-BY PROJECT TOTAL</b>	<b>11,766,257</b>	<b>2,552,018</b>	<b>6,536,000</b>	<b>12,019,000</b>	<b>5,182,000</b>	<b>6,682,000</b>	<b>6,500,000</b>	<b>36,919,000</b>
<b>USES BY ORG CODE</b>								
Wastewater CIP - 40322931	11,766,257	2,552,018	6,536,000	12,019,000	5,182,000	6,682,000	6,500,000	36,919,000
<b>TOTAL CIP BUDGET</b>	<b>11,766,257</b>	<b>2,552,018</b>	<b>6,536,000</b>	<b>12,019,000</b>	<b>5,182,000</b>	<b>6,682,000</b>	<b>6,500,000</b>	<b>36,919,000</b>

### FY2016-17 to FY2019-21 Capital Improvement Plan

**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	13th Street and Dunn Capacity Improvements		
<b>Project Manager:</b>	Ryan Smith		
<b>Department Responsible:</b>	Water Resource Recovery - Wastewater		
<b>Project Description:</b>	<p>This project replaces approximately 22,000 lineal feet of collector sewer pipe upstream of the 13th Street interceptor, and upsizes approximately 2,200 lineal feet of pipe on 13th Street between Costa and Garvin Avenues. The project is intended to address chronic sanitary sewer overflow (SSO) issues from the manholes located on the 13th Street Interceptor.</p>		
	Project ID:	01A08	
	Project Location:	13th & Dunn	
	Planning and Design:	\$ -	
	Construction:	\$ 7,104,000	
	Equipment:	\$ -	
	Contingency/Other:	\$ -	
	<b>Total:</b>	<b>\$ 7,104,000</b>	
	Estimated Start Date:	3/1/2016	
	Estimated Completion Date:	8/31/2017	
<b>Justification:</b>	This project is intended to address chronic SSO issues from the manholes located on the 13th Street interceptor.		
<b>Total Estimated Cost:</b>	<b>\$ 7,104,000</b>		

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
4003	Wastewater	\$ 1,000,000	\$ 6,104,000	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 7,104,000</b>	<b>\$ 1,000,000</b>	<b>\$ 6,104,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------

**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Electrical Distribution System Upgrade																	
<b>Project Manager:</b>	Ryan Smith																	
<b>Department Responsible:</b>	Water Resource Recovery - Wastewater																	
<b>Project Description:</b>	<p>The project work consists of 15kV switchgear; 480 V switchboards; 480 V motor control center; 480 V power distribution panels and all associated work; conduit routing, conductors, ductbanks, fiber optic network, walk-in electrical enclosures and all associated work</p> <p>Project ID: 01A10  Project Location: 601 Canal Blvd.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Planning and Design:</td> <td style="width: 10%; text-align: right;">\$</td> <td style="width: 30%; text-align: right;">-</td> </tr> <tr> <td>Construction:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">3,900,000</td> </tr> <tr> <td>Equipment:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Contingency/Other:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td><b>Total:</b></td> <td style="text-align: right;"><b>\$</b></td> <td style="text-align: right;"><b>3,900,000</b></td> </tr> </table> <p>Estimated Start Date: 3/1/2016  Estimated Completion Date: 12/31/2016</p>			Planning and Design:	\$	-	Construction:	\$	3,900,000	Equipment:	\$	-	Contingency/Other:	\$	-	<b>Total:</b>	<b>\$</b>	<b>3,900,000</b>
Planning and Design:	\$	-																
Construction:	\$	3,900,000																
Equipment:	\$	-																
Contingency/Other:	\$	-																
<b>Total:</b>	<b>\$</b>	<b>3,900,000</b>																
<b>Justification:</b>	<p>The electrical distribution system at the wastewater plant has not been upgraded in decades and is on the verge of failure. The majority of the ductbanks were installed in 1953 and 1967. Many 1950's and 1960's era (motor control centers) MCC's and transformers remain in service throughout the plant. The poor condition has resulted in shorts and electrical fires, to name a few. The failing electrical system could potentially create serious defects, thereby reducing the operational ability of the plant to sufficiently run all of the equipment required to process wastewater. A failure of any component could leave the plant without power for an extended period of time, resulting in sewage spills and NPDES permit violations. Safety is also a concern should any of the electrical system fail; there is a high potential for personal injury.</p>																	
<b>Total Estimated Cost:</b>	<b>\$</b>	<b>3,900,000</b>																

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
4003	Wastewater	\$ 2,900,000	\$ 1,000,000	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 3,900,000</b>	<b>\$ 2,900,000</b>	<b>\$ 1,000,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------

**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Force Main Assessment	
<b>Project Manager:</b>	Ryan Smith	
<b>Department Responsible:</b>	Water Resource Recovery - Wastewater	
<b>Project Description:</b>	<p>In 2015, V&amp;A Engineers performed Phase 1 of the Condition Assessment, which reviewed limited available drawings, performed reconnaissance site visits on five force mains systems, and developed a condition assessment approach for Phase 2. This proposed Phase 2, a capital project, will be the Condition Assessment itself of the five force main systems review in Phase 1, which are (1) Marina Bay, (2) Ferry Point/Miller Knox/Keller Beach, (3) Canyon Estates Pump Station 1, (4) Seaclyff Brickyard and Brickyard Booster, and (5) Port.</p> <p>Project ID: 01A08  Project Location: Various  Planning and Design: \$ 248,000  Construction: \$ -  Equipment: \$ -  Contingency/Other: \$ -  <b>Total: \$ 248,000</b></p> <p>Estimated Start Date: 7/1/2016  Estimated Completion Date: 7/31/2017</p>	
<b>Justification:</b>	The City of Richmond's Force Main System is old and in need of repair in places. The Baykeeper deadline requirement for a Condition Assessment on the system was completed and met by December 1, 2015.	
<b>Total Estimated Cost:</b>	<b>\$ 248,000</b>	



SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
4003	Wastewater	\$ 248,000	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 248,000</b>	<b>\$ 248,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------

**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Sanitary Sewer Wet Weather Capacity Improvements		
<b>Project Manager:</b>	Ryan Smith		
<b>Department Responsible:</b>	Water Resource Recovery - Wastewater		
<b>Project Description:</b>	<p>This project relieves capacity issues within existing trunk sewers within Cutting and Carlson Blvds and Hoffman Blvd. through the rehabilitation of aging upstream collection sewer pipelines. The project replaces mostly 6- and 8-inch diameter sewers, and also several larger sewers up to 12-inches in diameter. In total, the project replaces approximately 11,000 lineal feet of pipe in three different areas. CCTV inspection is included during preliminary design to confirm that all pipes with issues indicating I&amp;I are addressed as part of the project.</p>		
	Project ID:	01A08	
	Project Location:	Cutting and Carlson Blvds.	
	Planning and Design:	\$ 448,000	
	Construction:	\$ 5,415,000	
	Equipment:	\$ -	
	Contingency/Other:	\$ -	
	<b>Total:</b>	<b>\$ 5,863,000</b>	
	Estimated Start Date:	10/1/2016	
	Estimated Completion Date:	8/31/2018	
<b>Justification:</b>	Decrease potential for Sanitary Sewer Overflows (SSO's). It is anticipated pipe segments will be replaced using open trench methods in order to maintain sufficient pipe diameter for maintenance, reduce I&I, and eliminate sags and/or deteriorated pipe.		
<b>Total Estimated Cost:</b>	<b>\$ 5,863,000</b>		

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
4003	Wastewater	\$ 448,000	\$ 2,915,000	\$ 1,000,000	\$ 1,000,000	\$ 500,000
<b>Total</b>	<b>\$ 5,863,000</b>	<b>\$ 448,000</b>	<b>\$ 2,915,000</b>	<b>\$ 1,000,000</b>	<b>\$ 1,000,000</b>	<b>\$ 500,000</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------

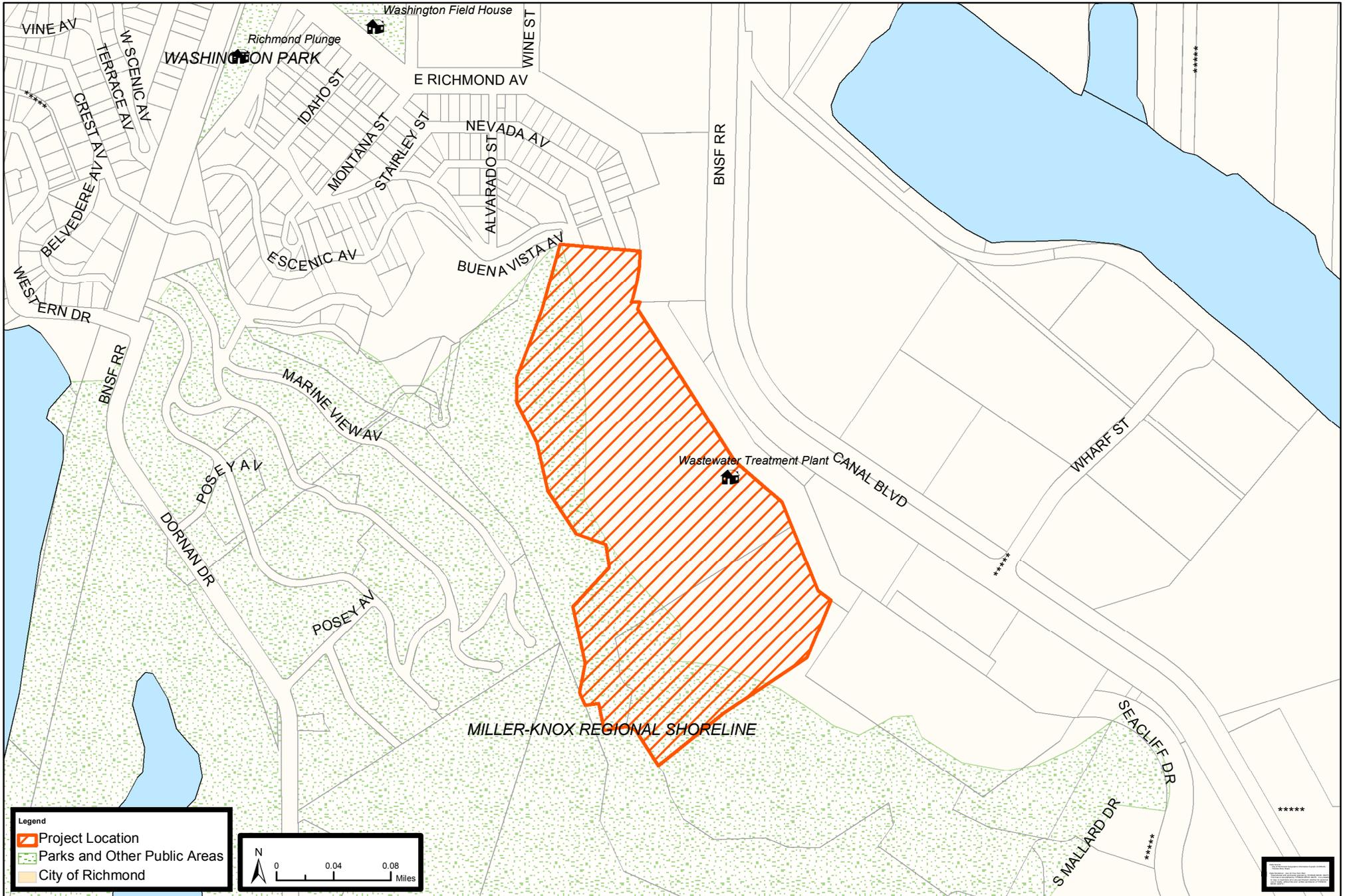
**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Wastewater Treatment Plant Critical Improvements		
<b>Project Manager:</b>	Ryan Smith		
<b>Department Responsible:</b>	Water Resource Recovery - Wastewater		
<b>Project Description:</b>	<p>This project includes replacing the mechanical surface aerators with a submerged diffuser/blower system. This project will improve process reliability and efficiency, and reduce health and safety impacts to staff. This project also includes construction of a new screening and grit facility to replace the non-functioning grit chambers. This project will improve grit and screenings removal and reduce O&amp;M costs for downstream processes.</p>		
	Project ID:	01A10	
	Project Location:	601 Canal Blvd.	
	Planning and Design:	\$ 750,000	
	Construction:	\$ 19,054,000	
	Equipment:	\$ -	
	Contingency/Other:	\$ -	
	<b>Total:</b>	<b>\$ 19,804,000</b>	
	Estimated Start Date:	7/1/2016	
	Estimated Completion Date:	7/31/2018	
<b>Justification:</b>	This project will improve process reliability and efficiency, and reduce health and safety impacts to WWTP Operations staff.		
<b>Total Estimated Cost:</b>	<b>\$ 19,804,000</b>		

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
4003	Wastewater	\$ 1,940,000	\$ 2,000,000	\$ 4,182,000	\$ 5,682,000	\$ 6,000,000
<b>Total</b>	<b>\$ 19,804,000</b>	<b>\$ 1,940,000</b>	<b>\$ 2,000,000</b>	<b>\$ 4,182,000</b>	<b>\$ 5,682,000</b>	<b>\$ 6,000,000</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------

# Wastewater Treatment Plant - 601 Canal Boulevard



# Water Resource Recovery Department

## Stormwater Division



Storm Drain Construction



Storm Drain Improvements

**Mission:** *To provide for the efficient and effective cleaning and repair of the stormwater collection system, control pollutant loading to the receiving water bodies, mitigate flooding hazards and implement the federally- mandated Stormwater Pollution Prevention Program in the Richmond area of Contra Costa County.*

### Overview

In accordance with the City's General Plan, the goals of the Storm Sewer System Capital Improvement Program are to reduce the risk of drainage-related surface damage, and to protect the quality of stormwater runoff in order to comply with state and federal regulations. Hence, The City of Richmond is responsible for constructing, as budgets and City Council priorities permit, facilities for conveying and treating surface stormwater runoff in the City's Urban Service Area prior to discharge to adjacent stream channels, creeks and the San Francisco Bay.

The operations and maintenance of the storm drain collection system is provided via a 20-year contract with Veolia Water North America under the direction of the Director of Water Resource Recovery.

The Storm Sewer Operating Fund provides funding for storm system maintenance, the Storm Drain Management System, and the federally-mandated Point and Non-Point Source Pollution Control Program through Storm Sewer Service charge fees. These charges are assessed annually on properties and collected with real property taxes.

New and replacement storm drain pipelines must be designed to accommodate a ten-year storm.

Storm sewer systems in newly-developed areas are primarily constructed by developers as a condition of development. Drainage impact fees, assessed on developments, provide funding for projects in developed areas to enhance existing capacity and improve operations and maintenance.

# Water Resource Recovery Department

## Stormwater Division

### Plan Highlights

#### Hazel Street Storm Drain Improvements

Project Cost: \$140,000  
Funding Source: Impact Fee Fund – Storm Drainage

The County is replacing the storm drain system at the intersection of Hazel and Sonoma streets, with a portion of the project within City limits. This cost is for the City's share of the project.

#### National Court Storm Drain Improvements

Project Cost: \$116,000  
Funding Source: Impact Fee Fund – Storm Drainage

This project is for upsizing the pipe and/or adding larger piping parallel will improve the capacity of the storm drain in this area to prevent overflow and flooding.

## Water Resource Recovery Department Stormwater CIP Overview

CIP Project(s)	Performance Benchmarks	2016-17 1-yr Goal	2016-17 1 <sup>st</sup> Qtr. Target	2016-17 2 <sup>nd</sup> Qtr. Target	2016-17 3 <sup>rd</sup> Qtr. Target	2016-17 4 <sup>th</sup> Qtr. Target
<b>1.22.g: Hazel Street Storm Drain Improvements</b>						
	RFP	100%	100%	*	*	*
	Design Contract	100%	100%	*	*	*
	Design	100%	25%	50%	75%	100%
	Construction Management Contract	100%	100%	*	*	*
	Construction	50%	-	-	25%	50%
<b>1.22.h: National Court System Storm Drain Improvements</b>						
	RFP	100%	100%	*	*	*
	Construction Management Contract	100%	100%	*	*	*
	Construction	100%	25%	50%	75%	100%

1. Maintain and Enhance The Physical Environment
2. Promote a Safe and Secure Community
3. Promote Economic Vitality
4. Promote Sustainable Communities
5. Promote Effective Government

=Performance Benchmarks  
 =Work Completion Targets  
 \* = Work Completed

## FY2016-17 to FY2020-21 Capital Improvement Plan

## Water Resource Recovery Department Stormwater CIP Overview

### TOTAL CIP BUDGET - HISTORICAL COMPARISON

	FY2015-16 Adopted	FY2015-16 Actuals 3/31/2016	FY2016-17 Adopted	FY2017-18 Proposed	FY2018-19 Proposed	FY2019-20 Proposed	FY2020-21 Proposed	5 Year Total
<b>SOURCES BY FUND</b>								
Storm Drainage Impact Fee - 2119 Stormwater CIP Division - 4006	475,938	7,200	256,000	-	-	-	-	256,000
<b>Sources Total</b>	<b>475,938</b>		<b>256,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>256,000</b>
<b>USES BY PROJECT</b>								
1St & Cutting - Bay Area Stormwater Management Association (BASMAA)	14,400	7,200						-
Hazel Street Storm Drain Improvements			140,000					-
National Court Storm Drainage Improvements			116,000					-
Nevin Street Improvements - BASMAA	461,538							-
<b>USES-BY PROJECT TOTAL</b>	<b>475,938</b>	<b>7,200</b>	<b>256,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>USES BY ORG CODE</b>								
Storm Drainage Impact Fee - 21931031			256,000					256,000
Stormwater CIP Division - 40623331	475,938	7,200	-	-	-	-	-	-
<b>TOTAL CIP BUDGET</b>	<b>475,938</b>	<b>7,200</b>	<b>256,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>256,000</b>

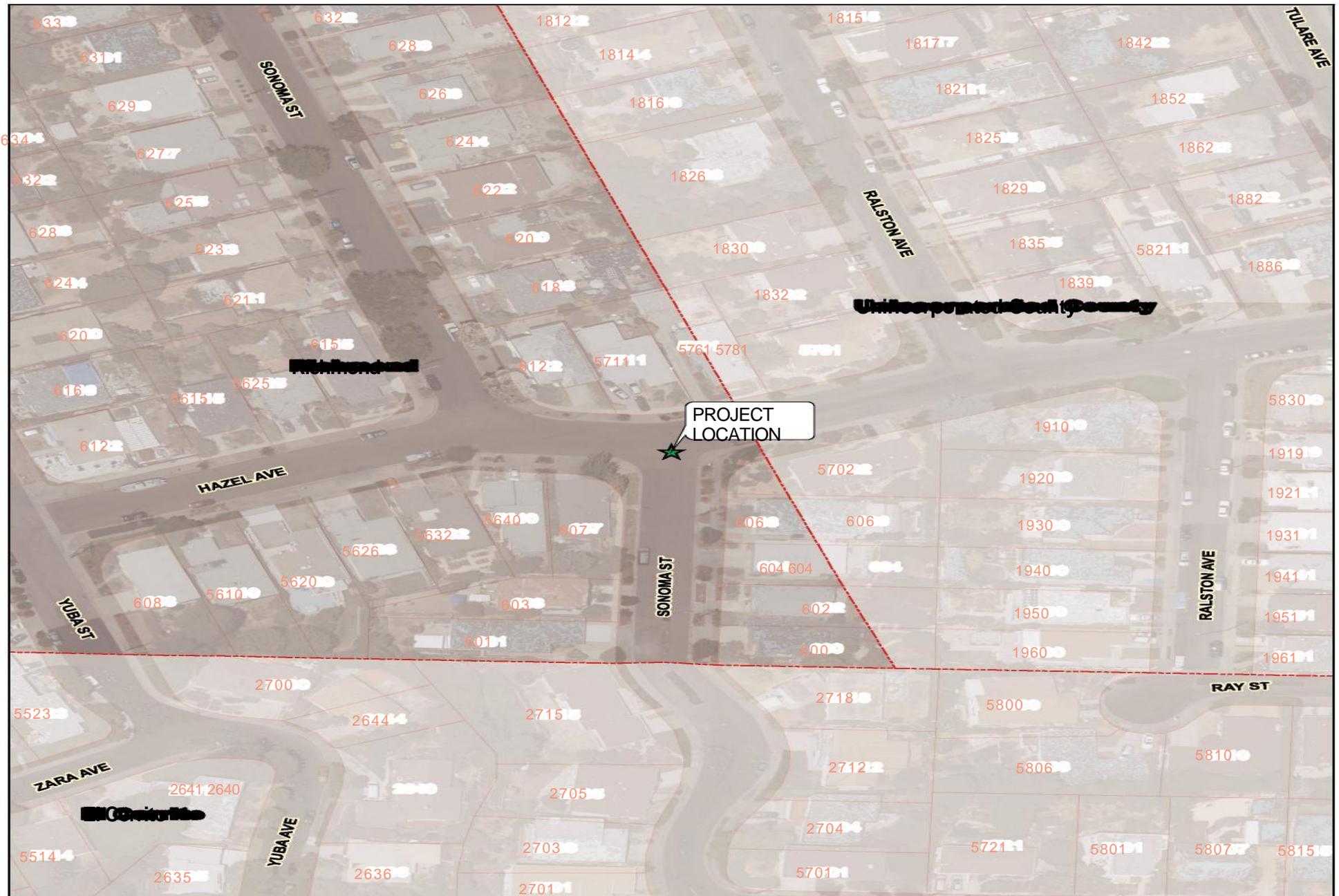
### FY2016-17 to FY2020-21 Capital Improvement Plan

**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Hazel Street Storm Drain Improvements										
<b>Project Manager:</b>	Ryan Smith										
<b>Department Responsible:</b>	Water Resource Recovery - Stormwater										
<b>Project Description:</b>	The storm drain system at the intersection of Hazel and Sonoma streets has collapsed and has caused a sinkhole. The County is performing a replacement project, a portion of which is within Richmond City limits.										
	Project ID: 01A09										
	Project Location: Hazel and Sonoma Streets										
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Planning and Design:</td> <td style="text-align: right;">\$ -</td> </tr> <tr> <td>Construction:</td> <td style="text-align: right;">\$ 140,000</td> </tr> <tr> <td>Equipment:</td> <td style="text-align: right;">\$ -</td> </tr> <tr> <td>Contingency/Other:</td> <td style="text-align: right;">\$ -</td> </tr> <tr> <td><b>Total:</b></td> <td style="text-align: right;"><b>\$ 140,000</b></td> </tr> </table>		Planning and Design:	\$ -	Construction:	\$ 140,000	Equipment:	\$ -	Contingency/Other:	\$ -	<b>Total:</b>
Planning and Design:	\$ -										
Construction:	\$ 140,000										
Equipment:	\$ -										
Contingency/Other:	\$ -										
<b>Total:</b>	<b>\$ 140,000</b>										
	Estimated Start Date: 7/1/2016										
	Estimated Completion Date: 8/31/2016										
<b>Justification:</b>	Repairing storm drain system and repairing sink hole. County is coordinating the work, and the City is responsible for its share of the project within City limits.										
<b>Total Estimated Cost:</b>	<b>\$ 140,000</b>										

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
2119	Stormwater Impact Fee	\$ 140,000	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 140,000</b>	<b>\$ 140,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------



PROJECT LOCATION

Unincorporated Santa Clara County

Richmond

San Jose

-  Property Lines
-  City Limits

(11) 1/16/06



# HAZEL AVENUE Storm Drain Improvements

## Project Location Map



**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	National Court System Storm Drain Improvements															
<b>Project Manager:</b>	Ryan Smith															
<b>Department Responsible:</b>	Water Resource Recovery - Stormwater															
<b>Project Description:</b>	The storm drain which crosses National Court at Canal Blvd is undersized and surcharges during heavy rainfall effecting north bound lanes on Canal Blvd. There is approx 128 feet of 8" pipe that needs to be upsized at this location as the pipe size both upstream and downstream is 20", causing a bottleneck. Upsizing the pipe and/or adding larger piping parallel will improve the capacity of the storm drain to prevent overflow and flooding.															
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Project ID:</td> <td style="text-align: right;">01A09</td> </tr> <tr> <td>Project Location:</td> <td style="text-align: right;">National Court System and Canal Blvd.</td> </tr> <tr> <td>Planning and Design:</td> <td style="text-align: right;">\$ 23,000</td> </tr> <tr> <td>Construction:</td> <td style="text-align: right;">\$ 93,000</td> </tr> <tr> <td>Equipment:</td> <td style="text-align: right;">\$ -</td> </tr> <tr> <td>Contingency/Other:</td> <td style="text-align: right;">\$ -</td> </tr> <tr> <td><b>Total:</b></td> <td style="text-align: right;"><b>\$ 116,000</b></td> </tr> </table>		Project ID:	01A09	Project Location:	National Court System and Canal Blvd.	Planning and Design:	\$ 23,000	Construction:	\$ 93,000	Equipment:	\$ -	Contingency/Other:	\$ -	<b>Total:</b>	<b>\$ 116,000</b>
Project ID:	01A09															
Project Location:	National Court System and Canal Blvd.															
Planning and Design:	\$ 23,000															
Construction:	\$ 93,000															
Equipment:	\$ -															
Contingency/Other:	\$ -															
<b>Total:</b>	<b>\$ 116,000</b>															
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Estimated Start Date:</td> <td style="text-align: right;">7/1/2016</td> </tr> <tr> <td>Estimated Completion Date:</td> <td style="text-align: right;">10/31/2016</td> </tr> </table>	Estimated Start Date:	7/1/2016	Estimated Completion Date:	10/31/2016											
Estimated Start Date:	7/1/2016															
Estimated Completion Date:	10/31/2016															
<b>Justification:</b>	Upsizing the pipe and/or adding larger piping parallel will improve the capacity of the storm drain to prevent overflow and flooding.															
<b>Total Estimated Cost:</b>	<b>\$ 116,000</b>															

SOURCE OF FUNDING							
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021	
2119	Stormwater Impact Fee	\$ 116,000	\$ -	\$ -	\$ -	\$ -	
<b>Total</b>	<b>\$ 116,000</b>	<b>\$ 116,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------



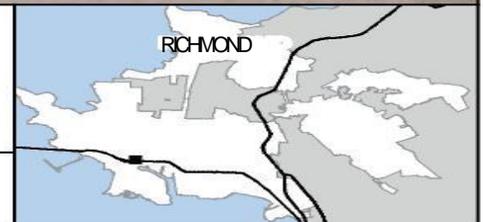
Property Lines  
City Limits

(11) 11/11/11



## NATIONAL COURT Storm Drain Improvements

### Project Location Map



## Department of Infrastructure and Maintenance Operations-23



Point Molate



Marina Bay

**Mission:** *The Department of Infrastructure and Maintenance Operations, Property and Asset Management Division is responsible for managing real property and property assets.*

### Overview

In partnership with our diverse community, we proudly support and sustain the environment and infrastructure through responsiveness, innovation professionalism. Our mission is to provide quality public service with pride and dedication to ensure a higher quality of life for the City of Richmond and our residents. This is accomplished through partnership, teamwork, quality customer service, employee development, continuous improvement and a positive public image.

Property and Asset Management (PAM) Division performs real property and asset management function for the City. Current responsibilities include management of the City Owned Contaminated Properties such as in Marina Bay, Parkway, and former Naval Fuel Depot Point Molate. This Division also provides the Project Manager and Staff Liaison support for City Council's Point Molate Community Advisory Committee. PAM serves as the City representative on the oversight by both State Department of Toxic Substances Control and State Water Quality Control Board designated properties. PAM manages the Marina Lease and functions of the Marina and provides support for City surplus property and real property management.

## Department of Infrastructure and Maintenance Operations-23

### Plan Highlights

#### Marina Bay Dredging

Project Cost: \$2,200,000  
Funding Sources: Marina Rental Income Fund

Provide Marina dredging for Navigation and Marina Bay use

#### Marina Improvements

Project Cost: \$776,200  
Funding Sources: Marina Fund

Provide Safety, Access and Area Improvements

## Department of Infrastructure and Maintenance Operations CIP Overview

CIP Project(s)	Performance Benchmarks	2016-17 1-yr Goal	2016-17 1 <sup>st</sup> Qtr. Target	2016-17 2 <sup>nd</sup> Qtr. Target	2016-17 3 <sup>rd</sup> Qtr. Target	2016-17 4 <sup>th</sup> Qtr. Target
<b>1.23.a: Marina Bay Dredging</b>						
	Design Contract	100%	100%	*	*	*
	Design	100%	100%	*	*	*
	Construction Management Contra	100%	-	75%	100%	*
	Construction	75%	-	50%	75%	*
<b>1.23.b: Marina Capital Improvements</b>						
	Design Contract	100%	100%	*	*	*
	Design	100%	100%	*	*	*
	Construction Management Contra	100%	-	100%	*	*
	Construction	50%	-	-	25%	50%

1. Maintain and Enhance The Physical Environment
2. Promote a Safe and Secure Community
3. Promote Economic Vitality
4. Promote Sustainable Communities
5. Promote Effective Government

=Performance Benchmarks  
 =Work Completion Targets  
 \* = Work Completed

## FY2016-17 to FY2020-21 Capital Improvement Plan

## Department of Infrastructure and Maintenance Operations-23

### CIP Overview

#### TOTAL CIP BUDGET - HISTORICAL COMPARISON

	FY2015-16 Adopted	FY2015-16 Actual 3/31/2016	FY2016-17 Adopted	FY2017-18 Proposed	FY2018-19 Proposed	FY2019-20 Proposed	FY2020-21 Proposed	5 Year Total
<b>SOURCES BY FUND</b>								
Harbor Fund - 2007			776,200					776,200
Marina Fund - 4005			1,650,000	550,000				2,200,000
<b>Sources Total</b>	-	-	<b>2,426,200</b>	<b>550,000</b>	-	-	-	<b>2,976,200</b>
<b>USES BY PROJECT</b>								
Marina Bay Dredging			1,650,000	550,000				2,200,000
Marina Capital Improvements			776,200					776,200
								-
								-
								-
								-
<b>USES BY PROJECT TOTAL</b>	-	-	<b>2,426,200</b>	<b>550,000</b>	-	-	-	<b>2,976,200</b>
<b>USES BY ORG CODE</b>								
Harbor Fund - 2007	-	-	776,200	-	-	-	-	776,200
Marina Fund - 4005			1,650,000					1,650,000
								-
								-
<b>TOTAL CIP BUDGET</b>	-	-	<b>2,426,200</b>	-	-	-	-	<b>2,426,200</b>

### FY2016-17 to FY2020-21 Capital Improvement Plan

**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Marina Bay Dredging	
<b>Project Manager:</b>	Craig Murray	
<b>Department Responsible:</b>	Department of Infrastructure and Maintenance	
<b>Project Description:</b>	<p>Marina Bay Dredging to the degree required, as indicated by the Bathymetric Survey, Landlord (City) shall dredge the Channel Entrance by December 15, 2000 to a depth of eleven (11) feet below mean lower low water ("MLLW"). Landlord shall periodically dredge the Channel Entrance and the access channel to the Marina Fairway (but not the Marina Fairway) as needed when the floor thereof is less than eight (8) feet below MLLW.</p> <p>Project ID:</p> <p>Project Location: Marina Bay</p> <p>Planning and Design: \$ 200,000</p> <p>Construction: \$ 2,000,000</p> <p>Equipment: \$ -</p> <p>Contingency/Other: \$ -</p> <p><b>Total: \$ 2,200,000</b></p> <p>Estimated Start Date: 8/1/2016</p> <p>Estimated Completion Date: 8/31/2018</p>	
<b>Justification:</b>	Meets obligations of City and performance measures outlined in the Marina lease under Section 10.04 Dredging p.30 of the marina lease dated July 1, 2000. Port, City, Water Transit Authority and Harbormaster have an immediate opportunity to work together and believe that certain soft and staging costs could be shared. Further meetings to be held to determine level of responsibility and estimated costs.	
<b>Total Estimated Cost:</b>	<b>\$2,200,000</b>	

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
4005	Marina	\$ 1,650,000	\$ 550,000	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 2,200,000</b>	<b>\$ 1,650,000</b>	<b>\$ 550,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$0</b>
--	------------

**City of Richmond**  
**Capital Improvement Plan**  
**FY2017 through FY2021**  
**Project Description Report**

<b>Project Name:</b>	Marina Capital Improvements																			
<b>Project Manager:</b>	Craig Murray																			
<b>Department Responsible:</b>	Department of Infrastructure and Maintenance																			
<b>Project Description:</b>	<p>Staff is working with the Harbormaster to schedule Health and Safety compliant Capital Improvements. Current fund allocation is \$776,200. to be prioritized against the following list: Trash capture enclosures; ADA Compliant Dock Access (F&amp;G Dock); F-Dock Extension Wave Attenuator; preliminary design; floating wave attenuator; launch ramp renovation; So. Shore, Area T design work; and Lucretia Edwards Park Restroom, office Improvements, design and construction.</p> <p>Project ID: 23102  Project Location: Marina Bay</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>Estimated Operation and Maintenance Cost:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Planning and Design:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">150,000</td> </tr> <tr> <td>Construction:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">626,200</td> </tr> <tr> <td>Equipment:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Contingency/Other:</td> <td style="text-align: right;">\$</td> <td style="text-align: right;">-</td> </tr> <tr> <td><b>Total:</b></td> <td style="text-align: right;"><b>\$</b></td> <td style="text-align: right;"><b>776,200</b></td> </tr> </table> <p>Estimated Start Date: 8/1/2016  Estimated Completion Date: 8/31/2018</p>	Estimated Operation and Maintenance Cost:	\$	-	Planning and Design:	\$	150,000	Construction:	\$	626,200	Equipment:	\$	-	Contingency/Other:	\$	-	<b>Total:</b>	<b>\$</b>	<b>776,200</b>	
Estimated Operation and Maintenance Cost:	\$	-																		
Planning and Design:	\$	150,000																		
Construction:	\$	626,200																		
Equipment:	\$	-																		
Contingency/Other:	\$	-																		
<b>Total:</b>	<b>\$</b>	<b>776,200</b>																		
<b>Justification:</b>	Projects will improve health & safety components and enhance Marina Bay improvements.																			
<b>Total Estimated Cost:</b>	<b>\$776,200</b>																			

SOURCE OF FUNDING						
Fund No.	Fund Name	FY2017	FY2018	FY2019	FY2020	FY2021
2007	Harbor	\$ 776,200	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 776,200</b>	<b>\$ 776,200</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>Estimated Operation and Maintenance Cost:</b>	<b>\$ -</b>
--	-------------