

SAN DIEGO UNIFIED SCHOOL DISTRICT  
Office of the Superintendent

MAJOR/REPAIR AND REPLACEMENT  
2009/2010 IMPLEMENTATION PLAN

## **Introduction**

The education of the district's students occurs on the grounds and in the buildings of facilities maintained by Physical Plant Operations and Facilities Planning and Construction. The grounds and buildings require a program of care and repair that is the Major Repair and Replacement/Repair and Replacement program (MRR/RR). This report discusses the current status of the program, provides information on the nature of the work performed and the presentation of the program funded at \$25 million for fiscal year 2009/2010 beginning on July 1, 2009. Additionally, this is the continuation of a transition from previous definitions and policies for MRR, the use of new policies adopted on April 8, 2008 and Prop S MRR implementation.

## **Facilities Overview**

The district manages an MRR/RR program to maintain the facilities necessary to support the district's mission of educating children. Maintaining our facilities is a significant responsibility and is continually challenging particularly given the historical and current budget environment both at the district and state levels. It is important to understand the age, quantity and value of the District's facilities, which includes 14.8 million square feet with a current replacement cost of \$4.1 B. The district is comprised of two primary building classifications: 1) permanent buildings that comprise 12,418,731 million square feet, and 2) non-permanent (portable or movable) buildings of 2,387,449 million square feet. These square footage totals represent a net increase of 100,000 square feet from CY 2008 as a result of Sherman Elementary reconstruction and a more accurate accounting of portable classrooms. Attachment A provides specific facilities data.

## **Prop-MM Major Repair and Replacement**

Under Prop MM \$370 million dollars was expended for a backlog and continuing MRR; this comprised 24.4% of the total \$1.51 Billion dollar program. The bonds that supported Prop MM will not be fully paid off until 2029. The debt service for the 09/10 fiscal year is \$99.5 million and the portion of that debt service attributable to MRR is \$24.3 million. During Prop MM the district made increasing annual contributions to continuing MRR work with the goal of reaching \$25 million per year for MRR. Between 1998 and 2009 an average of \$24.2 million per year in combined district annual contribution and Prop MM were expended on MRR. Since fiscal year 2007 the district annual contribution to MRR has been \$25 million.

## **Facility Care Approach**

The following sections of the report contain the description of how the district facilities and capital assets are maintained. This also shows the current distribution of projects in the new policy definitions of Repair and Replacement (RR) and Major Repair and Replacement (MRR) funding categories. Each is defined by the service life of the building system: RR includes building systems having a service life of less than 20 years – exterior paint, flooring, asphalt seal, lighting, irrigation systems, signal systems; MRR includes building systems having service life greater than or equal to 20 years – HVAC systems, doors/windows, storm/sanitary sewer,

electrical distribution. The 2009/2010 MRR/RR plan introduces additional resources for the MRR program funding and implementation – Prop S. PPO coordinates with Prop S, Long Range Facility Master Planning and Instruction Facilities Planning ensuring no scope or schedule overlap for these programs and projects. This ensures MRR/RR projects are not implemented within facilities that are scheduled for program change, capital improvement or replacement.

### **Proposition S**

During initial planning for Prop S, MRR deficiencies were identified at each school facility, which will be implemented as part of whole-site modernization and capital improvement projects. MRR funding within Prop S is \$501 Million and will be expended through the life of the bond program, which is currently projected to last through 2026. The length of the Prop S program funding for MMR (as depicted in the Attachment-B) has been extended from the original 10-year projected execution time frame due to the drop in the district's assessed valuation of real property. As a result of this schedule extension, Prop S identified MRR deficiencies may not be corrected when needed and may require allocated PPO budgets to be re-directed from RR to MRR. PPO will work with Prop S Project Manger's to coordinate completion of needed MMR funded by Prop S, and will work to ensure that new or reconfigured systems installed by Prop S are maintainable systems.

### **Facility Condition Assessment**

As with all good facility maintenance programs, MRR/RR is one of many programs needed to maintain buildings in good working condition. There are various ways to indicate current condition or state of the facilities. One industry standard for indicating the condition of facilities is called the Facility Condition Index (FCI). Another evaluation for facility condition is the facility evaluation component of the California State Williams/School Accountability Score Card (SARC) survey. The Williams/SARC survey rated the district facilities an overall "good". This is the second highest possible rating for the survey with "exceptional" as the highest possible rating. This rating is an indication that the facilities meet the state standards and district policy for the educational environment.

A more rigorous measure for indicating the condition of facilities is called the Facility Condition Index (FCI). It is calculated by dividing the total amount of needed MRR/RR, by the total Current Replacement Value (CRV) of all district facilities; low FCI's mean better facility condition. A July 8, 2008 board report set a goal of achieving s district average FCI of 7% to 5% by 2018 using Prop S to supplement district annual MRR funding. This goal will not be achieve by 2018 due to the decrease in real property values in the City of San Diego and the subsequent rescheduling of Prop S bond sales. Attachment C depicts the projected FCI, representing the average condition of district school facilities that result from this rescheduling of MRR funding; Attachment C shows that the 7% to 5% goal will not be reached until 2025. *Note: The FCI projection in the chart calculates the Repair Replacement funding at \$23 million and \$50 for bond funded MRR for future years. Also, includes that manufacturer recommended maintenance is performed to building components to maintain expected service life of district assets.*

## **Operational Maintenance Programs**

Other programs are Routine/Repair Maintenance, Preventive (Planned) Maintenance (PM) and now to meet the new policy the addition of Repair and Replacement to be funded by the district. Each of these programs is discussed below.

### **-Routine/Repair Maintenance**

Routine/Repair Maintenance is defined as minor repairs to facilities that keep the facility in operational condition. These repairs include responses to breakdowns, normal wear and tear and vandalism. Analysis for these repairs in the 08/09 fiscal year shows PPO responded to 43,085 work orders at a cost of \$13.1 M.

### **-Preventive (Planned) Maintenance (PM)**

Preventive Maintenance is a proactive, cost effective maintenance program designed for system upkeep and to optimize system performance and a means to a reduction of unscheduled repair maintenance calls. The intrinsic value of PM is indicated in the comparison of cost per PM work order, \$278, vs. cost per Routine/Repair work order, \$305. As well as a reduction in per site visit costs, PM lessens the impact upon sites that occurs during unscheduled system downtime and repair. PPO evaluates current PM tasks and seeks additional PM opportunities to ensure maximum return on investment from District assets. Considerations of PM costs vs. equipment replacement costs are integral in the evaluation of proposed PM opportunities. The PM program for fiscal 08/09 completed 9,349 work orders at a cost of \$2.6 M.

### **-Repair and Replacement**

A key component of the district's investment in facilities is a program of repair and replacement of facility systems. RR funds the recurring and timely maintenance work such as painting, seal coating, carpeting, etc. throughout the district. As stated previously, this is the district's commitment to maintaining facilities in good condition and is the recommended annual funding of the RR program.

## **Fiscal year 2008/2009 MRR/RR Plan Status**

The 2008/2009 MRR/RR report to the Board of Education presented a summary of 507 projects to be delivered to 163 District facilities, estimated value \$24.9 M. PPO completed 445 of the 507 projects in FY 08/09 while initiating the remaining 62 projects. Projects not included in the original summary, emergent projects, were also initiated and completed. Expenditures from the \$25M 08/09 MRR/RR budget totaled \$23.7M returning the remaining \$1.3M to the State School Facilities account. The cost to complete projects started in FY 08/09 projects shall be funded by the 2009/2010 MRR/RR budget.

## **Fiscal year 2009/2010 MRR/RR Plan**

The MRR/RR program is best described as the projects of electrical, grounds, plumbing, general (carpentry, paint, flooring, structural), low voltage (fire alarm, data, clocks, audiovisual, voice) and mechanical trades or categories that maintain the district's facilities in good operating

condition. This year's MRR/RR plan contains approximately 502 projects at 161 district sites. Attachment-D and E provide additional detail. The projects when analyzed and placed into the two new policy categories are:

- 1) Repair and Replacement or (RR): These projects affect facility components with a service life of 0 to 20 years and have an estimated value of \$11.1 million dollars.
- 2) Major Repair and Replacement or (MRR): These projects have a facility service life of greater than 20 years and have an estimated value of \$10.0 million.

The MRR/RR plan includes work in these repair categories as described below. These projects were identified through repair history and repair trade reporting, age and condition analysis by planning staff, school site feedback and proper prioritization of all district needs in the MRR/RR category. Analysis of building systems can not always determine system replacement priorities. A portion of the MRR/RR budget remains uncommitted so we may respond to an unforeseen condition while delivering scheduled, planned repairs. Fiscal obligations also are required to fund carry-over projects from the previous year. The table below shows the repair trade category distribution and then descriptions of the trade categories after the table.

Electrical	Grounds	Plumbing	General	Signal Systems	Mechanical	Total
\$1,807,173	\$7,115,968	\$1,580,948	\$9,160,447	\$511,951	\$917,881	\$21,094,368

#### Electrical

Many of these electrical projects are in the areas of lighting, fixture replacement and electrical distribution. Lighting retrofit/upgrades replaces interior and exterior light fixtures and bulbs with more energy efficient technologies. Upgrades may also provide capability to centrally control lighting use within specific areas within a site, gymnasiums as an example. Electrical distribution would cover our "point of connection" from SDG&E to sub panels located throughout the facility and the associated underground/overhead distribution system connecting them.

#### Grounds

This category includes repair or replacement of asphalt paving, concrete and related masonry systems, fencing and gates. Irrigation system upgrades including centralized controls and recreational and playground equipment are included as well.

PPO maintains 21 M square feet of asphalt through an annual plan of seal coating and line-stripping on a 4-year asphalt cycle. This grounds sub-category is predictable and a cost effective method of asset preservation. This year's MRR/RR plans restores and extends the life expectancy of five million square feet of asphalt and will improve the appearance of 47 sites. Planned work is primarily delivered through in-house crews with augmented support by vendors. This year's planned value of asphalt seal and re-strip projects at 47 District facilities \$2.6 M dollars.

## Plumbing

This includes re-pipe work of many types: water line replacement or backflow upgrades, storm water conveyance and related drainage system improvement, sewer line replacement and gas line replacement where identified. Updates to restroom fixtures and drinking fountains are also planned for various sites.

## General

Under the general trade category there are projects in the carpentry area such as door and lock replacements, cabinetry, etc. Roof replacements are in the plan for 09/10 as the backbone of facility and asset preservation as well as plastering and asbestos management of these facilities. Exterior paint is a sub program of the General trade category. The life expectancy of the typical exterior paint system is six to seven years. Through a consistent, proactive exterior paint program associated building components are preserved; damaged components are identified and replace maintaining building integrity as well improving site appearance. The 2009/2010 MRR/RR plan includes painting 24 sites at a value of \$1.3M utilizing in-house crews.

## Low Voltage

Much investment has occurred in the Low Voltage trade through other funding sources such as Proposition MM. Projects in this category include upgrades to fire and intrusion alarm systems, audio/visual systems, master clock/bell systems and intercom systems.

## Mechanical

The district has heating and air conditioning systems needing replacements and upgrades. Sheet metal ductwork, filter work and some gas line replacement occur in these projects. Certain steam systems will be included in the plan for repair and replacement as well as other heating systems.

MRR/RR program is currently funded at \$25 million from the State Schools Facilities fund. \$4.4 million has been identified as Deferred Maintenance. Although the State has announced the suspension of matching funds due to the current fiscal crisis, PPO will continue to identify, categorize and perform work that will qualify for potential future match.

## **Conclusion and Recommendations**

This report has been presented to the standing Independent Citizens Oversight Committee (ICOC) for review and input. The ICOC represents the interests of the citizens the school district serves and ensures the district takes good care of its assets and provides information regarding this needed investment.

This report continues the multiyear transition to improved reporting required by district policy. District staff and consultants continue to work toward complete integration of the MRR with all district facility programs. This work will continue and has provided an improved plan to be presented into the future and within the district policy. The integration of maintenance and modernization occurs in the plan to provide the proper environment for student success. District facilities are rated at an overall "good" by the Williams/SARC surveys occurring last year. This

rating is an indication that the facilities meet the state standards for the educational environment. Moving toward improved facility condition index is a complex task. The district currently has many challenges, one of which is continuing the good stewardship of the largest district asset, the grounds and buildings of the district. This is the place where the educational process occurs and having the process occur in an exceptional environment is the future all district facility and physical plant staff work for each day.

The superintendent recommends that the Board of Education approve the following recommendation:

1. Approve the Major Repair and Replacement/Repair and Replacement (MRR/RR) fiscal year 2009/2010 Plan as presented.

SAN DIEGO UNIFIED SCHOOL DISTRICT  
Office of the Superintendent  
Attachment A

2009 Facilities Inventory

Age	Building Type	Quantity	Square Footage
1940 and older	Perm	43	233,186
1941 to 1950	Perm	93	896,013
1951 to 1960	Perm	444	3,226,344
1961 to 1970	Perm	272	2,148,921
1971 to 1980	Perm	227	2,485,467
1981 to 1990	Perm	48	438,334
1991 to 2000	Perm	136	1,204,090
2001 to 2009	Perm	245	1,786,376
		<b>1,508</b>	<b>12,418,731</b>

Age	Building Type	Quantity	Square Footage
1940 and older	Port	23	23,632
1941 to 1950	Port	47	45,664
1951 to 1960	Port	389	373,448
1961 to 1970	Port	543	527,648
1971 to 1980	Port	46	79,814
1981 to 1990	Port	51	49,220
1991 to 2000	Port	859	813,075
2001 to 2009	Port	50	48,000
		<b>2,008</b>	<b>1,960,501</b>

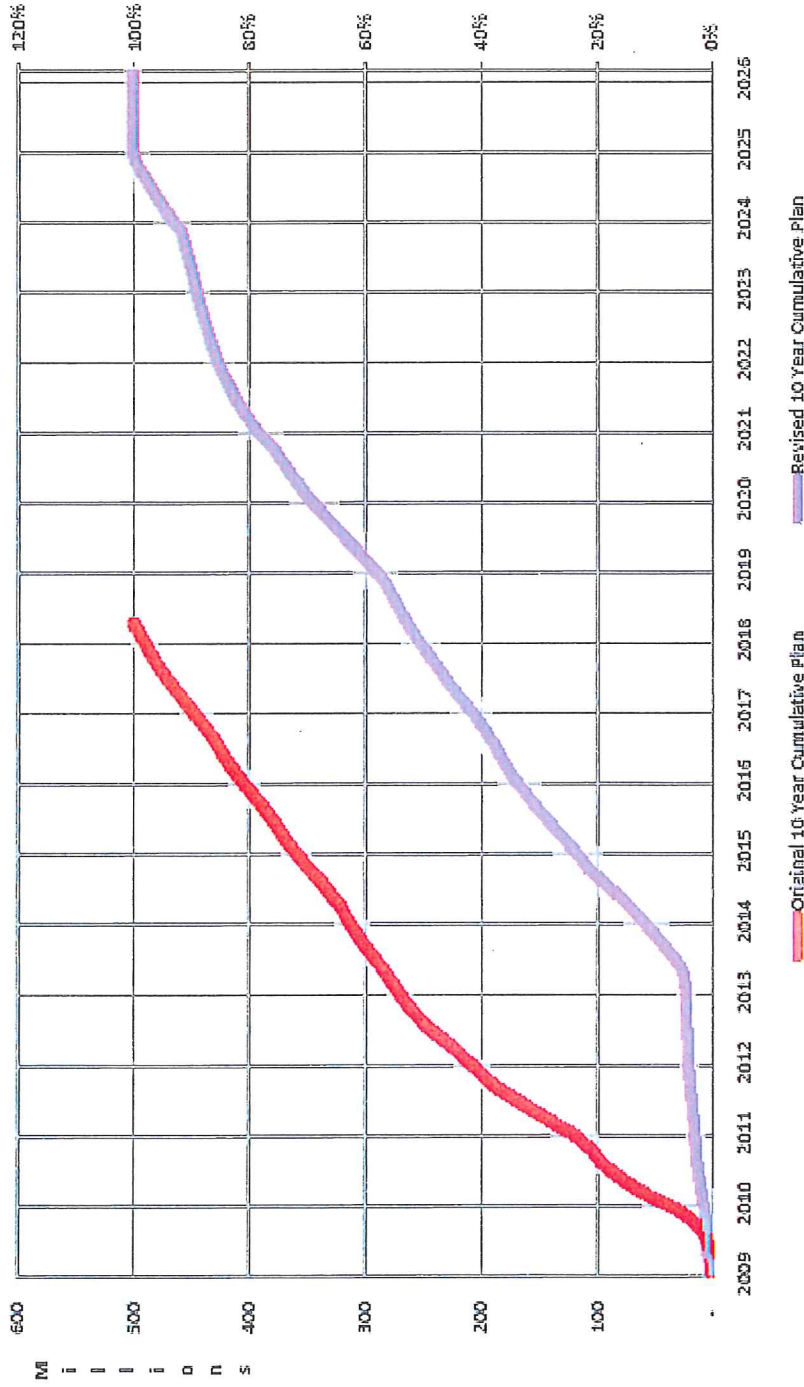
Age	Building Type	Quantity	Square Footage
1940 and older	Relo	35	34,336
1941 to 1950	Relo	1	1,449
1961 to 1970	Relo	1	960
1981 to 1990	Relo	41	43,578
1991 to 2000	Relo	147	219,413
2001 to 2009	Relo	127	109,240
		<b>352</b>	<b>408,976</b>

Age	Building Type	Quantity	Square Footage
1951 to 1960	Trailer	2	1,464
1991 to 2000	Trailer	32	16,508
		<b>34</b>	<b>17,972</b>

Grand Totals		
Perm	<b>1,508</b>	<b>12,418,731</b>
Port	<b>2,008</b>	<b>1,960,501</b>
Relo	<b>352</b>	<b>408,976</b>
Trailer	<b>34</b>	<b>17,972</b>
	<b>3,902</b>	<b>14,806,180</b>

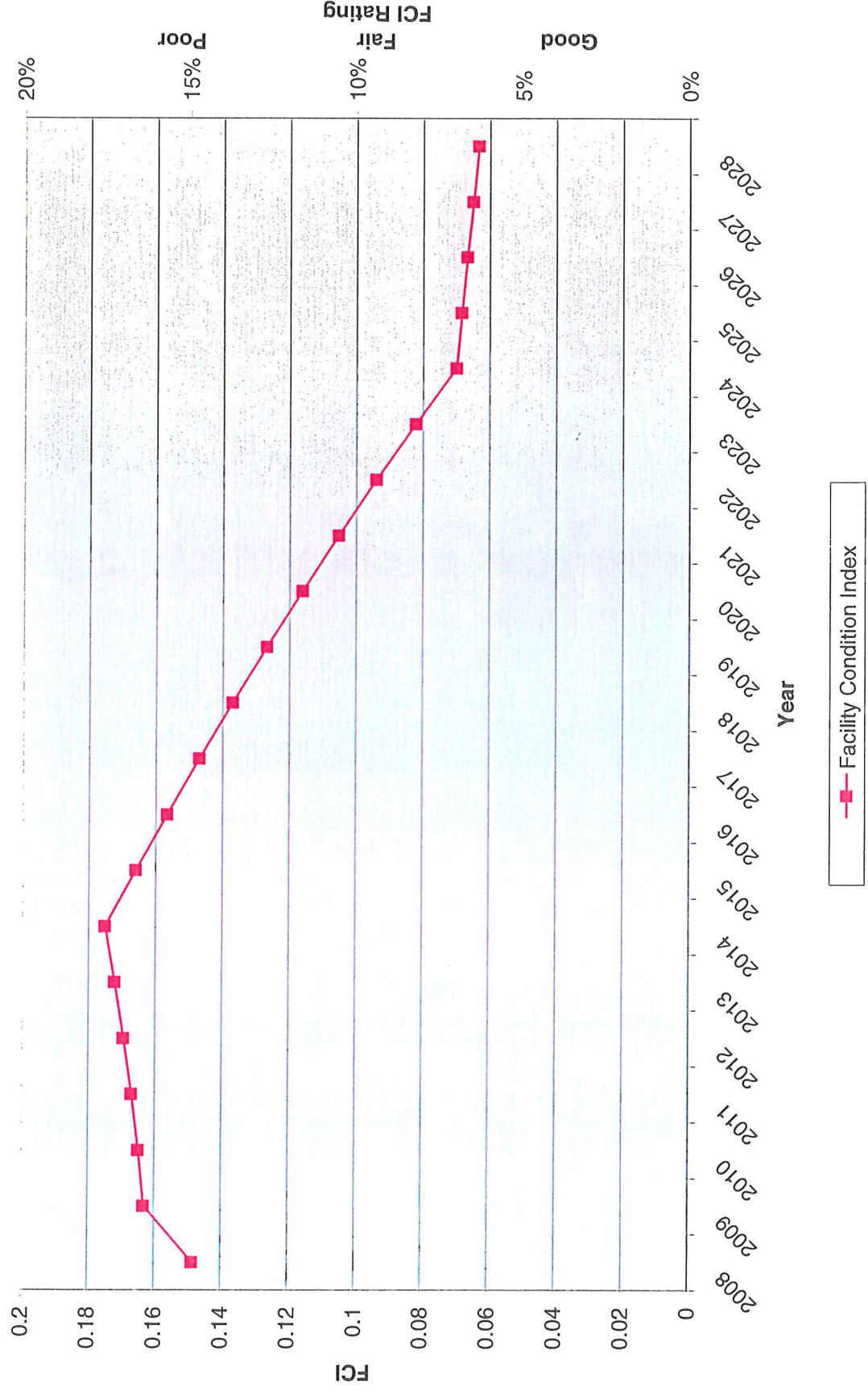
Legend	
Perm	Permanent buildings
Port	District Built Portable Classrooms
Relo	Pre-fabricated Classroom Building
Trailer	Trailer

### Prop. S MRR - \$501M Original Plan Vs. Revised Plan





### Facility Condition Index 20 Year Projection



ATTACHMENT D  
2009-10 MRR  
TRADE GROUP CATEGORY TOTALS

Trade Group	Allocation	Count
Grounds	\$7,115,968	141
General	\$9,160,447	151
HVAC	\$917,881	25
Electrical	\$1,807,173	52
Signal Systems	\$511,951	45
Plumbing	\$1,580,948	87
<b>TOTAL</b>	<b>\$21,094,368</b>	<b>501</b>

These projects to be implemented to 161 District sites.

**Projects Included in trade groups**  
(to include but not limited to:)

Grounds	Asphalt	Electrical	Lighting
	Cement		Fixture Replacement
	Fence		Switch gear
	Heavy Equipment		
	Irrigation		
	Landscape		
	Masonry		
	Recreation Equipment		
General	Asbestos	Signal Systems	Audio Visual
	Carpentry		Fire/Intrusion
	Flooring		Time/Signal
	Locks		
	Paint		
	Plaster		
	Roof		
HVAC	A/C	Plumbing	Fixture Replacement
	Boiler		Repipe
	Air Quality		Storm Drainage
	Filters		Sewer Replacement
	Gas line Replacement		Restroom Rehab.
	Sheet metal		Gas line Replacement
	Steam Systems		
	Heating Systems		

ATTACHMENT E

2009-10 MRR

Repair Categories by Site

SITE	SITE					SITE					SITE										
	GENERAL	HVAC	ELECTRICAL	SIGNAL SYSTEMS	PLUMBING	GENERAL	HVAC	ELECTRICAL	SIGNAL SYSTEMS	PLUMBING	GENERAL	HVAC	ELECTRICAL	SIGNAL SYSTEMS	PLUMBING	GENERAL	HVAC	ELECTRICAL	SIGNAL SYSTEMS	PLUMBING	
A.L.B.A.	X					X		X			X		X			X					
ALCOTT	X				X	CRAWFORD		X			X		X			X					X
ANDERSEN					X	CUBBERLEY		X			X					X					
ANGIER						DAILARD				X						X					
AUDUBON					X	DARNALL				X						X					X
BALBOA	X					DE PORTOLA				X						X					X
BALBOA PP					X	DINGEMAN		X		X						X					X
BANDINI	X					DOYLE		X		X						X					X
BARNARD					X	EB SCRIPPS		X		X						X					X
BAY PARK	X					ED CENTER		X		X						X					X
BAYVIEW CC					X	EMERSON		X								X					X
BAYVIEW TERR	X					ENCANTO							X			X					X
BELL	X				X	ERICSON		X		X						X					X
BENCHLEY/WEI					X	EUCLID		X		X						X					X
BETHUNE	X					FARB		X		X						X					X
BIRD ROCK					X	FIELD										X					X
BIRNEY	X				X	FLETCHER										X					X
BROOKLYN	X				X	FLETCHER CC		X		X						X					X
CABRILLO	X					FLORENCE		X		X						X					X
CARSON					X	FORWARD		X		X						X					X
CARVER	X				X	FRESE		X		X						X					X
CENTRAL						FREMONT		X		X						X					X
CHALLENGER	X					FULTON		X		X						X					X
CHALLENGER					X	GAGE		X		X						X					X
CHAVEZ	X				X	GARFIELD		X		X						X					X
CHEROKEE PT	X					GOMPERS WEST		X		X						X					X
CHOLLAS	X				X	GRANT		X		X						X					X
CLAIREMONT	X				X	GRANTVILLE		X		X						X					X
CLAIREMONT					X	GREEN		X		X						X					X
CLARK					X	HALE		X		X						X					X
CLAY	X				X	HAMILTON		X		X						X					X
CLEVELAND	X				X	HANCOCK		X		X						X					X
COMM HOME ED					X	HARDY		X		X						X					X
						HAWTHORNE		X		X						X					X
						HEARST		X		X						X					X
						HENRY		X		X						X					X
						HENRY		X		X						X					X
						HICKMAN		X		X						X					X
						HOLMES		X		X						X					X
						HOOVER		X		X						X					X
						IMC		X		X						X					X
						JACKSON		X		X						X					X
						JERABEK		X		X						X					X
						JOHNSON		X		X						X					X
						JONES		X		X						X					X
						JUAREZ		X		X						X					X
						KEARNY		X		X						X					X
						KEILLER		X		X						X					X
						KENNEDY CC		X		X						X					X
						KING		X		X						X					X
						KNOX		X		X						X					X
						KROC		X		X						X					X
						LA JOLLA EL		X		X						X					X
						LA JOLLA SR		X		X						X					X
						LAFAYETTE		X		X						X					X
						LEE		X		X						X					X
						LEWIS		X		X						X					X
						LINDA VISTA		X		X						X					X
						LINDBERGH		X		X						X					X
						LOGAN		X		X						X					X
						LONGFELLOW		X		X						X					X
						LV ANNEX		X		X						X					X
						MACDOWELL CP		X		X						X					X
						MADISON		X		X						X					X
						MANN		X		X						X					X
						MARCY		X		X						X					X

**ATTACHMENT E  
2009-10 MRR**

**Repair Categories by Site**

SITE	SITE					SITE					SITE											
	GROUNDS	GENERAL	HVAC	ELECTRICAL	PLUMBING	GROUNDS	GENERAL	HVAC	ELECTRICAL	PLUMBING	GROUNDS	GENERAL	HVAC	ELECTRICAL	PLUMBING	GROUNDS	GENERAL	HVAC	ELECTRICAL	PLUMBING		
MARSHALL	X										X	X									X	
MARSTON	X																					
MARVIN			X	X																		
MASON	X	X	X																			
MCKINLEY		X																				X
MEAD		X																				
MEMORIAL		X																				
MILLER	X																					
MIRA MESA		X		X																		
MIRAMAR RNCH	X		X																			X
MISSION BAY	X	X																				X
MISSION BCH																						
MONTGOMERY	X	X																				
MORSE	X																					X
MUIRLANDS	X																					
NYE			X																			
OAK PARK	X	X	X																			X
PAC BCH EL		X																				
PAC BCH MID		X																				
PARKS			X																			
PENN	X																					
PERRY		X																				
PERSHING		X		X																		
POINT LOMA	X	X	X																			
REVERE																						
RILEY			X																			
ROLANDO PARK		X																				X
ROSS		X																				
ROWAN	X																					
SAN DIEGO		X	X																			
SANDBURG	X			X																		X
SCHWEITZER		X																				X