



THE CITY OF
RANCHO PALOS VERDES

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Infrastructure Report Card



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Revised May 14, 2014



FOREWORD

It is with great pleasure that we present this 2013 Infrastructure Report Card to the City of Rancho Palos Verdes. Infrastructure is designed and maintained by engineers and can be defined as:

The basic physical and organizational structures and facilities (e.g., buildings, roads, and utilities) needed for the operation of a society or enterprise.

This report card is an assessment of the existing condition of infrastructure in the City. It is a snapshot in a moment of time: it does not evaluate community needs and priorities nor is it an in-depth assessment. It is a data-driven, objective, professional review that grades the existing state of the infrastructure on an established scale from Exceptional (A) to Failing (F), based on the American Society of Civil Engineers (ASCE) guidelines and standard criterion.

The assessed infrastructure components in this report are: the City's Public Buildings, Park Sites, Trails, Storm Water System, Sanitary Sewer System, Abalone Cove Assessment District Sewer System, Right of Way and Traffic Devices, and Palos Verdes Drive South Landslide.

This report card suggests improvements to raise the existing infrastructure condition one grade up and to raise its grade to Exceptional ("A"). To calculate the cost estimates associated with these two upgrades, an Infrastructure Management Program (IMP) is recommended. While this report card assesses the current condition of the infrastructure, and provide recommendations to improve it, an IMP will provide a comprehensive cost estimate of the current and future needs on a long term basis, will identify the maintenance level required for each infrastructure component, will identify the resources, the funding shortfalls, and will identify prioritization of projects and expenditures.

This report card reflects a collaborative effort by SA Associates and City staff, including members of Public Works, Traffic/Right-of-Way, Water Quality, Parks and Building Facilities, and Community Development.

In spite of the current state of the economy, it is the responsibility of engineers and our fellow citizens to know the state of our infrastructure and to work towards improving it. As engineers, it is important that we inform our public on the importance of infrastructure maintenance, and encourage our colleagues in the public sector to continue to seek infrastructure funding. We should not underestimate the importance of infrastructure in our lives. It is essential to our way of life, our economy, and our health and wellbeing.

Warmest Regards,

A handwritten signature in black ink, reading "Shahnawaz Ahmad".

Shahnawaz Ahmad, P.E.
President, SA Associates
ASCE Los Angeles Section President, 2003-04
APWA Southern California Chapter President, 2003



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"You and I come by road or rail, but economists travel on infrastructure"

-Margaret Thatcher



SECTION 1: INTRODUCTION

1.1 PURPOSE

The City retained SA Associates to evaluate the condition of the City's existing infrastructure and to prepare an assessment of the existing condition of infrastructure in the City. This Report Card reflects the findings of that analysis. The grades associated with each infrastructure component help the City prioritize its infrastructural needs, help organize its decision making process, and also build a base for the preparation of the City's Infrastructure Management Program. City staff provided support and feedback to SA Associates during the preparation of this report.

1.2 CITY BACKGROUND

The City of Rancho Palos Verdes is located in the southwestern most portion of Los Angeles County. It is bounded on the northwest by the City of Palos Verdes Estates, on the east by the City of Los Angeles (San Pedro), on the north by the Cities of Rolling Hills and Rolling Hills Estates, and on the south and southwest by the Pacific Ocean.

At the close of the 19th Century, the Palos Verdes Peninsula was inhabited solely by a few cattle ranchers and shepherders. The land was mostly covered with nothing more than native vegetation. Then, for a brief period in the early 1900s, the Peninsula enjoyed prosperity not only as a cattle ranch, but also as a rich farming area. Japanese immigrant families farmed the most southern slopes, growing fields of beans, peas and tomatoes, while the manager of the cattle ranch grew barley for hay and grain on the dryer northern slopes. In 1913, Frank A. Vanderlip, president of the National Bank of New York, purchased the 16,000-acre Palos Verdes Peninsula with a vision to develop the "most fashionable and exclusive residential colony" in the nation. Unfortunately, his dream was put on hold after the Stock Market Crash, the Great Depression, and the onset of World War II. None of these setbacks, however, reduced the beauty of the Palos Verdes Peninsula, or its potential desirability as a residential area.

The city boundaries contain approximately 13.6 square miles of area and 7.5 miles of coastline. The reported population in 2000 was 41,145 and this is estimated to have increased to 42,800 in 2009. The population is not expected to increase dramatically as only a small number of vacant areas remain for development. Future developments and/or redevelopments that do occur will likely have limited impact on the overall population. The City is currently revising its General Plan and there is a strong community feeling that the semi-rural nature of the community should be preserved. Today, as a result of the foresight of its founders and residents, the City of Rancho Palos Verdes continues to offer magnificent views, open spaces, clean air, and remains an extremely desirable place to live.



Figure 1.1: City shoreline

The climate of the City is Mediterranean with average annual rainfall of 13.17 inches. The majority of this rainfall occurs during January, February, and March. The steep terrain of the City allows most of the rainfall to drain quickly with little observed surface flooding. The average temperature varies from 67° F in the winter to 80° F in the summer.



1.3 CITY INFRASTRUCTURE

The City owns and/or maintains an extensive infrastructure system consisting of sewers, storm drains, roads, parks, trails, and buildings. For this report, the following infrastructure categories/quantities were considered:

❖ Public Buildings

17 Buildings / 68,819 Total Square Feet

❖ Park Sites

16 Parks / 185.95 Acres

❖ Trails

101 Preserve Trails / 29 Miles

16 Non-Preserve Trails / 3 miles

❖ Storm Water System

4.6 miles of storm water lines; 588 catch basins; 67 manholes; 82 culverts; 51 inlets; 200 trash excluders

❖ Sanitary Sewer System

150 miles of sewer lines; 3,707 manholes; 17 primary lift stations

❖ Abalone Cove Assessment District Sewer System

7.8 miles; 130 manholes; 44 grinder pumps; 4 primary lift stations

❖ Right of Way and Traffic Devices

23,497,303 SF of AC pavement; 3,332,396 SF of concrete sidewalk; 1,084,172 ft. of curb & gutter; 627,435 SF of medians

❖ Palos Verdes Drive South Landslide (and dewatering wells)

1.2 miles of Palos Verdes Drive South exposed to Landslide

The City maintains its infrastructure on a regular basis as part of the City's annual capital improvements. The City evaluates its infrastructure needs and plan for improvements on a priority needs basis.



SECTION 2: GRADES AND GRADING PROCESS

2.1 THE GRADING PROCESS

The grading process is performed as follows:

1. Identify Categories
2. Conduct Visits & Gather Information
3. Identify Grading Criteria
4. Review Available Documents
5. Assign Preliminary Grade for Review by Review Committee
6. Assign Final Grade

The Infrastructure Report Card Working Group (Working Group); comprised of engineers specialized in the assessed infrastructure categories, worked closely with the City staff to identify the categories to be considered in the report card. Site visits, for all categories, were conducted and photos were taken for documentation.

Information about each category was gathered, reviewed and categorized. The information included: master plans, master plan updates, studies, third party consultant reports, City staff reports, City staff presentations, survey plans, rehabilitation plans, City website, City budgets, City capital improvement plan, etc. The documents reviewed for each category are listed at the end of each category section under the heading "Sources".

After many hours of review and analysis, the Working Group assigned a preliminary grade to each category. For the buildings and the parks, individual grades were assigned for each building/park and an overall grade was calculated based on the individual grades.

The assigned grades were based on the reviewed City documents, the reports/studies prepared by third party consultants, and the findings of the site visits.

The grades and the support material were reviewed by the "Review Committee" responsible for the quality assurance/quality control of the Report Card. The review committee included professional engineers specialized in the field of infrastructure. The Review Committee comments were discussed/implemented and the final grades were assigned.

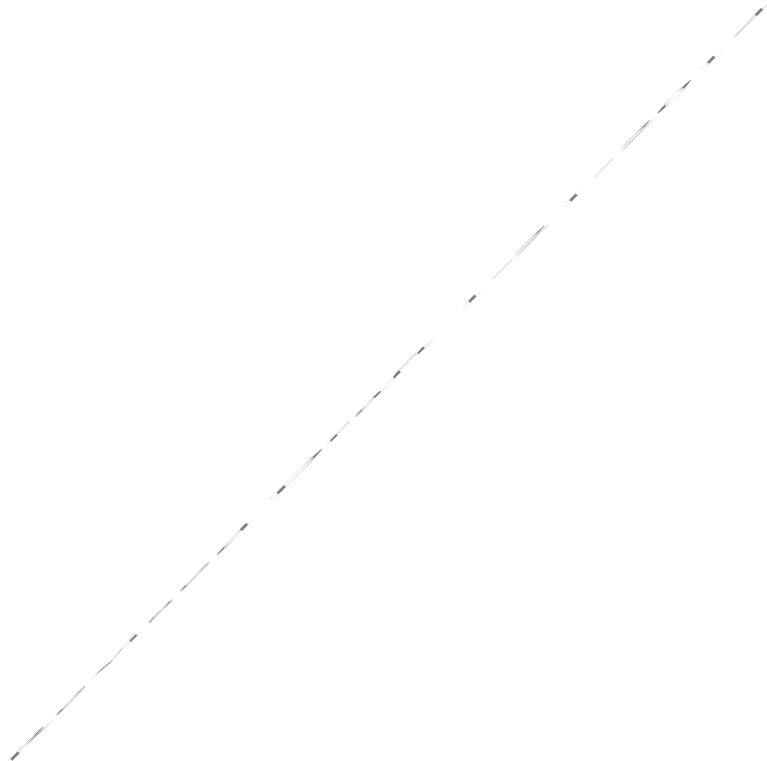
The assessment/grading was conducted for the existing facilities in the City and was based on the facilities current condition. Future plans were not taken into consideration in the grading process. However, they were considered in defining the future recommendations.

2.2 DEFINITION OF THE GRADES

The infrastructure report card utilizes grading criterion that the general public can relate to, similar to the grading used in education. This is the grading criterion used by The American Society of Civil Engineers (ASCE) in infrastructure grading.



Grade	Percentage	Definition
A	90-100%	Exceptional
B	80-89%	Good
C	70-79%	Average
D	41-69%	Poor
F	40% or Lower	Failing





SECTION 3: REPORT CARD SUMMARY

The following are summaries of the different infrastructure components and their associated grades:

Public Buildings: **D**

The City of Rancho Palos Verdes owns a total of 17 public facilities, located within park sites, with a total square footage of 68,819. Most of the public buildings are 25 years old or older and were purchased from school districts or transferred to the City from the federal government. The criteria of evaluation of the public buildings was based on (1) the structural/seismic condition of the building, (2) the condition of exterior and interior finishes, (3) the functionality/operability of the building's systems including electrical, plumbing, heating ventilation and air conditioning (HVAC), and firefighting, (4) safety issues, and (5) sustainability and energy saving. The Overall Grade for the public buildings is D. This shows a great need for retrofitting/renovation of the public buildings.

Park Sites: **B**

The city has 16 parks, 3 recreational active, 12 recreational passive, and 1 institutional educational, with a total acreage of about 186 acres. In addition to housing the City's community centers, the active parks provide sports and recreational facilities; tot lots, playgrounds, tennis courts, baseball diamonds, grassy fields, and picnic areas. Some parks also serve as trailheads for the trails system serving the cities of Rancho Palos Verdes, Rolling Hills, Rolling Hills Estates, and Palos Verdes Estates. Parks are maintained by outside vendors retained by the City under the supervision of the Public Works Department. Other park activities and rentals are managed by the Recreation and Parks Department. The City parks were assessed based on (1) the condition of the available infrastructure, (2) the condition of the existing facilities (tot lots, playgrounds, benches, picnic tables, drinking fountains, and sports facilities), and (3) the assigned parking. The assessment showed more than 70% of the parks in excellent condition. The Overall Grade for the park sites is B. It is important to mention that the current condition of the City parks is the result of the recent improvement/renovation projects. Maintaining this grade requires the continuity of these projects.

Trails: **A**

The City's trails network system includes: (1) 101 Preserve trails about 29 miles in length. The Preserve Trails are with the Palos Verdes Nature Preserve. According to the November 1, 2011 Preserve Management Agreement between the City and the PVPLC, any "trail maintenance" and "trail repair" on unimproved trails in the City Council approved Preserve Trails Plan (PTP) is neither the City's or the PVPLC's obligation, but rather a permissive activity as determined necessary by the PVPLC and as funding becomes available as stated in Exhibit B-3 of the Agreement. 101 Preserve trails about 29 miles in length, within the approximately 1,400 acre Palos Verdes Nature Preserve (Preserve). The Palos Verdes Peninsula Land Conservancy (PVPLC) is responsible for the maintenance and repair of existing unimproved trails in the Preserve while the City is responsible for the construction of new trails and maintenance of improved trails. Preserve trails are generally maintained by volunteer crews. (2) 16 currently operating Non-Preserve Trails, about 3 miles, within the City's open spaces, managed and maintained by the City. The trails are designated for specific users. They are either pedestrian, cyclists, equestrians, a combination of any two, or multipurpose trails designated for the three types of users. The assessment of the trails was based on (1) the available access points and trail markers/signage, (2) available parking, (3) connectivity, and (4) maintenance. The assessment showed the trails in a very good condition. The Overall Grade for the trails is A.

Storm Water System: **C**



The City's storm water system consists of buried pipes, open channels, catch basins, inlets, and outlets strategically placed within the City to drain water from properties and roads. For the City's storm water system, the capacity, condition, operation and maintenance, and environmental sustainability of the system were evaluated for grading purposes. Age is a significant factor in the evaluation of grading since a newer system reflects both a capacity to accept the drainage flows and the condition to carry it properly. Since most of the City's drainage facilities were constructed by the Los Angeles County Department of Public Works prior to incorporation of the City, the City's drainage capacity is lacking in certain areas. However, due to the City's investments, the storm water system provides functionality. With the completion of the McCarroll Canyon system and the San Ramon project currently under construction, the City is making strides to begin managing its many uncontrolled canyons. Thus, overall grade was determined to be C. This shows a need for improving the City's storm water system.

Citywide Sanitary Sewer System: **D**

The City's overall sewer system consists of sewer mainlines, laterals, manholes, lift stations, and grinder pumps. The City's sewer mainlines, which are maintained by the Consolidated Sewer Maintenance District of Los Angeles County, consist mostly of gravity pipelines constructed with vitrified clay pipe (VCP), with some force mains (pressure pipe) that transmit sewage from low elevation points. For the City's sanitary sewer system, the capacity, condition, operation and maintenance, and environmental sustainability of the system were evaluated for grading purposes. For sewer systems, age is a more significant factor in the evaluation of grading than with storm drain systems since the age of sewers typically reflects the capacity to properly transmit flows. A damaged sewer system cannot transmit flows properly, and wastewater must be transmitted and disposed of properly. Also, an older sewer system is likely to reflect inferior construction standards as well as deteriorated pipelines. Despite the age of the City's sewer system, the system provides acceptable functionality. Thus, overall grade was determined to be D. This shows a fairly strong need for improving the City's sewer system.

Abalone Cove Assessment District Sewer System: **D**

The City's Abalone Cove Assessment Sewer System is considered part of the sewer system in the 2009 Master Plan but for billing and maintenance purposes it is considered a separate sewer system. The Abalone Cove Assessment Sewer District System consists of sewer mainlines, laterals, manholes, grinder pumps, and 4 lift stations. For the system, the capacity, condition, operation and maintenance, and environmental sustainability were evaluated for grading purposes. Since the system was constructed in 2001 to help minimize water infiltration into the landslide area and to replace septic systems, the capacity and condition of the system were more heavily weighed. The system is constructed using polyvinyl chloride (PVC) and Polyethylene (PE) pipe; due to the active landslide, however, vitrified clay pipe (VCP) is used in some areas. Despite the threat of landslide, the system currently has good capacity and condition. However, the system is highly vulnerable to land movement and mechanical wear, and requires a high degree of maintenance, and provides slightly less than desired functionality. Thus, the overall grade was determined to be D. This shows a strong need for improving the District sewer system.

Right of Way and Traffic Devices: **A**

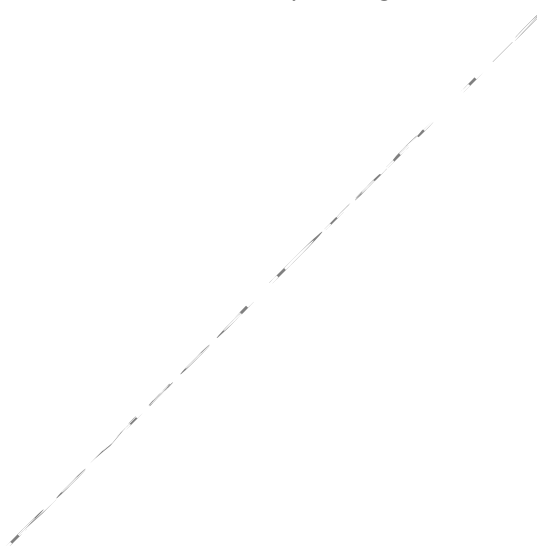
The City's right of way network consists of local streets and arterials, including pavement, medians, curb, gutter, sidewalk, street lights/signals, and right of way landscaping (i.e. median trees). In terms of length, the majority of City roadways consist of local streets (i.e. residential), as local streets comprise nearly 75% of the total length of roadways in the City. Arterials comprise 25% of the total length of roadways in the City. For the City's right of way system, the capacity, condition, operation and maintenance, and environmental sustainability of the system were evaluated for grading purposes. For right of way/street systems, the condition is perhaps the primary aspect of concern to residents and City officials, as deteriorated pavement



poses a threat to the safety of not only motorists, but bicyclists and pedestrians in particular. Due to the City's strong CIP program and excellent operation and maintenance procedures, the City's streets are in great condition and provide exceptional functionality. Thus, the overall grade was determined to be A. This shows that the City's right of way system is in good condition.

Palos Verdes Drive South Landslide: D

An important portion of the City lies within a natural landslide area that is composed of several component landslides. It is mainly located at Palos Verdes Drive South, an important arterial that connects the east part of the city. The landslide affects not only surface streets and buildings, but also other infrastructure as well, including much needed utilities. The City has established mitigation infrastructure and improvements as part of efforts to slow the rate of the landslides and to minimize the likelihood of catastrophic landslide movements. This mitigation infrastructure consists of, grading, and dewatering wells in addition to drainage and sewer systems. The mitigation infrastructure was evaluated based on the capacity of the infrastructure to prevent or slow subsurface land movement, the condition of the infrastructure as it relates to operation and maintenance, and the environmental impacts as it relates to maintaining dwellings, landscapes, and utilities, and protecting the public from harm. For the City's landslide mitigation infrastructure, only the grading, and dewatering wells were evaluated since drainage and sewer infrastructure were evaluated in previous sections. Although the individual mitigation infrastructure is proving to slow landslide movements, it does not fully meet the needs of the City and provides inadequate functionality. Thus, the overall grade was determined to be D. This shows a very strong need for improving the City's landslide mitigation infrastructure.





SECTION 4: WHY SHOULD I BE INTERESTED?

The City's infrastructure benefits all of the City's citizens as well as its visitors. The City's infrastructure is vital to not only the City's economy but also to the Palos Verdes Peninsula as a whole. In addition to its economic importance, the quality of the City's infrastructure also has significant recreational and social benefits, which include community centers, trails, and parks.



Figure 3.1: Seascape Trail at Vicente Bluff Reserve

As with any home, each infrastructure system needs to be maintained and upgraded on a continuous basis. Infrastructure system failures can cause disruptions to our daily lives, trigger slow-downs in economic activity, or even be the cause of injury and death. For example, a roadway failure could cause widespread traffic jams, disrupt access to buildings and hospitals, and could also result in fatal injury. Proper care of our cities, including maintaining our roads, upgrading storm water and sewer systems, and having regularly evaluated and maintained systems, goes a long way. These investments will benefit our present community for generations to come.

This assessment of the current condition of the City's infrastructure is an indicator on how the City is currently doing and how it should act in the future.

This report card is a tool to self-appraisal that will empower the tracking of the current trends and the forecasting of the City's future. This report card will inform the public and the policy makers, will establish community expectations, and will facilitate the policy makers in building the basis for the Infrastructure Management Program.



SECTION 5: CITY'S RECENT INFRASTRUCTURE COSTS

Annual costs needed to maintain and appropriately expand the City's infrastructure are in the tens of millions of dollars. These costs can better be considered as investments. Investment decisions are based on a priority needs basis, through reports by City staff. These decisions are mostly recommended by City staff and reviewed and approved by the City Council. The following are **average** annual investments made to each infrastructure category over the past three years:

- ❖ **Public Buildings**
Average 2010-2013 Expenditures: \$475,000/year
- ❖ **Park Sites**
Average 2010-2013 Expenditures: \$1.4 million/year
- ❖ **Trails**
Average 2010-2013 Expenditures: \$70,000/year
- ❖ **Storm Water System**
Average 2010-2013 Expenditures: \$2.5 million/year
- ❖ **Sanitary Sewer System**
Average 2010-2013 Expenditures: \$90,000/year
- ❖ **Abalone Cove Assessment District Sewer System**
Average 2010-2013 Expenditures: \$77,000/year
- ❖ **Right of Way and Traffic Devices**
Average 2010-2013 Expenditures: \$4 million /year
- ❖ **Palos Verdes Drive South Landslide (and dewatering wells)**
Average 2010-2013 Expenditures: \$700,000/year

These numbers can fluctuate over a given time period from under \$100,000 to over \$5 million based on the needs of the City's infrastructure. The sources of funding for the City's infrastructure come from the City's general fund, CIP reserves, State and federal grants, and inter-agency funding with neighboring cities and the County of Los Angeles.



SECTION 6: PUBLIC BUILDINGS **D**

The City of Rancho Palos Verdes owns a total of 17 public facilities with a total square footage of 68,819. Located within park sites, the public facilities provide gathering spaces for the general public, learning and exploration environments for the youth, and work spaces for public employees, representatives, and volunteers. The maintenance of the public buildings is the responsibility of the Public Works Department. The City's buildings are listed below:

No.	Building	Location	Area Sq. Ft
1	City Hall (Administration & Catalina wing)	Civic Center	17,530
2	Community Development Department	Civic Center	4,604
3	PVNET	Civic Center	3,083
4	Cable TV (CH-33 Studio) Building	Civic Center	1,242
5	Warhead Room / Shop	Civic Center	890
6	Sign Maintenance Building	Civic Center	880
Sub-total Civic Center Buildings			28,229
7	Ladera Linda Community Building	Ladera Linda Park	3,473
8	Ladera Linda Discovery Room	Ladera Linda Park	3,398
9	Ladera Linda Multi-Purpose Room	Ladera Linda Park	3,288
10	Ladera Linda Classroom	Ladera Linda Park	3,538
11	Ladera Linda Restroom	Ladera Linda Park	5,182
Sub-total Ladera Linda Community Center			18,879
12	Pointe Vicente Interpretive Center (PVIC) Museum & Gift Shop	PVIC Park	9,746
13	Fred Hesse Jr. Community Building	Hesse Park	9,040
14	Robert E. Ryan Community Building	Ryan Park	1,725
15	Abalone Cove Building	Abalone Cove Park	700
16	Eastview park (Restrooms)	Eastview park	300
17	Pelican Cove (Fishing Access) Restrooms	Pelican Cove Park	200
Total Area for City Owned Buildings			68,819

Except for PVIC (shown below in **Figure 5.1**), the public buildings are 25 years old or older. Many of the buildings were purchased from school districts or transferred to the City from the federal government. Some of these building were completely renovated like PVIC and Fred Hesse buildings, and only minor improvements have been made to others since their acquisition (such as Ladera Linda buildings and City Hall Buildings).



Figure 5.1: Point Vicente Interpretive Center Museum & Gift Shop

Assessment of City Buildings

The criteria of evaluation of the public buildings was based on:

1. The structural/seismic condition of the building
2. The condition of exterior and interior finishes
3. The functionality/operability of the building's systems including electrical, plumbing, heating ventilation and air conditioning (HVAC), and fire fighting
4. Safety issues
5. Sustainability and energy saving

The compliance with Americans with Disability Act (ADA) requirements was not considered in the evaluation criteria since ADA improvements are scheduled for all City Buildings; however, the cost of these improvements should be considered when calculating the investment needs.

The assessment depended on the reports performed by consultants retained by the City (please refer to "Sources" below for a list of these reports) and the visual inspection performed by the Infrastructure Working Group. The "A" grade was assigned to the newly constructed buildings, those in excellent condition, and the other buildings were rated relative to the "A" building(s), with "F" given to those buildings that are in very poor condition.

The Civic Center and Ladera Linda buildings were mainly evaluated based on (1) the structural/seismic condition especially in the event of an earthquake, (2) the safety risks and effect on productivity caused by the condition/functionality of the building systems.

Final Grade

The Overall Grade for the public buildings is D. The overall grade was calculated as the average of the individual grades of the 17 buildings. **Figure 5.2** below provides the grades of the individual buildings:



Figure 5.1: Grades of City-owned Buildings

Investment Needs

Citizens take pride in their public buildings as they reflect their City's identity. The safety, well-being, quality of life, and economic vitality of the City are tied to the services administered and delivered from these public buildings. Green⁽¹⁾ and energy efficient city hall (similar to other neighbor cities) and community buildings will have its benefits on the local community and economy. State-of-the-art green facilities will ensure safety, increase revenue potential, improve health and productivity of employees, and ensure the anticipated operability of city facilities in seismic/catastrophic events. The City has recently dedicated substantial efforts in increasing energy efficiency in its facilities and has some energy saving projects in its future plans.

To upgrade the public buildings one grade up (from D to C), the city needs to perform retrofitting for some buildings and system replacement for others. This includes the replacement of the mechanical and electrical systems for the City Hall Buildings and Ladera Linda Community Center Buildings, and the retrofitting of Ryan Community Building and Abalone Cove Park Building. The upgrade also includes the necessary ADA Compliance improvements for items identified as the "Potential Safety Hazard" and "Severe" barriers (the most severe) in the City's ADA Assessment Compliance Report.

To upgrade the public buildings to A, the City needs to perform complete retrofitting of the City Hall Buildings and Ladera Linda Community Center Buildings and new solar power system for PVIC and Fred Hesse Buildings. The upgrade shall also include all ADA compliance retrofitting for all buildings.

The cost estimate of the investment needs will be determined in the Infrastructure Management Program.

Although the complete retrofitting for City Hall Buildings⁽²⁾ and Ladera Linda Community Buildings⁽³⁾ will result in modernized energy efficient buildings with an expected useful life of at least 20 years, the inherent constraints of the structure's layout will remain and the area (square footage) will remain the same. Another alternative is the complete replacement of these buildings. This will result in brand new, state-of-the-art green and sustainable civic and community centers, which reflect the city's spirit of environment and habitat preservation, and accommodate the city's future space needs. The replacement cost for the City Hall buildings, and for Ladera Linda community buildings can be estimated in the Infrastructure Management Program.

Funding for the City-owned infrastructure, including streets, parks, sewers, and buildings comes from various



sources; including transfers from the General Fund and restricted funds, and grants from other governmental agencies.

The annual budget for buildings maintenance is in the range of \$500,000. FY13-14 budget is around \$600,000.

Recommendations

1. Develop a comprehensive long term maintenance plan that ensures the continuous maintenance and renovation of the buildings to extend their useful life, enhance their functionality, improve their efficiency, and minimize their impact on the environment
2. Secure funding sources for maintenance, renovation or replacement of existing buildings and construction of new buildings.
3. Perform a cost benefit analysis to decide between replacement or retrofitting for the City Hall Buildings and Ladera Linda Community Buildings.
4. Resume efforts/secure funding towards transferring city buildings into green and sustainable buildings, reflecting the city's spirit of environment and habitat preservation (the City's Green Building Construction Ordinance was passed by the City Council in November 2008)

Sources

- City Hall property Survey plans, 12/5/2007, KDM Meridien
- Modifications to Utilities Plan Site LA-55L-TACT and Administration Facility Plan- Paving, Water System & Diesel Storage (current City Hall site), 1963, Quinton Engineers Ltd.
- City Hall Generator Plans: Electrical, 2/12/2009, Nikolakopoulos and Assoc., Inc., Plumbing: 4/9/2010, The Sullivan Partnership Inc.
- LA Site 55 Cathodic Protection (current City Hall site), 10/4/1968, Fort MacArthur, CA Office of the Post Engineer
- ADA updates at City of RPV City Hall, 2/7/2008, Willdan
- Seismic Hazard Evaluation for RPV Civic Center Buildings, 10/25/2000, Breiholz Qazi Engineering, Inc.
- Community Development & Administration Building Floor Plans, date and preparer name not available on plan
- Civic Center Facilities Assessment for City of RPV, 11/2010, Gonzalez Goodale Architects
- Certified Thermography Reports for Planning Department Building and Ladera Linda Community Center, 3/2010, California IR
- TV Communication & Administration Building Floor Plan, date and preparer name not available on plan
- City of RPV Accessibility Self Evaluation and Transition Plan, 6/4/2013, City Staff Report
- Office Space Planning Plans for Community Development Building, 10/30/2008, John M. Cruikshank Consultants, Inc.
- City Hall Administration & PVNET Annex Floor Plan, 12/1/2008, date and preparer name not available on plan
- Community Development Department Restroom ADA Compliance, 9/29/2010, John M. Cruikshank Consultants, Inc.
- Sustainable Sites Initiative – A Case Study: Rancho Mirage City Hall Undergoes Site Renovation, APWA by David Volz



- Ladera Linda Facility Inspection Report, 6/29/2011, Willdan
- Ladera Linda Facility Preliminary Inspection Report, 2/22/2011, City Staff Report
- Ladera Linda Architectural/MEP/Landscape Plans, 1966-1967, Kistner, Wright & Wright Architects and Engineers
- Ryan Park Restrooms Improvement and Accessibility Compliance, 5/4/2012, Willdan Landscape Architects
- Abalone Cove Building Plans, 6/28/1989, Super Secur MFG. Co.
- Eastview Park Playground & Accessibility Improvements, 2/23/2013, BOA Architecture
- Fisherman's (Pelican Cove) Parking Lot Plans, 9/3/2008, Stantec
- "New Civic Center Financing Options", 6/29/2010, City Staff Report & PowerPoint Presentation
- ADA Assessment Compliance Reports, May 2013, BOA Architecture
- City of Rancho Palos Verdes Budget for Fiscal Year 2013/2014 and appended Capital Improvement Plan

- (1) The City's Green Building Construction Ordinance was passed by the City Council in November 2008
- (2) In 2009, the City Council initiated the creation of a Civic Center Master Plan, however, in 2012 this planning effort was placed on hold. The future of this site and its uses, which must comply with the Program of Utilization for the site unless an amendment is sought, remains undetermined until Master Planning efforts resume. Any changes in land use to the property through the Master Planning efforts would require approval by the Planning Commission and City Council through public hearings along with review and approval of a change, if necessary, to the Program of Utilization by the National Park Service.
- (3) The Ladera Linda Park & Community Center Buildings Replacement concept is comprised of 2 phases: Phase I includes infrastructure, landscaping, and park improvements and Phase 2 covers the buildings.

**SECTION 7: PARK SITES B**

"It is the goal of the City to conserve, protect and enhance its natural resources, beauty and open space for the benefit and enjoyment of its residents and the residents of the entire region. Future development shall recognize the sensitivity of the natural environment and be accomplished in such a manner as to maximize the protection of it." - City of Rancho Palos Verdes General Plan.

The City of Rancho Palos Verdes has a unique interconnected parks, trails and wildlife habitat system. The system has crowned the City an exceptional recreational destination serving the local community and the surrounding cities in and outside the Peninsula. The city has 16 parks, 3 recreational active, 12 recreational passive, and 1 institutional educational with a total acreage of about 186 acres as shown in the exhibit below.

No.	Park Name	Use Designation	Area
1	Abalone Cove Shoreline Park (Upper & Lower Parks)	Recreational Passive	46.84
2	Clovercliff Park	Recreational Passive*	0.17
3	Del Cerro Park	Recreational Passive	4.50
4	Eastview Park	Recreational Passive*	9.90
5	Founders Park (Maintained by Trump)	Recreational Passive	5.21
6	Frank E. Vanderlip Sr. Park	Recreational Passive*	0.48
7	Fred Hesse Jr. Community Park (Upper)	Recreational Active	29.40
8	Fred Hesse Jr. Community Park (Lower)	Recreational Active	
9	Grandview Park	Recreational Passive	18.00
10	Ladera Linda Community Center Park	Institutional Educational	11.00
11	Marilyn Ryan Park (Maintained by Trump)	Recreational Passive*	1.50
12	Martingale Trailhead Park	Recreational Passive*	1.20
13	Pelican Cove Park (Fishing Access)	Recreational Passive	10.50
14	Lower Point Vicente Park (Interpretive Center -PVIC)	Recreational Passive	28.00
15	Upper Point Vicente Park and Civic Center & Rancho Caninos Dog Park	Recreational Passive	8.25
16	Robert E. Ryan Community Park	Recreational Active	11.00
Total Acreage			186.86

*Use Designation proposed as part of the City's General Plan, not yet approved.

In addition to housing the City's community centers, the parks provide sports and recreational facilities; tot lots, playgrounds, tennis courts, baseball diamonds, grassy fields, and picnic areas. The parks also serve as trailheads for the trails system serving the cities of Rancho Palos Verdes, Rolling Hills, Rolling Hills Estates, and Palos Verdes Estates.

The City is the home of stunning scenic ocean views, whale watching, hiking, biking, equestrian activities, hands-on environmental exploration, and picnicking. The City's residents are exceptionally aware of the importance and effect of the open spaces on the quality of life and have given the City's reserves, parks, and



trails a priority along the years. This is translated in Rancho Palos Verdes Coast Vision Plan that (1) established the development and maintenance of community parks and recreational areas as a top priority and (2) outlined new carefully planned projects to enhance the enjoyment of the beautiful coastline and the natural landscape of the peninsula.

The current city document representing the parks system is the Parks Master Plan that was last revised in 1989. With the vision plan and the associated park developments in place, the update of the 1989 City's Parks Master Plan becomes essential. An updated Parks Master Plan will consolidate existing information, accumulate and incorporate related planning efforts, and map data to determine both the existing and desired level of service related to both passive and active recreation in the City.

As part of the implementation of the Coast Vision Plan, the City has two new major park developments on its unfunded CIP plan: The Lower Point Vicente Park Improvement Project (13-acre of the lower portion of PVC) and the Gateway Park Development (a 23-acre site within the City's Landslide Moratorium area). Other major projects are the improvement of Grandview Park and Lower Hesse Park.

Parks are maintained by outside vendors retained by the City under the supervision of the Public Works Department. Other park activities and rentals are managed by the Recreation and Parks Department.



Figure 6.1: Robert E Ryan Community Park

Assessment of Parks

The City parks were assessed based on:

1. The condition of the available infrastructure
2. The condition of the existing facilities (tot lots, playgrounds, benches, picnic tables, drinking fountains, and sports facilities)
3. The assigned parking.

The ADA improvements were not considered in the evaluation criteria as they are scheduled for all City parks; however, they were included in the investment needs. The assessment showed more than 70% of the parks in excellent condition. The "A" grade was assigned to the parks that are in excellent condition, and the other parks were rated relative to the "A" parks.

Note: The assessment of the city parks did not include the building components. The buildings were assessed separately. Refer to Section 6: Public Buildings for assessment of buildings.

Final Grade

The Overall Grade for the parks is B. The overall grade was calculated as the average of the individual grades of the 15 Parks. **Figure 6.2** below provides the grades of the individual parks:

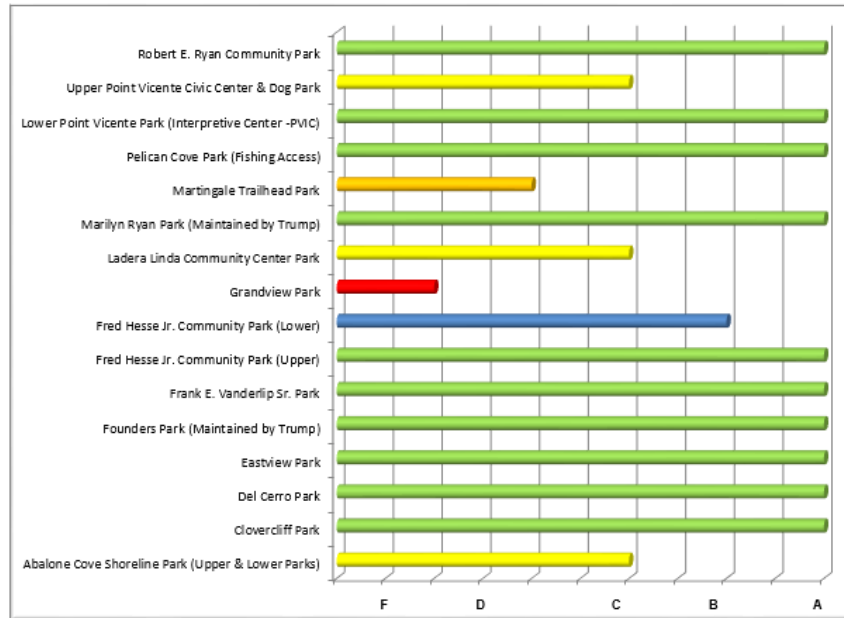


Figure 6.2: Park Grades

It is important to mention that the current very good condition of the City parks is the result of the recent improvement/renovation projects. Maintaining this grade requires the continuity of these projects.

Investment Needs

Expenditure for the maintenance of the parks, trails, and open spaces is about \$1.35M/year, constituting around 5% of the total Primary General Fund expenditure. Although the General Funds cover most of the maintenance requirements, currently, Quimby Development Impact Developer fees are used for construction/acquisition of park and recreation facilities. In addition, county bond money (Measure A Parks Maintenance/ Improvements) is allocated for acquisition and maintenance of open space and park improvements. City Staff expects that allocations for maintenance from these sources will continue to be available through FY18-19, with the fund being closed by FY19-20, after which the City's General Funds will have to cover 100% of the maintenance costs.

Investments will be needed to upgrade the parks system from B to A. This includes Abalone Cove Shoreline Park Parking Improvement; Abalone Cove Shoreline Parking Lot Improvements; Lower Hesse Park Improvement; Hesse Park parking lot resurfacing; Minor improvements to Civic Center park; Ryan Park Parking Lot Improvements; Ladera Linda Park site Improvement; Lower Point Vicente Park Improvements; Grandview Park Improvements; Gateway Park improvements; and all ADA compliance improvements for all parks. ADA Compliance improvements for the "Potential Safety Hazard" and "Severe" barriers (the most severe)

The cost estimate of the investment needs will be determined in the Infrastructure Management Program.



Recommendations

Continuous maintenance, renovation, and development of the parks system, as follows:

1. Secure Consistent Funding: Develop consistent funding streams from all funding sectors to ensure that projects can be implemented and maintained.
 - a. Maintain and increase the allocated budget for the maintenance of the parks. The annual budget for parks maintenance is in the range of \$1.35M and is expected to increase with the increase of the number of active parks in the city.
 - b. Allocate funding for the implementation of the un-funded projects on the CIP plan.
 - c. Allocate funding for the implementation of the City's Vision Plan for the parks.
2. Update the Parks Master Plan (latest revision in 1989). An updated Parks Master Plan will consolidate existing information, accumulate and incorporate related planning efforts, and map data to determine both the existing and desired level of service related to both passive and active recreation in the City.
3. Expand Public Awareness: Broaden and strengthen the public's understanding of natural/cultural values that will help protect our resources for the future. Plan, support, and enhance educational opportunities through nature centers, outdoor education programs, and ranger programs.

Sources

- Parks Master Plan, Revised 1989
- Parks conceptual plans, survey plans, grading plans, improvement plans, irrigation plans, as-built plans, etc. prepared by outsourced consultants for the City.
- ADA Assessment Compliance Reports, May 2013, BOA Architecture
- City of Rancho Palos Verdes Budget for Fiscal Year 2013/2014 and appended Capital Improvement Plan

SECTION 8: TRAILS **A**

The City of Rancho Palos Verdes began planning for a non-motor vehicle transportation circulation system for pedestrians, equestrians, and bicyclists, as early as the adoption of the City's General Plan in 1975. In the early years after the City's formation, it was recognized that trails are an integral part of the City's circulation system and play an important role in contributing to the successful interaction of residential, institutional, commercial, and recreational zoning, while encouraging recreational and fitness opportunities.

The City's trails network system includes:

- ♦ 101 Preserve trails about 29 miles in length. The Preserve Trails are within the Palos Verdes Nature Preserve. According to the November 1, 2011 Preserve Management Agreement between the City and the PVPLC, any "trail maintenance" and "trail repair" on unimproved trails in the City Council approved Preserve Trails Plan (PTP) is neither the City's or the PVPLC's obligation, but rather a permissive activity as determined necessary by the PVPLC and as funding becomes available as stated in Exhibit B-3 of the Agreement.

~~101 Preserve trails about 29 miles in length. The Preserve trails are within the Palos Verdes Nature Preserve. The Palos Verdes Peninsula Land Conservancy (PVPLC) is responsible for maintenance and repair of existing unimproved trails in the Preserve while the City is responsible for the construction of new trails and maintenance of improved trails. Preserve trails are generally maintained by volunteer crews.~~

- ♦ 16 currently operating Non-Preserve Trails, about 3 miles, within designated trail easements throughout the City, managed and maintained by the City.

The trails are designated for specific users. They are either pedestrian, cyclists, equestrians, a combination of any two, or multipurpose trails designated for the three types of users.

The City's current Trails Network Plan is identified by the 1993 Conceptual Trails Plan (CTP), and the 1996 Conceptual Bikeways Plan (CBP). Additionally, the 2012 city council adopted the Preserve Trails Plan (PTP) that identifies the trails for the Palos Verdes Natural Preserve, and the 2008 Coast Vision Plan, which is "a modern vision to unify the City's coast through design," providing a framework of connectivity of public amenities within and adjacent to the City's coastal zone, and identifying the route of the City's segment of the California Coastal Trail. The current trails network plan divides the City into 5 sections or sub regions, as depicted on the project area map shown in **Figure 7.1** below:

The City anticipates the updating and consolidation of all of its existing trails plans and documents into a single, comprehensive Trails Master Plan (TMP) expected to be completed in 2014. At this time, the City expects the TMP to be organized in a similar geographical categorization. The TMP will also include the City's segment of the California Coastal Trail (9.5 miles) that extends the entire length of the City's coastline between the boundary lines of the City of Palos Verdes Estates and the City of Los Angeles.

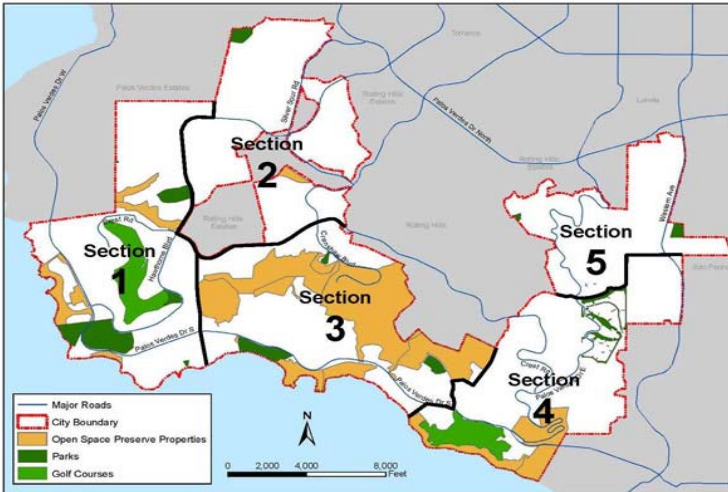


Figure 7.1: Rancho Palos Verdes Trails Master Plan Project Area

Assessment of Trails

The trails network in the City is mainly comprised of natural trails, and the implementation of any new trails will strictly preserve the existing ecosystem. As such, the design criteria physical condition is not an evaluation factor. of the trails with respect to the trails' width, slope and type of surface is not an evaluation factor.

The assessment of the trails was based on:

1. The available access points and trail markers/signage
2. Available parking,
3. Connectivity
4. Maintenance

All trails within the City are accessible can be accessed and are provided with adequate trail markers identifying the trail name, direction arrow, and designated trail uses. Trails also have signage indicating the direction of approved trails which help users recognize approved and unapproved trails. New signs have recently been installed at preserve trail heads explaining the preserve rules.

All trails have designated public parking areas either at trail heads, at public parks, or street parking. Although currently sufficient, the noticed recent increase in the number of trail users is signaling the need for more public parking spaces.

Recent efforts to link the Preserve and Non-Preserve trails has been tremendous and has improved the connectivity of the City's trail system. Connectivity with the trails in neighboring cities in the peninsula is being studied/implemented too.

Trails are well maintained. Vegetation clearance and weed abatement are performed regularly to ensure easy and safe access and use.



Figure 7.2: North Spur Trailhead at Alta Vicente Reserve

Final Grade

The Overall Grade for the trails is A.

Investment Needs

Trails maintenance provides for erosion control, vegetation clearance and weed abatement. Preserve trails are generally maintained by volunteer crews managed by PVPLC. Non-Preserve Trails are maintained by the City. Expenditure for the maintenance of Non-Preserve trails is not available as a separate item. It is included in the overall expenditure for parks, trails, and open spaces which is about \$1.35M (FY13/14 Budget) mostly from General Funds. Currently Quimby Development Impact Developer fees are used for construction or acquisition of park and recreation facilities. In addition, county bond money (Measure A Parks Maintenance/Improvements) is allocated for acquisition and maintenance of open space and park improvements. City Staff expects that allocations for maintenance will continue to be available through FY18-19, with the fund being closed by FY19-20, after which the City's General Funds will have to cover 100% of the maintenance costs.



Figure 7.3: Burma Road Trail at Portuguese Bend Reserve



Apart from trails maintenance, the trails projects outlined in the 2008 Vision Plan and the Preserve Trails Plan were incorporated in the City's CIP Plan attached to the FY13/14 Budget. The CIP plan includes the construction of the Crystal (Preserve) Trail (.12 mile) in the Forrestal Reserve. It also includes the following projects for the Non-Preserve Trails: (1) the Preliminary Planning, Design, and construction for the Bronco, Martingale, and Grayslake Trails, (2) the design and construction of the Salvation Army Trail Improvement Project, (3) The Sunnyside Segment Trail connection, and (4) the construction of trailheads at key entrances to the existing City trail system along with overlooks and vista points within the Vision Plan project area.

These project will contribute to the completion of the City's Trails Network Plan and will improve the connectivity of the trails, the non-preserve trails, in particular.

Allocation of investments will be required to maintain the current "A" grade of the trails.

It was noticed that the currently available plans do not provide enough information on the non-existing trails in the Trails Network Plan. These non-existing trails, when constructed, will improve the connectivity of the trail system. These trails will be identified in the comprehensive Trails Master Plan. Thus a comprehensive Trails Master Plan will be required to calculate the required investment needs for the Infrastructure Management Program (IMP).

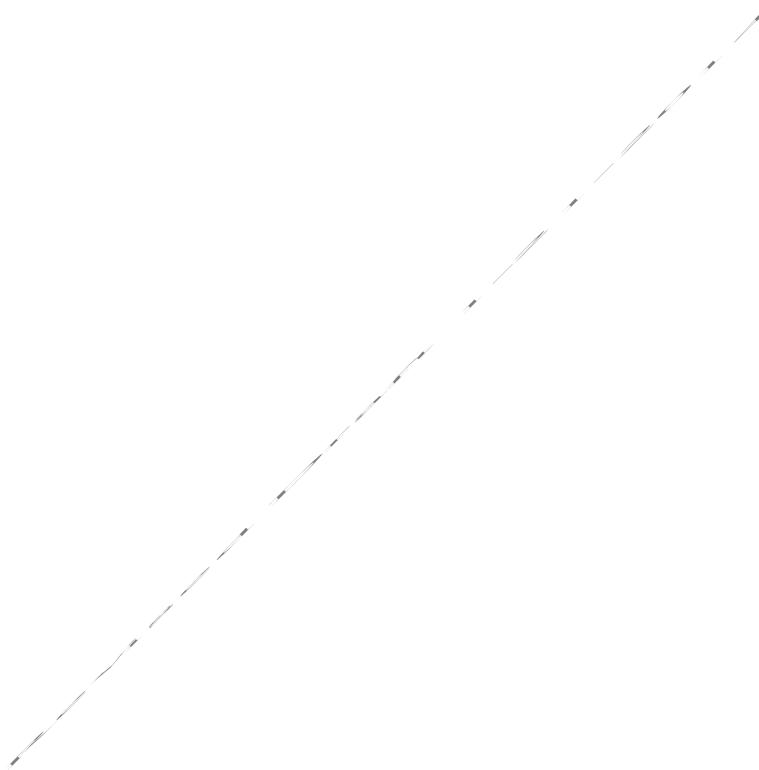
Recommendations

1. Resume the current efforts to prepare the comprehensive Trails Master Plan (anticipated in 2014)
2. Secure Consistent Funding: Develop consistent funding streams from all funding sectors to ensure that projects can be implemented and maintained.
 - a. Maintain and increase the allocated budget for the maintenance of the trails, particularly outside the preserve. The annual requirements for trails maintenance is expected to increase with the increase of the no. of trails and the number of users.
 - b. Allocate funding for the implementation of the un-funded projects on the Trails Master plan.
2. Perform a Parking Assessment Study for the trails system and provide solutions for the anticipated future increase in the need for public parking, particularly adjacent to the Preserve. This may include designating new parking areas or diverting trail users to less-used access points.
3. Perform a Visitor Survey/Study to find out the number of current trail users, the type of use (hike, bike, equestrian), and the expected increase in the number of visitors. Such a study will guide in planning future projects, their order of priority, and the need for new regulations to prevent any unintended consequences that may arise from the increase in the number of users.
4. Expand Public Awareness: Continue and support the efforts in educating people recreationally on how to use the City's trails to help ensure that sensitive areas are maintained in a thriving state.



Sources

- 1993 Conceptual Trails Plan
- 1996 Conceptual Bikeways Plan
- 2008 Preserve Trails Plan (PTP)& Oct 2012 adopted amendment
- 2008 Coast Vision Plan
- City General Plan – Conservation and Open Spaces Element
- 2008 City Council Six Month Review for Trails at Portuguese Bend Reserve
- 2012 PVPLC Visitor Use Survey-Portuguese Bend Reserve
- 2013 Council Adopted PUMP Document
- City of Rancho Palos Verdes Budget for Fiscal Year 2013/2014 and appended Capital Improvement Plan





SECTION 9: STORM WATER SYSTEM **C**

The City's landscape consists of a diverse topography that consists of undeveloped hilly terrain and canyons. As a result, the City is more vulnerable to flooding from nearby canyons that carry runoff during rainstorms. To protect property and loss of life, the City's storm drain system has been carefully designed to capture the maximum amount of storm water through numerous inlets, including the newly constructed McCarrell Canyon Storm Drain inlet shown below in **Figure 8.1**:



Figure 8.1: McCarrell Canyon Storm Drain Inlet North of PVD South

Due to the City's hilly terrain, the City's drainage system utilizes the natural landscape of the City to the extent possible, as underground drains discharge water into adjacent canyons and creeks, or carry it to man-made discharge structures. The City's storm water ultimately discharges into the ocean, in one of eight natural or man-made discharge points (see **Figure 8.2**). As a result of utilizing the City's natural landscape, however, City staff is faced with challenges of having to maintain the City's aesthetic quality while preventing debris accumulation from clogging drain inlets.

Assessment of Storm water System

As mentioned previously, the City has a diverse, hilly terrain. The terrain varies from elevations at sea level to over 1,400 feet above sea level. Due to this diverse topography, the City's storm drain system is divided up into six separate drainage sub-basins, based on the natural characteristics of the terrain and the natural direction of runoff flows for the areas. The drainage sub-basins include the following:

Drainage Area	Area (ac)
Los Angeles Drainage Area	2820
Ocean South Drainage Area	3330
Ocean West Drainage Area	710
Palos Verdes Estates West Drainage Area	1100
Palos Verdes Estates North Drainage Area	450
Rolling Hills Estates Drainage Area	500
Total	8910

Of the sub-basins, the Ocean South Drainage Sub-basin is the largest, consisting of over 3,300 acres and nearly the majority of the City's coastline. The City's landslide area is also located within the Ocean South Drainage Sub-basin. Palos Verdes Drive South (PVDS) is the major arterial street that transverses the Ocean South Drainage Sub-basin. The Ocean South Drainage Sub-basin is also the only area of that contains undeveloped land (that is not marked as reserve land), including the Portuguese Bend area north of PVDS. Every other drainage sub-basin is nearly fully developed with a significant drainage infrastructure network.

With regard to man-made infrastructure, the City's storm drain system consists of inlets, pipes, manholes, and discharge structures. Storm drain pipes consist of reinforced concrete pipe (RCP), and corrugated metal pipe (CMP). Overall, the condition and capacity of the City's storm drain infrastructure is consistent throughout each drainage sub-basin. According to the City's records, there are over 4.6 miles of storm drain lines, 82 culverts, along with a multitude of inlets, catch basins, and manholes. A significant portion of the City's storm drain infrastructure lies within the Ocean South Drainage Area, including a number of culverts that cross PVDS. Since a number of these culverts are also located within the City's landslide area, the culverts are vulnerable to damage from severe landslides that result from heavy storms. The damage can also be compounded when the culverts become clogged with natural debris from the surrounding landscape which gets washed down during rainstorm periods. This could result in flooding which increases the potential for significant landslide activity to occur. To prevent flooding, the City's goal is to ensure that the storm drain pipe network drains stormwater away from developed areas and into one of eight outlets, as shown in **Figure 8.2** below:



Figure 8.2: Outlet Structure to Ocean in Ocean West Drainage Area

As part of the City's goal to prevent flooding, the City is continually in the process of maintaining its existing infrastructure and improving it by adding additional infrastructure. Maintenance typically includes repairing and/or replacing damaged pipe, removing debris, and modifying existing. New improvements vary from small residential storm drains to large, multi-million dollar projects such as the under-construction San-Ramon Canyon Project just north of PVDS.

After reviewing several documents related to its storm water infrastructure, and visiting several locations, including those in **Figure 8.1** and **Figure 8.2**, the City's storm water system was evaluated on following three criteria:

1. The capacity of storm water infrastructure as it relates to flood prevention
2. The structural condition of storm water infrastructure as it relates to operation and maintenance



3. The environmental sustainability of storm water infrastructure as it relates to preserving the natural landscape and wildlife when operating, maintaining, and improving stormwater infrastructure.

Final Grade

After looking at the three grading criteria categories, it was determined that the City had good capacity to transmit storm water flows, average structural condition with appropriate operation and maintenance, and exceptional environmental sustainability. The weight of these three criteria was then weighed as to the overall level of importance of the system. Overall, the City's storm water system earned a grade of C.

Recommendations

Based on the assessment and grade of the City's storm water infrastructure, we recommend the following actions:

- **Maintain a strong CIP program**
A strong CIP program adds new infrastructure and also replaces existing failing infrastructure.
- **Renew Rates**
The City currently charges a fee to help fund its storm water system. This fee will expire at the end of fiscal year 15-16. As a result of aging infrastructure and rising construction costs, the City and its citizens will benefit from a more substantial storm water budget resulting from renewal of the rates.
- **Utilize Natural Drainage Patterns**
Thus far, the City has done a terrific job of utilizing natural drainage canyons and channels as opposed to pipes and concrete channels. The City would benefit by continued use of natural landscapes to keep the costs associated with constructing new facilities low, when possible.
- **Install debris reduction methods**
Debris reduction methods may include the use of grouted rip-rap, where possible, in the place of loose rock and gravel.
- **Maintain proper maintenance/cleaning**
Strong maintenance ensures properly working storm drains and the protection of property.
- **Inspect 100% of known Storm Drain System**

Sources

This report summary for the City's storm water system has been determined as a result of the following sources of data:

- 2004 Master Plan Update
- CIP Priority Lists
- GIS Maps
- Current GIS Spreadsheet Data
- Meetings with City Staff
- Field Analysis

SECTION 10: CITYWIDE SANITARY SEWER SYSTEM **D**

The City's landscape consists of developed land to the extent practical, and the majority of the development in the City consists of single family residential homes. This results in the need for an extensive sewer system that has the capacity to properly transmit wastewater flows. Due to the City's hilly terrain, this results in the need for a carefully designed sewer system that utilizes the natural landscape of the City to the extent practical, in order to avoid additional infrastructure which can add to operation and maintenance costs and lower the reliability of the system during power outages or equipment malfunctions. **Figures 9.1 and 9.2** show two of the City's wastewater lift (pumping) stations:



Figure 9.1: Laurel Drive Sewer Station

Assessment of Sanitary Sewer System

As mentioned previously, the City has a diverse, hilly terrain. The terrain varies from elevations at sea level to over 1,400 feet above sea level. As a result, the City has to utilize a combination of gravity pipes, lift stations, and pressurized force mains. With regard to its sanitary sewer infrastructure, there are over 150 miles of sewer pipelines, 17 lift stations, 44 grinder pumps, and 3,707 manholes. Sewer pipes consist primarily of vitrified clay pipe (VCP), with some plastic pipe, along with a few other materials. Due to the age of the City's sewer system, the majority of its pipe (VCP) was installed without gaskets, as the prevailing theory was that additional groundwater that flowed into the pipes was good for cleaning and flushing of the pipes.



Figure 9.2: Calle Entradero Sewer Station

As part of the City's goal to maintain a properly working sewer system and to protect the public, the City is continually in the process of maintaining its existing infrastructure and improving it by adding additional infrastructure. The LA County Department of Public Works provides maintenance for the City's sewer system. Maintenance typically includes repairing damaged pipe, repairing lift stations, removing debris from pipes, and repairing manholes. New improvements vary from pipeline replacement to lift station replacement.

After reviewing several documents related to its sewer infrastructure, the City's sewer system was evaluated on following three criteria:

1. The capacity of sewer infrastructure as it relates to transmission of wastewater flows (both gravity pipes and pressurized force mains).
2. The structural condition of sewer infrastructure as it relates to operation and maintenance.
3. The environmental sustainability of sewer infrastructure as it relates to ensuring sanitary conditions and an aesthetic City landscape.

It is important to note that the City has identified, through the 2009 Sewer Master Plan, areas that appear to be under capacity and some of these areas have been identified and funded in the City's CIP which will include further investigation and upsizing if appropriate. The costs cited for CIP related projects per the 2009 Sewer Master Plan Update could be less than indicated if the future investigations determine the existing capacity is sufficient. Additionally the use of consultants would likely be beneficial in working with Los Angeles County Consolidated Sewer Maintenance District to further improve the overall grade of the system. Other costs associated with upgrading the system to improve the grades are the responsibility of Los Angeles County Consolidated Sewer Maintenance District and were therefore not included with the costs presented herein.

Final Grade

After looking at the three grading criteria categories, it was determined that the City had good capacity to transmit existing wastewater flows (both gravity and pressurized force mains), below average structural condition with appropriate operation and maintenance, and a good safety/sanitary protection. The weight of these three criteria was then weighed as to the overall level of importance of the system. Overall, the City's wastewater system earned a grade of a D.



Recommendations

Based on the assessment and grade of the City's sewer infrastructure, we recommend the following actions:

- **Maintain a strong CIP program**
A strong CIP program adds new infrastructure and also replaces existing failing infrastructure.
- **Establish a sewer user fee rate**
The County currently charges a fee to help fund maintenance of the sanitary sewer system. However this fee is not sufficient for capital improvements or capacity increases.
- **Maintain proper maintenance**
Strong maintenance ensures properly working lift stations, sewer mains, and the protection of property and the public.

Sources

This report summary and the grade assigned for the City's sewer system has been determined as a result of the following sources of data:

- 2009 Master Plan Update
- 2009 County Condition Assessment
- Meetings with City Staff
- Field Analysis



SECTION 11: ABALONE COVE ASSESSMENT DISTRICT SEWER SYSTEM **D**

The Abalone Cove Assessment District (District) is a moderately developed portion of City land that is comprised mostly of single family residential homes, along with one church building. The District development is located in the heart of the landslide area and experiences a slow but continuous land movement. As a result, the District requires a special kind of sewer system that can maximize reliability while minimizing maintenance due to ground movement. The District also requires a system that fits its hilly terrain. **Figure 10.1** below shows the Abalone Cove landscape:



Figure 10.1: Abalone Cove/Portuguese Bend Reserve

Assessment of Abalone Cove Sewer System

As mentioned previously, the District, as well as the City overall, has a diverse, hilly terrain. The terrain varies from elevations at sea level to over 1,400 feet above sea level. As a result, the District has to utilize a combination of gravity pipes, grinder pumps, low-pressure sewer mains, lift stations, and high pressurized force mains. According to the 2009 Master Plan, the District's system was installed in 2001 to replace septic systems in landslide areas. There are 130 manholes, 1 diversion structure, approximately 19,000 linear feet of gravity pipeline, 19,615 linear feet of low pressure pipe, and 2,505 linear feet of force main. Overall, there are 44 grinder pumps in the District, with 41 of them serving single family homes and 3 duplex grinder pumps serving two or more residences. There are 4 lift stations serving the District, one of which is the Abalone Cove Shoreline Park Lift Station shown in **Figure 10.2** below:



Figure 10.2: Abalone Cove Shoreline Park Sewer Lift Station

Since the District is prone to landslide, the City is continually in the process of maintaining its existing infrastructure and improving it by adding additional infrastructure. Maintenance typically includes repairing damaged pipe, repairing lift stations, grinder pumps, removing debris from pipes, and repairing manholes. New improvements vary from pipeline replacement to lift station replacement. With the Abalone Cove Assessment District, this is all the more important, due to the presence of multiple grinder pumps and low pressure mains that use galvanized transmission lines, as well as the potential for landslide.

After reviewing several documents related to its sewer infrastructure, the District's sewer system was evaluated on following three criteria:

1. The capacity of sewer infrastructure as it relates to transmission of wastewater flows (both gravity pipes and pressurized force mains).
2. The structural condition of sewer infrastructure as it relates to operation and maintenance.
3. The environmental sustainability of sewer infrastructure as it relates to ensuring sanitary conditions and an aesthetic City landscape.

Final Grade

After looking at the three grading criteria categories, it was determined that the District had good capacity to transmit **existing** wastewater flows (both gravity and pressurized force mains), below average structural condition with appropriate operation and maintenance, and a good safety/sanitary protection. The weight of these three criteria was then weighed as to the overall level of importance of the system. Overall, the Abalone Cove Assessment District's wastewater system earned a grade of D.

Recommendations

Based on the assessment and grade of the City's sewer infrastructure, we recommend the following actions:

- **Maintain a strong CIP program**
A strong CIP program adds new infrastructure and also replaces existing failing infrastructure.
- **Increase Rates**
The City currently charges a fee from District properties to help fund the District's sanitary sewer



system. Even though the City subsidizes part of the maintenance cost, the budget is not sufficient for required maintenance and capital improvements. As a result of high maintenance and replacement costs due to landslide activity, the District and its citizens will benefit from a more substantial sanitary sewer budget resulting from an increased rate.

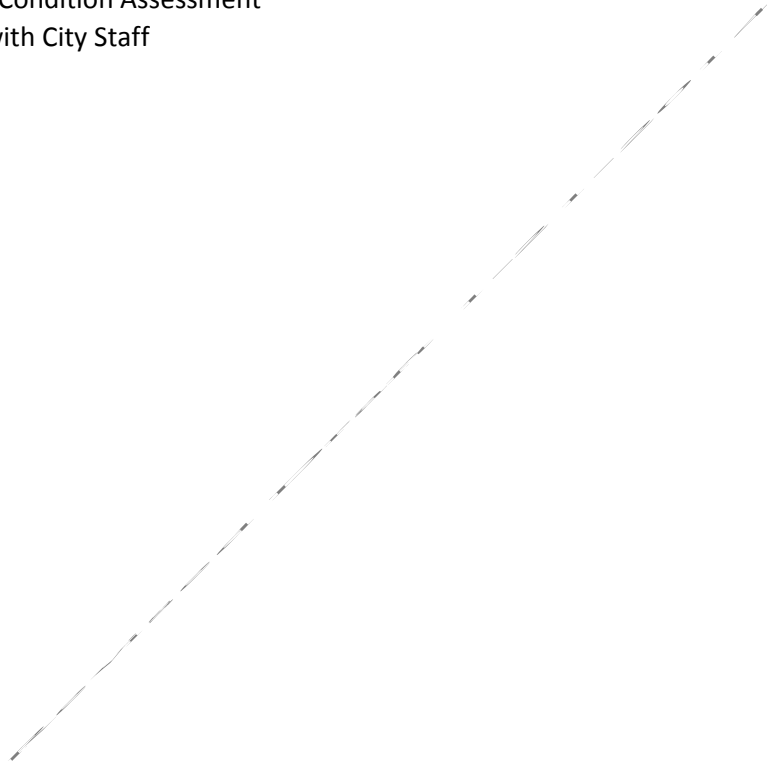
- **Maintain proper maintenance**

Strong maintenance ensures properly working lift stations, sewer mains, and the protection of property and the public.

Sources

This report summary and the grade assigned for the City's sewer system has been determined as a result of the following:

- 2009 Master Plan Update
- 2009 County Condition Assessment
- Discussions with City Staff
- Field Analysis



SECTION 12: RIGHT OF WAY & TRAFFIC DEVICES **A**

The City maintains a right of way network that consists of over 142 miles of local streets and major arterials. Due to the demographics of the City, local streets comprise the majority of the City's roadways at approximately 75% of the overall length or 106 miles. All of the City's roadways consist of asphalt-concrete (AC), with over 23 million square feet of AC pavement. In addition to the road network, the City also maintains traffic signals, safety lights, and flashers. The City's right of way network serves both motorists as well as bicyclists and pedestrians with nearly all major arterials consisting of a sidewalk and bike lanes. **Figure 11.1** below provides a sample of the condition of the City's streets.



Figure 11.1: Crest Rd west of Crenshaw Blvd looking southwest

In 2009, the City hired a consultant to prepare a Pavement Management System (PMS) report that provided a summary, inventory, and breakdown of the condition of the City's streets. The 2009 PMS was prepared as a means to guide planning efforts to maintain the City's large capital investment in streets. The main function of the PMS lies in the implementation of capital improvements such that every dollar spent is maximized towards extending the lifespan of the street network. The 2013 PMS update is currently being prepared and is expected to be completed by March 2014.

Assessment of City Right of Way and Traffic Devices

Due to the City's hilly terrain, major arterials are not arranged in a typical North/South grid-like manner, but rather change direction as they traverse the City's landscape. **Figure 11.2** below illustrates this.



Figure 11.2: Hawthorne Blvd looking northwest

Oftentimes, the City's major arterials do not provide direct access to destinations. There are also no freeways or highways located in the City. However, travel access restrictions are offset by the natural beauty of the City and the man-made landscape improvements along the City's streets, and the City is well known for its accommodating environment to all commuters, including cyclists, equestrians, and pedestrians. Nearly all of the City's major arterials provide bike lanes for cyclists. The City's bike lanes are categorized into four different classes of bike lanes, as classified by the City's Conceptual Bikeways Plan (Plan), adopted in January of 1990 and revised in October of 1996. The Plan classifies bikeways as either Class I, Class I/Off-Road, Class II, or Class III. The Plan's purpose is to identify the bikeway's opportunities with the community and to implement new bikeways into development projects and into the City's public trails network.

One major factor that makes the City's streets so appealing to both motorists and cyclists is the condition of the pavement, not only on major arterials but throughout the City's streets as whole. The 2009 Pavement Management System (PMS) revealed that the City's streets received an overall score of 84.5 on the Pavement Condition Index (PCI) and 95.3 on the Structural Index (SI), while arterials received a score of 76.8 on the PCI index and 90.8 on the SI index. The PCI and SI indexes focus on different aspects of pavement conditions. Residential streets received a score of 87.6 on the PCI Index and a score of 97.1 on the SI index. The 2013 PMS update revealed that the City's streets received an overall score of 82 on the PCI index. PCIs greater than 86 are considered to be "very good" and SIs greater than 90 are considered to be "good". Figure 11.2 below shows a sample condition of residential streets:



Figure 11.3: Beach View Drive Looking East

With regard to vehicular traffic conditions, the City does experience some moderate to high traffic volumes



which results in a low Level of Service (LOS) for major arterials. A recent Traffic Study Report conducted in 2011-2012 revealed that the current traffic conditions in certain intersections of Palos Verdes Drive South and Hawthorne Boulevard resulted in a LOS ranging from A to F, with F being a low level of service with traffic delays. The Traffic Study Report was prepared mainly to identify traffic impacts associated with a development project in the Abalone Cove area known as the Annenberg Project. Despite the low LOS associated with certain intersections, the City does look for new ways to improve traffic conditions, and overall traffic conditions are good throughout the City.

With regard to pedestrian traffic, the City does have an annual sidewalk maintenance program, with an annual budget of \$140,000. The City routinely looks for ways to improve sidewalk conditions throughout the City, and sidewalk conditions were noted to be in great condition throughout the City.

After reviewing several documents related to the City's right of way and traffic devices, the City's right of way and traffic devices were evaluated on following three criteria:

1. The capacity of infrastructure as it relates to accommodating vehicular, bicycle, equestrian, and pedestrian traffic flows
2. The structural condition of infrastructure as it relates to drive-ability, ride-ability, walk-ability, safety, and also as it relates to operation and maintenance costs and efforts.
3. The environmental condition of infrastructure as it relates to promoting recreation, an aesthetic environment, and preserving nature.

Final Grade

After looking at the three grading criteria categories, it was determined that the City had good capacity to accommodate traffic flows, good structural conditions of pavement and sidewalk, and excellent environmental conditions. The weight of these three criteria was then weighed as to the overall level of importance of the system. Overall, the City's traffic and right of way network earned a grade of A.

Recommendations

Based on the assessment and grade of the City's right of way infrastructure, we recommend the following actions:

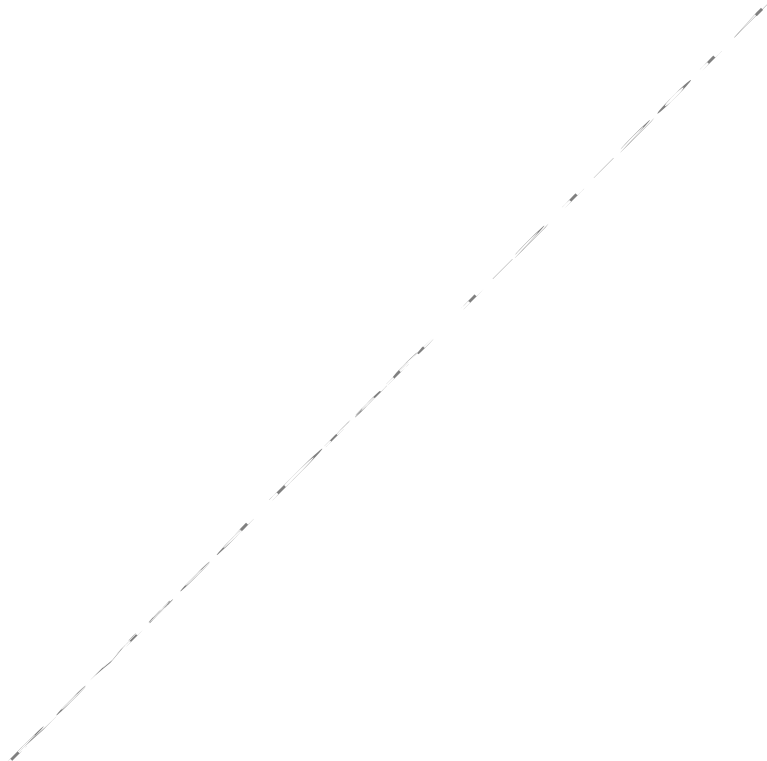
- **Maintain a strong CIP program**
A strong CIP program adds new infrastructure and also replaces existing failing infrastructure.
- **Continue to Seek and Obtain Funding Sources**
The City's existing funding sources, although adequate for routine maintenance, may need to be supplemented to implement larger improvement projects.
- **Maintain proper maintenance**
Strong maintenance ensures excellent pavement conditions, pedestrian access, and the protection of property and the public.

Sources

This report summary and the grade assigned for the City's right of way system has been determined as a result of the following sources of data:



- 2011-2012 Traffic Study
- 2008 Neighborhood Traffic Calming Program
- 1996 Conceptual Bikeways Plan
- 2009 Pavement Management System Report
- Discussions with City Staff
- Field Analysis



SECTION 13: PALOS VERDES DRIVE SOUTH LANDSLIDE **D**

A significant portion of the City lies within a natural landslide area that is composed of several component landslides. Overall, these landslides move southerly towards the ocean into the Abalone Cove, Sacred Cove, and Portuguese Bend shorelines. Approximately 1,000 acres, or 12% of the City's 13.6 square mile limits, are affected by landslide. The landslide affects not only surface streets and buildings, but also other infrastructure as well, including below grade utilities. **Figure 12.1** below shows part of the City's landscape that is located within the landslide region:



Figure 12.1: Palos Verdes Drive South along Landslide Area

Assessment of the Landslide and Landslide Infrastructure

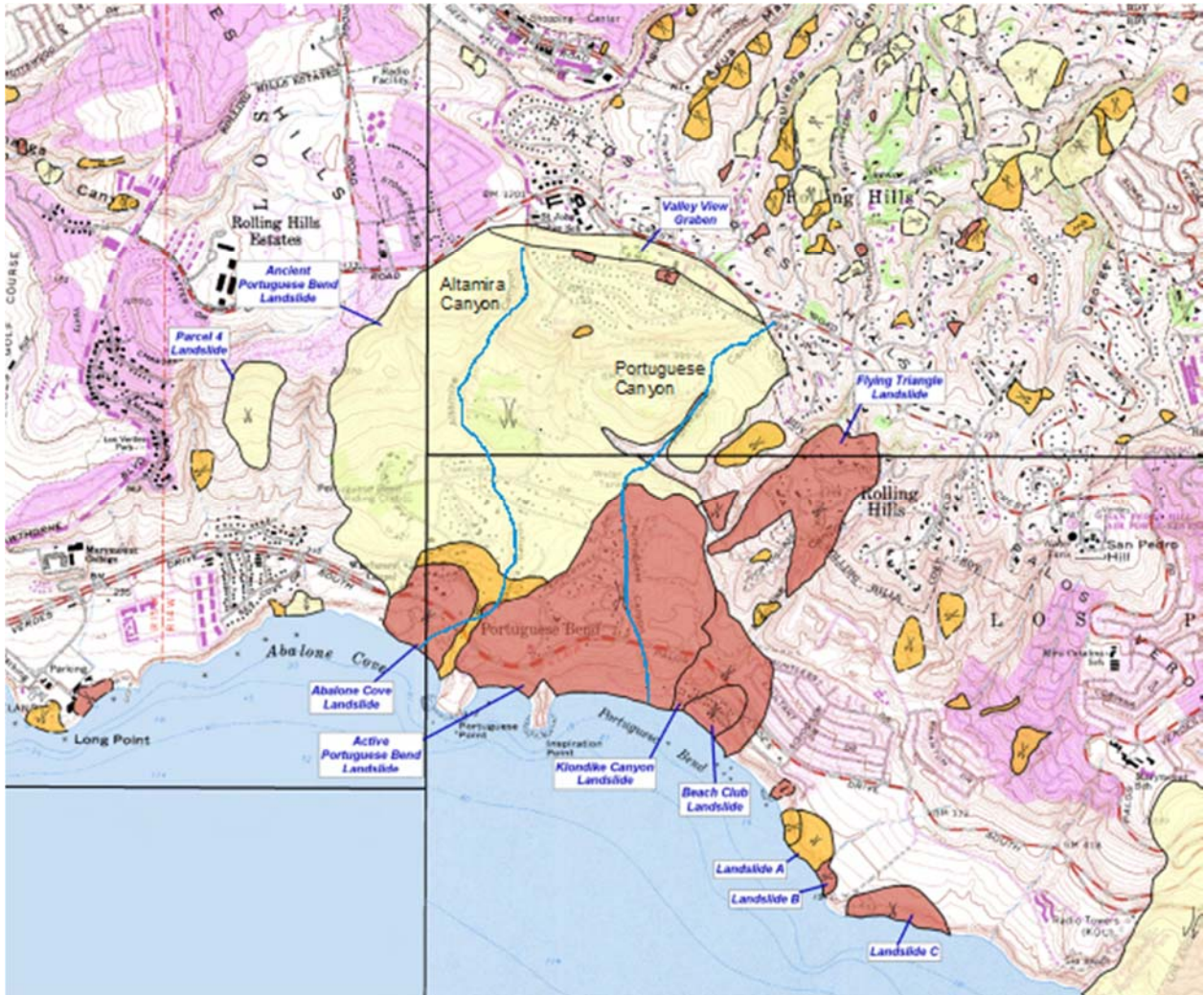
There are over a dozen landslides that make up what is known as the City's landslide area along Palos Verdes Drive South. The three main landslides in the City are the Abalone Cove, Portuguese Bend, and Klondike Canyon Landslides. The landslides are caused primarily by groundwater which decreases the strength of clays and adds additional weight to subsurface soils. Rainfall is the primary contributor to groundwater. The City has three main drainage basins within the landslide regions that collect rainwater and allow it to percolate to the soils below. These drainage basins include the Altamira Canyon Drainage Basin, the Portuguese Canyon/Paintbrush Canyon Drainage Basin, and the Klondike Canyon Drainage Basin. It is estimated that 50-75% of storm water infiltrates the canyons to become groundwater, primarily through fractures and expansive soils. Although the City has established drainage facilities within these canyons, the landslide movement causes damage to drainage facilities which enables more storm water to enter the surface below. **Figure 12.1** shows a damaged half corrugated pipe system along Palos Verdes Drive South resulting from continuous landslide movement:



Figure 12.2: Landslide Damage to Palos Verdes Drive South

To combat infiltrating storm water and landslide movements, the City has established mitigation infrastructure and improvements as part of efforts to slow the rate of the landslides and to minimize the likelihood of catastrophic landslide movements. This mitigation infrastructure consists of, grading, and dewatering wells in addition to drainage and sewer systems. For this section of the report, only the, grading, and dewatering wells were evaluated. The grading performed by the City in 1986 and recently in 2010 has resulted in significant benefits for the City. Also, the City's dewatering wells (in addition to other wells not owned by the City) help extract groundwater which enables subsurface ground movement. Overall, it appears that the mitigation efforts and infrastructure are, in some areas, effective in slowing subsurface land movement and preventing storm water from collecting/ponding.

Abalone Cove has a designated funding source for the maintenance of various projects through the funds collected by the Abalone Cove Landslide Abatement District (ACLAD). The physical area delineated by the boundary of the Abalone Cove Landslide represents an area within the Ancient Portuguese Bend Landslide (see map below) that is characterized by very slow movement (it is creeping along at slow rate). As a result, the installation of dewatering wells has been very successful in this area, the wells have a long life and are removing ground water which, in turn, helps slow landslide movement. The Portuguese Bend landslide area is also within the boundaries of the Ancient Portuguese Bend Landslide, however annual land movement is generally much greater than that in Abalone Cove (measurements are in feet per year) and a designated funding source does not exist. Although several dewatering wells have been installed in the Portuguese Bend area, only 8 remain functional. The high rate of ground movement in the area shears or deforms the well shaft rather quickly limiting viable installation sites. Recently staff has reviewed possible dewatering well locations along Berma Road which appear to be stable enough to consider as future well locations.



Map of the Ancient Portuguese Bend Landslide

After reviewing several documents related to the City's landslide mitigation infrastructure, the following three categories were evaluated:

1. The capacity of the infrastructure to prevent or slow subsurface land movement
2. The condition of the infrastructure as it relates to operation and maintenance.
3. The environmental impacts as it relates to maintaining dwellings, landscapes, and utilities, and protecting the public from harm.

Final Grade

After looking at the three grading criteria categories, it was determined that although the condition and environmental impacts of the infrastructure (i.e. grading/drainage) was measurable , and although the dewatering wells extract a large amount of groundwater, the infrastructure is inadequate during years of high rainfall, leaving the City's streets and building vulnerable to landslide damage. Overall, the City's landslide mitigation infrastructure earned a grade of D.

Recommendations



Based on the assessment and grade of the City's sewer infrastructure, we recommend the following actions:

- **Maintain a strong CIP program**
A strong CIP program adds new infrastructure and also replaces existing failing infrastructure.
- **Continue to seek and obtain Funding Sources**
The City's existing funding sources, although adequate for routine maintenance, may need to be supplemented to implement larger improvement projects, especially after a landslide emergency.
- **Maintain a strong maintenance program**
Strong maintenance ensures properly working mechanical infrastructure, and also corrects eroded grading improvements.
- **Continue to Work Together with other agencies**
A portion of dewatering wells located in the City are not owned by the City. Thus, the City would benefit from a continued and strong alliance with all owners of landslide mitigation infrastructure.
- **Groundwater sources in neighboring cities should be investigated and minimize, if possible**

Sources

This report summary and the grade assigned for the City's landslide mitigation infrastructure system has been determined as a result of the following sources of data:

- 2012 Abalone Cove, Portuguese Bend, and Klondike Canyon Landslides: Landslide Workshop Presentation
- Discussions with City Staff



SECTION 14: ACKNOWLEDGEMENTS

City of Rancho Palos Verdes:

- **Siamak Motahari**
Public Buildings, Parks, Trails
- **Bindu Vaish**
Public Buildings, Parks, Trails
- **Ron Dragoo**
Storm Water, Sewer, Abalone Cove Sewer, Palos Verdes Drive South Landslide
- **Andy Winje**
Storm Water, Sewer, Abalone Cove Sewer, Palos Verdes Drive South Landslide
- **Nicole Jules**
Right of Way
- **Ara Mihranian**
Trails

SA Associates:

- **Shahnawaz Ahmad**
President, Project Manager
- **Ruba Qaqish**
Public Buildings, Parks, and Trails
- **Phillip West**
Storm Water, Sewer, Abalone Cove Sewer, and Palos Verdes Drive South Landslide

Facility No.: B1
Facility Name: City Hall (Administration Building & Catalina Wing) - Civic Center
Location: Point Vicente Park and Civic Center



Condition:

	Background Info	Originally Military Building.
1	Year Built	1940's
	Last Renovation/Improvement	New Lobby & Elevator added circa 2005
2	Any Recent Work	
3	Any Scheduled Future Work	ADA Access Improvements (\$1.3M for the whole campus)
4	Identified Problems / Issues	Originally military barracks. Constructed at 3 different times. There is an expansion joint between the two parts of the building. The new lobby and elevator were added circa 2005. New back-up generator for the whole campus (2009) . No ventilation.

Capacity

1	Area (square foot)	17,530 (2 storey building, L shaped footprint)
2	Type of Use	offices
3	Parking	Adequate parking on campus

Operation & Maintenance

1	Maintenance Program	Operation: (1) Lack of Mechanical Ventilation (only local cooling equipment for the computer rooms): violating code of buildings for occupancy type. (2) Shortage of sanitary facilities. (3) Supply water pipe is too small to meet code with increased sanitary facilities. (4) The building is an energy hog: does not meet the current Title 24 requirements. Maintenance Cost: Approx. \$500K/year for all buildings. FY13-14 Budget around \$600K
2	\$/year Current	

Security & Safety

1	Safety Incidents/Accidents	(1) Fire Alarm system minimal. (2) No Automatic Sprinkler System. (3) Internal is not compliant with ADA requirements. (4) Building does not meet current building codes and ASCE and FEMA criteria (minimally reinforced concrete masonry unit (CMU) walls and weak connections from the floor and roof diaphragms do not meet current design standards for earthquake resistance. The existing suspended ceilings and cabinet/equipment anchorage do not meet current standards.)
2	Any Injuries/Law Suits	

Grading

Cost & Recommendations

A	90-100%	(1) A cost benefit analysis to be performed to decide between replacement or retrofitting (if replacement is an option). (2) Estimated cost for reconstruction approx. \$4 M (inherent constraints of the
B	Fred Hesse Community Building Plans, The Reynolds Environmental Group, Jan. 5, 1982.	
2	Fred Hesse Community Building Floor Plan and Plumbing and Mechanical Plan, Black & O'Dowd & Associates Inc., Oct. 8, 1985	
D	41-69%	

Available Documents

1	City Hall property Survey plans, 12/5/2007, KDM Meriden
2	Modifications to Utilities Plan Site LA-55L-TACT and Administration Facility Plan- Paving, Water System & Diesel Storage (current City Hall site), 1963, Quinton Engineers Ltd.
3	City Hall Generator Plans: Electrical, 2/12/2009, Nikolakopoulos and Assoc., Inc., Plumbing: 4/9/2010, The Sullivan Partnership Inc.
4	LA Site 55 Cathodic Protection (current City Hall site), 10/4/1968, Fort MacArthur, CA Office of the Post Engineer
5	ADA updates at City of RPV City Hall, 2/7/2008, Willdan
6	Seismic Hazard Evaluation for RPV Civic Center Buildings, 10/25/2000, Breiholz Qazi Engineering, Inc.
7	Community Development & Administration Building Floor Plans, date and preparer name not available on plan
8	Civic Center Facilities Assessment for City of RPV, 11/2010, Gonzalez Goodale Architects
9	Certified Thermography Reports for Planning Department Building and Ladera Linda Community Center, 3/2010, California IR
10	TV Communication & Administration Building Floor Plan, date and preparer name not available on plan
11	City of RPV Accessibility Self Evaluation and Transition Plan, 6/4/2013, City Staff Report
12	Office Space Planning Plans for Community Development Building, 10/30/2008, John M. Cruikshank Consultants, Inc.
13	City Hall Administration & PVNET Annex Floor Plan, 12/1/2008, date and preparer name not available on plan
14	Community Development Department Restroom ADA Compliance, 9/29/2010, John M. Cruikshank Consultants, Inc.
15	Sustainable Sites Initiative – A Case Study: Rancho Mirage City Hall Undergoes Site Renovation, APWA by David Volz
16	"New Civic Center Financing Options", 6/29/2010, City Staff Report & PowerPoint Presentation

Facility No.: B2
Facility Name: [Planning Dept Building - Civic Center](#)
Location: Point Vicente Park and Civic Center



Condition:

	Background Info	Originally the administration building of the Military base
1	Year Built	1940's
	Last Renovation/Improvement	
2	Any Recent Work	In 1984 two public restrooms and a meeting room were added to the north side entry area of the existing structure. No ventilation.
3	Any Scheduled Future Work	
4	Identified Problems / Issues	

Capacity

1	Area (square foot)	4,604 (one storey building, rectangular footprint)
2	Type of Use	offices
3	Parking	Adequate parking on campus

Operation & Maintenance

1	Maintenance Program	Operation: (1) Lack of Mechanical Ventilation (only local cooling equipment for the computer rooms); violating code of buildings for occupancy type. (2) Shortage of sanitary facilities. (3) Supply water pipe is too small to meet code with increased sanitary facilities. (4) The building is an energy hog; does not meet the current Title 24 requirements. Maintenance Cost: Approx. \$500K/year for all buildings. FY13-14 Budget around \$600K
2	\$/year Current/Near Future	

Security & Safety

1	Safety Incidents/Accidents	(1) Fire Alarm system minimal. (2) No Automatic Sprinkler System. (3) Internal is not compliant with ADA requirements. (4) Building does not meet current building codes and ASCE and FEMA criteria (minimally reinforced concrete masonry unit (CMU) walls and weak connections from the floor and roof diaphragms do not meet current design standards for earthquake resistance. The existing suspended ceilings and cabinet/equipment anchorage do not meet current standards.)
2	Any Injuries/Law Suits	

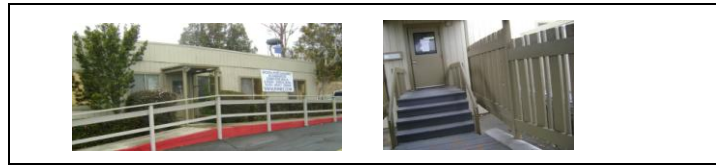
Grading

		Grading Criteria
A	Fred Hesse Community Building Plans, T	(1) A cost benefit analysis to be performed to decide between replacement or retrofitting (if replacement is an option). (2) Estimated cost for retrofitting is approx. \$1 M (inherent constraints of the structure's layout will remain, the resulting building will be modernized with an
2	Fred Hesse Community Building Floor Plan and Plumbing and Mechanical Plan, Black & O'Dowd & Associates Inc., Oct. 8, 1985	
C	70-79%	
F	40% or Lower	

Available Documents

1	City Hall property Survey plans, 12/5/2007, KDM Meridien
2	Modifications to Utilities Plan Site LA-55L-TACT and Administration Facility Plan- Paving, Water System & Diesel Storage (current City Hall site), 1963, Quinton Engineers Ltd.
3	City Hall Generator Plans: Electrical, 2/12/2009, Nikolakopoulos and Assoc., Inc., Plumbing: 4/9/2010, The Sullivan Partnership Inc.
4	LA Site 55 Cathodic Protection (current City Hall site), 10/4/1968, Fort MacArthur, CA Office of the Post Engineer
5	ADA updates at City of RPV City Hall, 2/7/2008, Willdan
6	Seismic Hazard Evaluation for RPV Civic Center Buildings, 10/25/2000, Breiholz Qazi Engineering, Inc.
7	Community Development & Administration Building Floor Plans, date and preparer name not available on plan
8	Civic Center Facilities Assessment for City of RPV, 11/2010, Gonzalez Goodale Architects
9	Certified Thermography Reports for Planning Department Building and Ladera Linda Community Center, 3/2010, California IR
10	TV Communication & Administration Building Floor Plan, date and preparer name not available on plan
11	City of RPV Accessibility Self Evaluation and Transition Plan, 6/4/2013, City Staff Report
12	Office Space Planning Plans for Community Development Building, 10/30/2008, John M. Cruikshank Consultants, Inc.
13	City Hall Administration & PVNET Annex Floor Plan, 12/1/2008, date and preparer name not available on plan
14	Community Development Department Restroom ADA Compliance, 9/29/22010, John M. Cruikshank Consultants, Inc.

Facility No.: B3
Facility Name: PVNET - Civic Center
Location: Point Vicente Park and Civic Center



Condition:

Background Info	Built as an annex to the Administration Building - mobile building.
1 Year Built	
Last Renovation/Improvement	
2 Any Recent Work	
3 Any Scheduled Future Work	
4 Identified Problems / Issues	Mobile building

Capacity

1 Area (square foot)	3,083 (Rectangular Footprint)
2 Type of Use	Offices
3 Parking	Adequate Parking on Campus

Operation & Maintenance

1 Maintenance Program	Operation: (1) Lack of Mechanical Ventilation (only local cooling equipment for the computer rooms): violating code of buildings for occupancy type. (2) Shortage of sanitary facilities. (3) Supply water pipe is too small to meet code with increased sanitary facilities. (4) The building is an energy hog: does not meet the current Title 24 requirements. Maintenance Cost: Approx. \$500K/year for all buildings. FY13-14 Budget around \$600K
2 \$/year Current	

Security & Safety

1 Safety Incidents/Accidents	
2 Any Injuries/Law Suits	

Grading

Grading Criteria

A 90-100%	The building is a mobile building. No mechanical ventilation. Shortage of sanitary facilities. Energy hog. Cost of retrofitting estimated at \$1.19M (estimated prorata rates in report for other buildings at \$245/ft2)
B 80-89%	
C 70-79%	
D Fred Hesse Community Building Plans, The Reynolds Environmental Group, Jan. 5, 1982.	
2 Fred Hesse Community Building Floor Plan and Plumbing and Mechanical Plan, Black & O'Dowd & Associates Inc., Oct. 8, 1985	

1 City Hall property Survey plans, 12/5/2007, KDM Meriden
2 Modifications to Utilities Plan Site LA-55L-TACT and Administration Facility Plan- Paving, Water System & Diesel Storage (current City Hall site), 1963, Quinton Engineers Ltd.
3 City Hall Generator Plans: Electrical, 2/12/2009, Nikolakopoulos and Assoc., Inc., Plumbing: 4/9/2010, The Sullivan Partnership Inc.
4 LA Site 55 Cathodic Protection (current City Hall site), 10/4/1968, Fort MacArthur, CA Office of the Post Engineer
5 ADA updates at City of RPV City Hall, 2/7/2008, Willdan
6 Seismic Hazard Evaluation for RPV Civic Center Buildings, 10/25/2000, Breiholz Qazi Engineering, Inc.
7 Community Development & Administration Building Floor Plans, date and preparer name not available on plan
8 Civic Center Facilities Assessment for City of RPV, 11/2010, Gonzalez Goodale Architects
9 Certified Thermography Reports for Planning Department Building and Ladera Linda Community Center, 3/2010, California IR
10 TV Communication & Administration Building Floor Plan, date and preparer name not available on plan
11 City of RPV Accessibility Self Evaluation and Transition Plan, 6/4/2013, City Staff Report
12 Office Space Planning Plans for Community Development Building, 10/30/2008, John M. Cruikshank Consultants, Inc.
13 City Hall Administration & PVNET Annex Floor Plan, 12/1/2008, date and preparer name not available on plan
14 Community Development Department Restroom ADA Compliance, 9/29/2010, John M. Cruikshank Consultants, Inc.

Facility No.: B4
Facility Name: Cable TV-CH-33 Studio - Civic Center
Location: Point Vicente Park and Civic Center



Condition:

	Background Info	Originally the missile assembly and testing building
1	Year Built	1950's era building.
	Last Renovation/Improvement	Building has various heights, high bay rooms with large roll-up doors.
2	Any Recent Work	
3	Any Scheduled Future Work	
4	Identified Problems / Issues	

Capacity

1	Area (square foot)	1,242 (rectangular footprint)
2	Type of Use	Telecommunication Building
3	Parking	Adequate parking on site

Operation & Maintenance

1	Maintenance Program	Operation: (1) There is a split system rooftop package AC Unit serving a portion of the building. (2) Lack of mechanical ventilation or heating of any kind in the remaining of the building. (3) Shortage of sanitary facilities. Maintenance Cost: Approx. \$500K/year for all buildings. FY13-14 Budget around \$600K
2	\$/year Current	

Security & Safety

1	Safety Incidents/Accidents	(1) No fire alarm system (2) No automatic sprinkler system (3) Existing system is compliant with current code requirements.
2	Any Injuries/Law Suits	

Grading

		Grading Criteria
A	90-100%	Building from the 1950's. No improvements performed. Cost for retrofitting or reconditioning to "like new status" aprx. \$76K. However, the building will forever suffer from other limitations. Modern buildings would not be designed with the proportions that exist or the construction technology used, unless it was being designed as a barracks for mid century military. Recommendation: Potential value should be given to reuse the facilities for other City/community services.
B	80-89%	
C	70-79%	
D	41-69%	
F	40% or Lower	

Fred Hesse Community Building Plans, The Reynolds Environmental Group, Jan. 5, 1982.

2	Fred Hesse Community Building Floor Plan and Plumbing and Mechanical Plan, Black & O'Dowd & Associates Inc., Oct. 8, 1985
1	City Hall property Survey plans, 12/5/2007, KDM Meridian
3	City Hall Generator Plans: Electrical, 2/12/2009, Nikolakopoulos and Assoc., Inc., Plumbing: 4/9/2010, The Sullivan Partnership Inc.
4	LA Site 55 Cathodic Protection (current City Hall site), 10/4/1968, Fort MacArthur, CA Office of the Post Engineer
5	ADA updates at City of RPV City Hall, 2/7/2008, Willdan
6	Seismic Hazard Evaluation for RPV Civic Center Buildings, 10/25/2000, Breiholz Qazi Engineering, Inc.
7	Community Development & Administration Building Floor Plans, date and preparer name not available on plan
8	Civic Center Facilities Assessment for City of RPV, 11/2010, Gonzalez Goodale Architects
9	Certified Thermography Reports for Planning Department Building and Ladera Linda Community Center, 3/2010, California IR
10	TV Communication & Administration Building Floor Plan, date and preparer name not available on plan
11	City of RPV Accessibility Self Evaluation and Transition Plan, 6/4/2013, City Staff Report
12	Office Space Planning Plans for Community Development Building, 10/30/2008, John M. Cruikshank Consultants, Inc.
13	City Hall Administration & PVNET Annex Floor Plan, 12/1/2008, date and preparer name not available on plan
14	Community Development Department Restroom ADA Compliance, 9/29/2010, John M. Cruikshank Consultants, Inc.

Facility No.: B5
Facility Name: War Head Room / Shop
Location: Point Vicente Park and Civic Center



Condition:

	Background Info	
1	Year Built	1950's era building
	Last Renovation/Improvement	
2	Any Recent Work	
3	Any Scheduled Future Work	
4	Identified Problems / Issues	

Capacity

1	Area (square foot)	890
2	Type of Use	Maintenance Workshop
3	Parking	Adequate parking on site

Operation & Maintenance

1	Maintenance Program	Maintenance Cost: Approx. \$500K/year for all buildings. FY13-14
2	\$/year Current/Near Future	Budget around \$600K

Security & Safety

1	Safety Incidents/Accidents	
2	Any Injuries/Law Suits	

Grading

Grading Criteria

A	90-100%	Building from the 1950's. No improvements performed. Same problems as other buildings due to being built as a military base building. Large roll-up doors. No ventilation. No fire alarm/sprinkler system.
B	80-89%	
C	70-79%	
D	41-69%	
F	40% or Lower	

Available Documents

1	Fred Hesse Community Building Plans, The Reynolds Environmental Group, Jan. 5, 1982.
2	Fred Hesse Community Building Floor Plan and Plumbing and Mechanical Plan, Black & O'Dowd & Associates Inc., Oct. 8, 1985
3	City Hall Generator Plans: Electrical, 2/12/2009, Nikolakopoulos and Assoc., Inc., Plumbing: 4/9/2010, The Sullivan Partnership Inc.
5	ADA updates at City of RPV City Hall, 2/7/2008, Willdan
6	Seismic Hazard Evaluation for RPV Civic Center Buildings, 10/25/2000, Breiholz Qazi Engineering, Inc.
7	Community Development & Administration Building Floor Plans, date and preparer name not available on plan
8	Civic Center Facilities Assessment for City of RPV, 11/2010, Gonzalez Goodale Architects
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12	Office Space Planning Plans for Community Development Building, 10/30/2008, John M. Cruikshank Consultants, Inc.
13	City Hall Administration & PVNET Annex Floor Plan, 12/1/2008, date and preparer name not available on plan
14	Community Development Department Restroom ADA Compliance, 9/29/2010, John M. Cruikshank Consultants, Inc.

Facility No.: B5
Facility Name: [Sign Maintenance Building](#)
Location: Point Vicente Park and Civic Center

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Condition:

	Background Info	
1	Year Built	1950's era building
	Last Renovation/Improvement	
2	Any Recent Work	
3	Any Scheduled Future Work	
4	Identified Problems / Issues	

Capacity

1	Area (square foot)	880
2	Type of Use	Storage
3	Parking	Adequate parking on site

Operation & Maintenance

1	Maintenance Program	Maintenance Cost: Approx. \$500K/year for all buildings. FY13-14
2	\$/year Current/Near Future	Budget around \$600K

Security & Safety

1	Safety Incidents/Accidents	
2	Any Injuries/Law Suits	

Grading

Grading Criteria

A	90-100%	Building from the 1950's. No improvements performed. Same problems as other buildings due to being built as a military base building. No ventilation. No fire alarm/sprinkler system.
B	80-89%	
C	70-79%	
D	41-69%	
F	40% or Lower	

Available Documents

1	Fred Hesse Community Building Plans, The Reynolds Environmental Group, Jan. 5, 1982.
2	Fred Hesse Community Building Floor Plan and Plumbing and Mechanical Plan, Black & O'Dowd & Associates Inc., Oct. 8, 1985
3	City Hall Generator Plans: Electrical, 2/12/2009, Nikolakopoulos and Assoc., Inc., Plumbing: 4/9/2010, The Sullivan Partnership Inc.
5	ADA updates at City of RPV City Hall, 2/7/2008, Willdan
6	Seismic Hazard Evaluation for RPV Civic Center Buildings, 10/25/2000, Breiholz Qazi Engineering, Inc.
7	Community Development & Administration Building Floor Plans, date and preparer name not available on plan
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11	City of RPV Accessibility Self Evaluation and Transition Plan, 6/4/2013, City Staff Report
12	Office Space Planning Plans for Community Development Building, 10/30/2008, John M. Cruikshank Consultants, Inc.
13	City Hall Administration & PVNET Annex Floor Plan, 12/1/2008, date and preparer name not available on plan
14	Community Development Department Restroom ADA Compliance, 9/29/22010, John M. Cruikshank Consultants, Inc.

Facility No.: B7
Facility Name: Point Vicente Interpretive Center (Museum & Gift Shop Building)
Location: 31501 Palos Verdes Drive West



Condition:

Background Info	
1 Year Built	1989
Last Renovation/Improvement	
2 Any Recent Work	2005 complete Arch/Interiors/ MEP/Hardscape/Irrigation renovation
3 Any Scheduled Future Work	(1) POINT VICENTE PARK COMMUNITY CENTER Adopted by the City Council in 2008, the latest concept calls for a 20,000 square-foot community center that could accommodate meeting space for community groups, recreational facilities, classroom space and full-sized recreational pool. \$3M to \$8M (New Community Center suggested in the CIP Plan. Budget not available) (2) POINT VICENTE INTERPRETIVE CENTER (PVIC) BUILDING IDENTIFICATION SIGN / SCREENING WALL In order to provide a building identification sign that will also screen the existing above ground power generator, gas tank, electrical panels/ transformers, a 100-foot long concrete serpentine shaped wall is proposed to be installed in the lawn area adjacent to the pedestrian walkway. (\$110,000) (3) SOLAR POWER SYSTEM FOR POINT VICENTE INTERPRETIVE CENTER (PVIC) Installation of lightweight and advanced solar energy generating systems over the roof of PVIC to reduce power consumption with occasional opportunities to sell power to the grid. This project will help the City with its energy savings goal and will reduce considerable amounts of emissions. Typically the energy savings can cover the cost of projects of this scale in an estimated period of 15 to 20 years (\$410,000)
4 Identified Problems / Issues	

Capacity

1 Area (square foot)	9,746
2 Type of Use	Natural & Cultural History Museum, Gift Shop & Multi Purpose Hall with Full Kitchen.
3 Parking	Adequate Parking

Operation & Maintenance

1 Maintenance Program	Fully Sprinkled. All building MEP & HVAC systems are working properly. Building well maintained after latest renovation 2004.
2 Maintenance Logs	
3 No. of Maintenance Crew	
4 Employees/Visitors Complaints	
5 \$/year Historical	
6 \$/year Current/Near Future	
7 \$/year Future	

Security & Safety

1 Safety Incidents/Accidents	No security or safety concerns available.
2 Any Injuries/Law Suits	

Grading

Grading Criteria

A 90-100%	The building has a modern design. All building systems are in place and operating properly. No security or safety threats to the public or the employees. Recommendation: continue current maintenance program. Future improvements scheduled.
B 80-89%	
C Fred Hesse Community Building Plans, The Reynolds Environmental Group, Jan. 5, 1982.	
2 Fred Hesse Community Building Floor Plan and Plumbing and Mechanical Plan, Black & O'Dowd & Associates Inc., Oct. 8, 1985	
F 40% or Lower	

Available Documents

1 Demolition, Grading & Control Plans
2 2004 PVIC Expansion Plans
3 Emergency Generator Plans
4 2011 PVIC Irrigation Water Saving Compliance

Facility No.: B8
Facility Name: Community Building
Location: Ladera Linda Community Center



Condition:

1	Background Info	Prefabricated, assembled on-site, interlocking metallic panel constructed school classroom type units.
	Year Built	1960's
	Last Renovation/Improvement	
2	Any Recent Work	
3	Any Scheduled Future Work	The city is considering the rehabilitation of the of community center (CIP Plan for FY17/18) LADERA LINDA PARK & COMMUNITY CENTER BUILDINGS REPLACEMENT The initial stage of this project, <u>for which a budget is appropriated</u>, is to create a master plan which will lay the groundwork for the site's long-term redevelopment and phased implementation. This stage involves a study of community needs through public outreach along with contemplating the City's needs for public service facilities. This work will be followed by programming, quantifying the needs, planning and preparing a feasibility report to create a master plan which can be phased for design and construction. The cost calculation for Ladera Linda Buildings Replacement project is based on an estimated need for 12,000 square-feet of buildings to replace the existing 18,000 square-feet. The anticipated square footage can cover park restrooms, a staff building, multipurpose room, activity rooms, discovery room and a Park Ranger/Deputy Sheriff drop-in office. Other improvements include park grounds landscaping & irrigation, picnic tables, benches and an emergency generator. The project can be divided in three phases. The first phase will include Hazmat abatement, removal of all buildings, installation of all utility infrastructures, the construction of 6,000 SF of new building, park grounds, landscaping & improvements. The second and third phase will include 3,000 SF of new buildings each. For Phase 1: \$1.4 M is estimated for the park improvements and Infrastructure (20% of the \$7.2M), and \$2.6M for buildings. Phase 2 (\$3.2M) buildings only. Total for buildings is \$5.8. Not considered in investment needs.
4	Identified Problems / Issues	Old buildings. Maintenance no longer effective. No ventilation. No operating heating/cooling system.

Capacity

1	Area (square foot)	5,182
2	Type of Use	Multi purpose room
3	Parking	Adequate parking available

Operation & Maintenance

1	Maintenance Program	(1) Building declared an energy hog by California IR. (2) Parking lot in fair condition and will need resurfacing in the near future. (3) Forced air heating equipment are inefficient and are not worth replacing. (4) Temporary electric heaters are too small and do not provide comfort and should be removed as a safety measure.
2	\$/year Future	

Security & Safety

1	Safety Incidents/Accidents	(1) Structures seems seismically questionable (2) Temporary electric heaters should be removed as a safety measure. (3) No Sprinkler System (4) Not ADA compliant. Accessibility needs to be upgraded (5) In terms of liability the defects should be abated from the electrical and plumbing systems.
2	Any Injuries/Law Suits	

Grading

		Grading Criteria
A	90-100%	(1) Prefabricated buildings since 1960's (2) Structures seems seismically questionable. (3) Building systems are too old and are not operating properly. (4) No ventilation (5) Liability due to defects in the electrical and plumbing systems.
B	80-89%	(6) Peeling paint <u>lead</u> based. (7) Floor and ceiling tiles and other building materials contain <u>asbestos</u> . Note: Title IV of the Toxic Substances Control Act considers buildings built prior 1978 contain lead.
C	70-79%	Recommendation: (1) Given the potential costs associates with renovation, the cost of maintenance, and the fact that the building is an energy hog, a new facility might be a better investment. (2) The remediation of the building is unreasonable for the overall Return On Investment (2) For the time being, at a minimum, seismic retrofitting should be considered.
D	41-69%	
F	40% or Lower	

Fred Hesse Community Building Plans, The Reynolds Environmental Group, Jan. 5, 1982.

2	Fred Hesse Community Building Floor Plan and Plumbing and Mechanical Plan, Black & O'Dowd & Associates Inc., Oct. 8, 1985
1	Ladera Linda Facility Inspection Report, 6/29/2011, Willdan
3	Ladera Linda Architectural/MEP/Landscape Plans, 1966-1967, Kistner, Wright & Wright Architects and Engineers
4	California IR Certified Thermography Report

Facility No.: B9
Facility Name: Discovery Room
Location: Ladera Linda Community Center



Condition:

1	Background Info	Prefabricated, assembled on-site, interlocking metallic panel constructed school classroom type units.
	Year Built	1960's
	Last Renovation/Improvement	
2	Any Recent Work	
3	Any Scheduled Future Work	Same plan for all buildings. Details on B-8 sheet.
4	Identified Problems / Issues	Old buildings. Maintenance no longer effective. No ventilation, heating/cooling

Capacity

1	Area (square foot)	3,398
2	Type of Use	Small museum/discovery room for children
3	Parking	Adequate parking available

Operation & Maintenance

1	Maintenance Program	(1) Building declared an energy hog by California IR. (2) Parking lot in fair condition and will need resurfacing in the near future. (3) No Sprinkler heating equipment are inefficient and are not worth replacing. (4)
2	\$/year Current	Temporary electric heaters are too small and do not provide comfort and should be removed as a safety measure.

Security & Safety

1	Safety Incidents/Accidents	(1) Structures seems seismically questionable (2) Temporary electric heaters should be removed as a safety measure. (3) No Sprinkler System (4) Not ADA compliant. Accessibility needs to be upgraded (5)
2	Any Injuries/Law Suits	In terms of liability the defects should be abated from the electrical and plumbing systems.

Grading

Grading Criteria

A	90-100%	(1) Prefabricated buildings since 1960's (2) Structures seems seismically questionable. (3) Building systems are too old and are not operating properly. (4) No ventilation (5) Liability due to defects in the electrical and plumbing systems. (6) Peeling paint lead based. (7) Floor and ceiling tiles and other building materials contain asbestos . Note: Title IV of the Toxic Substances Control Act considers buildings built prior 1978 contain lead. Recommendation: (1) Given the potential costs associates with renovation, the cost of maintenance, and the fact that the building is an energy hog, a new facility might be a better investment. (2) The remediation of the building is unreasonable for the overall Return On Investment (2) For the time being, at a minimum, seismic retrofitting should be considered.
B	80-89%	
C	70-79%	
D	41-69%	
F	40% or Lower	

Available Documents

1	Fred Hesse Community Building Plans, The Reynolds Environmental Group, Jan. 5, 1982.
2	Fred Hesse Community Building Floor Plan and Plumbing and Mechanical Plan, Black & O'Dowd & Associates Inc., Oct. 8, 1985
3	Ladera Linda Architectural/MEP/Landscape Plans, 1966-1967, Kistner, Wright & Wright Architects and Engineers

Facility No.: B10
Facility Name: Multi Purpose Room
Location: Ladera Linda Community Center



Condition:

1	Background Info	Prefabricated, assembled on-site, interlocking metallic panel constructed school classroom type units.
	Year Built	1960's
	Last Renovation/Improvement	
2	Any Recent Work	
3	Any Scheduled Future Work	
4	Identified Problems / Issues	Old buildings. Maintenance no longer effective. No ventilation, heating/cooling

Capacity

1	Area (square foot)	3,288
2	Type of Use	Multi Purpose Hall
3	Parking	Adequate parking available

Operation & Maintenance

1	Maintenance Program	(1) Building declared an energy hog by California IR. (2) Parking lot in fair condition and will need resurfacing in the near future. (3) Forced air heating equipment are inefficient and are not worth replacing. (4) Temporary electric heaters are too small and do not provide comfort and should be removed as a safety measure.
2	\$/year Current	

Security & Safety

1	Safety Incidents/Accidents	(1) Structures seems seismically questionable (2) Temporary electric heaters should be removed as a safety measure. (3) No Sprinkler System (4) Not ADA compliant. Accessibility needs to be upgraded (5) In terms of liability the defects should be abated from the electrical and plumbing systems.
2	Any Injuries/Law Suits	

Grading

		Grading Criteria
A	90-100%	(1) Prefabricated buildings since 1960's (2) Structures seems seismically questionable. (3) Building systems are too old and are not operating properly. (4) No ventilation (5) Liability due to defects in the electrical and plumbing systems. (6) Peeling paint lead based. (7) Floor and ceiling tiles and other building materials contain asbestos. Note: Title IV of the Toxic Substances Control Act considers buildings built prior 1978 contain lead.
B	80-89%	
C	70-79%	
D	41-69%	Recommendation: (1) Given the potential costs associates with renovation, the cost of maintenance, and the fact that the building is an energy hog, a new facility might be a better investment. (2) The remediation of the building is unreasonable for the overall Return On Investment (2) For the time being, at a minimum, seismic retrofitting should be considered.
F	40% or Lower	

Available Documents

1	Fred Hesse Community Building Plans, The Reynolds Environmental Group, Jan. 5, 1982.
2	Fred Hesse Community Building Floor Plan and Plumbing and Mechanical Plan, Black & O'Dowd & Associates Inc., Oct. 8, 1985
3	Ladera Linda Architectural/MEP/Landscape Plans, 1966-1967, Kistner, Wright & Wright Architects and Engineers

Facility No.: B11
Facility Name: Classroom
Location: Ladera Linda Community Center



Condition:

1	Background Info	Prefabricated, assembled on-site, interlocking metallic panel constructed school classroom type units.
	Year Built	1960's
	Last Renovation/Improvement	
2	Any Recent Work	
3	Any Scheduled Future Work	
4	Identified Problems / Issues	Old buildings. Maintenance no longer effective. No ventilation, heating/cooling

Capacity

1	Area (square foot)	3538
2	Type of Use	Activities/day care for toddlers and pre-schoolers
3	Parking	Adequate parking available

Operation & Maintenance

1	Maintenance Program	(1) Building declared an energy hog by California IR. (2) Parking lot in fair condition and will need resurfacing in the near future. (3) Forced air heating equipment are inefficient and are not worth replacing. (4) Temporary electric heaters are too small and do not provide comfort and should be removed as a safety measure.
6	\$/year Current Future	

Security & Safety

1	Safety Incidents/Accidents	(1) Structures seems seismically questionable (2) Temporary electric heaters should be removed as a safety measure. (3) No Sprinkler System (4) Not ADA compliant. Accessibility needs to be upgraded (5) In terms of liability the defects should be abated from the electrical and plumbing systems.
2	Any Injuries/Law Suits	

Grading

Grading Criteria

A	90-100%	(1) Prefabricated buildings since 1960's (2) Structures seems seismically questionable. (3) Building systems are too old and are not operating properly. (4) No ventilation (5) Liability due to defects in the electrical and plumbing systems. (6) Peeling paint lead based. (7) Floor and ceiling tiles and other building materials contain asbestos. Note: Title IV of the Toxic Substances Control Act considers buildings built prior 1978 contain lead.
B	80-89%	
C	70-79%	
D	41-69%	Recommendation: (1) Given the potential costs associates with renovation, the cost of maintenance, and the fact that the building is an energy hog, a new facility might be a better investment. (2) The remediation of the building is unreasonable for the overall Return On Investment (2) For the time being, at a minimum, seismic retrofitting should be considered.
F	40% or Lower	

Available Documents

1	Fred Hesse Community Building Plans, The Reynolds Environmental Group, Jan. 5, 1982.
2	Fred Hesse Community Building Floor Plan and Plumbing and Mechanical Plan, Black & O'Dowd & Associates Inc., Oct. 8, 1985
3	Ladera Linda Architectural/MEP/Landscape Plans, 1966-1967, Kistner, Wright & Wright Architects and Engineers

Facility No.: B12
Facility Name: Restrooms
Location: Ladera Linda Community Center (P9)



Condition:

1	Background Info	Prefabricated, assembled on-site, interlocking metallic panel constructed school classroom type units.
	Year Built	1960's
	Last Renovation/Improvement	
2	Any Recent Work	
3	Any Scheduled Future Work	
4	Identified Problems / Issues	Old buildings. Maintenance no longer effective.

Capacity

1	Area (square foot)	3,473
2	Type of Use	Restrooms serving the park and the community center
5	Parking	Adequate parking available

Operation & Maintenance

1	Maintenance Program	(1) Building declared an energy hog by California IR. (2) Plumbing system is very old. (3) Requires Renovation.
7	\$/year Current	

Security & Safety

1	Safety Incidents/Accidents	(1) Structures seems seismically questionable (2) Not ADA compliant.
2	Any Injuries/Law Suits	Accessibility needs to be upgraded

Grading

Grading Criteria

A	90-100%	(1) Prefabricated buildings since 1960's (2) Structures seems seismically questionable. (3) Restroom systems are too old and are not operating properly. (6) Peeling paint lead based. (7) Floor and ceiling tiles and other building materials contain asbestos. Note: Title IV of the Toxic Substances Control Act considers buildings built prior 1978 contain lead. Recommendations: (1) For the time being, at a minimum, seismic retrofitting should be considered along with renovation of the existing restroom and drinking fountains especially the plumbing system serving the restrooms.
B	80-89%	
C	70-79%	
D	41-69%	
F	40% or Lower	

Available Documents

1	Fred Hesse Community Building Plans, The Reynolds Environmental Group, Jan. 5, 1982.	
2	Fred Hesse Community Building Floor Plan and Plumbing and Mechanical Plan, Black & O'Dowd & Associates Inc., Oct. 8, 1985	
3	Ladera Linda Architectural/MEP/Landscape Plans, 1966-1967, Kistner, Wright & Wright Architects and Engineers	

Facility No.: B13
Facility Name: Community Building
Location: Fred Hesse Jr. Park



Condition:

	Background Info	Building retrofitting performed around 1989
1	Year Built	
	Last Renovation/Improvement	Internal renovation performed recently. No documentation available.
2	Any Recent Work	
3	Any Scheduled Future Work	(1) JOHN MCTAGGART MEMORIAL HALL AND COUNCIL CHAMBERS IMPROVEMENTS \$250,000 (the hall where council meetings take place) Funding available in CIP Plan fro FY 13/14 (2) SOLAR POWER SYSTEM FOR HESSE PARK BUILDING to reduce power consumption with occasional opportunities to sell power to the grid \$350,000 (Funding not available. In CIP Plan)
4	Identified Problems / Issues	

Capacity

1	Area (square foot)	9,040
2	Type of Use	Active Community Center. House of City Council Meetings and active senior center
3	Parking	Adequate Parking

Operation & Maintenance

1	Maintenance Program	Internal renovation performed recently. No documentation available.
2	\$/year Current/Near Future	Fiber optics \$60,000 & Parking Lot Resurfacing \$190,000

Security & Safety

1	Safety Incidents/Accidents	None reported
2	Any Injuries/Law Suits	

Grading

Grading Criteria	
A	90-100%
B	80-89%
C	70-79%
D	41-69%
F	40% or Lower

Available Documents

1	Fred Hesse Community Building Plans, The Reynolds Environmental Group, Jan. 5, 1982.
2	Fred Hesse Community Building Floor Plan and Plumbing and Mechanical Plan, Black & O'Dowd & Associates Inc., Oct. 8, 1985

Facility No.: B14
Facility Name: Community Building
Location: Robert E. Ryan Community Park



Condition:

	Background Info	
1	Year Built	1969
	Last Renovation/Improvement	2011 Restrooms Renovation (ongoing)
2	Any Recent Work	
3	Any Scheduled Future Work	
4	Identified Problems / Issues	

Capacity

1	Area (square foot)	1,725
2	Type of Use	Community/Activity Building & Restrooms
3	Parking	Adequate Parking on Site

Operation & Maintenance

1	Maintenance Program	Maintained as part of the City's Building Maintenance Program
2	\$/year Current	

Security & Safety

1	Safety Incidents/Accidents	None reported
2	Any Injuries/Law Suits	
3	Current Security Measures	
4	Employees/Visitors Complaints	

Grading

Grading Criteria

A	90-100%	The restroom part of the building was completely renovated recently with ADA compliance. The other part of the building (community center/multipurpose) requires renovation.
B	80-89%	
C	70-79%	
D	41-69%	
F	40% or Lower	

Fred Hesse Community Building Plans, The Reynolds Environmental Group, Jan. 5, 1982.

2	Fred Hesse Community Building Floor Plan and Plumbing and Mechanical Plan, Black & O'Dowd & Associates Inc., Oct. 8, 1985
1	Ryan Park Restrooms Improvement and Accessibility Compliance, 5/4/2012, Willdan Landscape Architects

Facility No.: B15
Facility Name: Abalone Cove Building
Location: Abalone Cove Shoreline



Condition:

	Background Info	
1	Year Built	1989
	Last Renovation/Improvement	No recent renovation performed
2	Any Recent Work	
3	Any Scheduled Future Work	Retrofitting (FY12-13 Budget 108k for Improvements): Abalone Cove Shoreline Park Staff Building, Restroom, and Driveway Improvements: With the expected 2014 completion of the Abalone Cove Shoreline Park project, usage of this park will increase significantly. The FY12-13 project is 50% funded by a Land and Water Conservation Fund grant, with a 50% City matching requirement. Costs to improve the staff building, restrooms and driveways, which are in poor condition, are not eligible for grant funding. These additional improvements will enhance the overall condition of this facility and also improve the City's ADA compliance. This project will be funded from Quimby money. (\$108,000)
4	Identified Problems / Issues	

Capacity

1	Area (square foot)	700
2	Type of Use	Concession building, storage, all purpose room, kitchen, lifeguard & restroom
3	Parking	Adequate parking on site (dirt parking)

Operation & Maintenance

1	Maintenance Program	Maintained as part of the City's Building Maintenance Program
2	\$/year Current	

Security & Safety

1	Safety Incidents/Accidents	None reported
2	Any Injuries/Law Suits	

Grading

Grading Criteria

A	90-100%	(1) Building was built in 1989 and has not undergone major renovation since. (2) The site visit shows the building in a poor condition. (3) Renovation for the park site is scheduled for 2014. (4) FY13/14 budget includes Abalone Cove Shoreline Park Staff Building, Restroom, and Driveway Improvements: These additional improvements will enhance the overall condition of this facility and also improve the City's ADA compliance.
B	80-89%	
C	70-79%	
D	41-69%	
F	40% or Lower	

Available Documents

1	Fred Hesse Community Building Plans, The Reynolds Environmental Group, Jan. 5, 1982.
2	Fred Hesse Community Building Floor Plan and Plumbing and Mechanical Plan, Black & O'Dowd & Associates Inc., Oct. 8, 1985

Facility No.: B16
Facility Name: Public Restrooms
Location: Eastview Park



Condition:

	Background Info	1/4 million project improvement for buildings??? Find source
1	Year Built	0
	Last Renovation/Improvement	2012
2	Any Recent Work	ADA Compliance
3	Any Scheduled Future Work	
4	Identified Problems / Issues	

Capacity

1	Area (square foot)	300
2	Type of Use	Restrooms/Storage
3	Parking	Adequate Parking

Operation & Maintenance

1	Maintenance Program	Maintained as part of the City's Building Maintenance Program
2	\$/year Current	

Security & Safety

1	Safety Incidents/Accidents	None reported
2	Employees/Visitors Complaints	

Grading

Grading		Grading Criteria
A	90-100%	Restroom/storage building was constructed during 2012. A new building.
B	80-89%	
C	70-79%	
D	41-69%	
F	40% or Lower	

Available Documents

1	Fred Hesse Community Building Plans, The Reynolds Environmental Group, Jan. 5, 1982.
2	Fred Hesse Community Building Floor Plan and Plumbing and Mechanical Plan, Black & O'Dowd & Associates Inc., Oct. 8, 1985

Facility No.: B17
Facility Name: Public Restrooms
Location: Pelican Cove Park (Previously Fisherman's Access)



Condition:

	Background Info	
1	Year Built	Remodeled in 2008 to match adjacent hotel architecture
	Last Renovation/Improvement	2008
2	Any Recent Work	
3	Any Scheduled Future Work	
4	Identified Problems / Issues	

Capacity

1	Area (square foot)	300
2	Type of Use	Restrooms
3	Parking	Adequate Parking

Operation & Maintenance

1	Maintenance Program	Maintained as part of the City's Building Maintenance Program
2	\$/year Current	

Security & Safety

1	Safety Incidents/Accidents	None reported
2	Any Injuries/Law Suits	

Grading

Grading Criteria

A	90-100%	Remodeled in 2008 to match adjacent hotel architecture. Building requires renovation to meet ADA requirements and for upgrade of facilities.
B	80-89%	
C	70-79%	
D	41-69%	
F	40% or Lower	

Available Documents

1	Fred Hesse Community Building Plans, The Reynolds Environmental Group, Jan. 5, 1982.	
2	Fred Hesse Community Building Floor Plan and Plumbing and Mechanical Plan, Black & O'Dowd & Associates Inc., Oct. 8, 1985	



City of Rancho Palos Verdes

2013 Infrastructure Report Card

Evaluation of Landslide Infrastructure



Evaluation Strategy

Grading Shall be the Opinion of the Consultant Based on the Following Approach:

- Meet with City Staff (Kickoff Meeting)
- Gather Required Information (i.e. Data, Reports, etc)
- Visit Various Facility Sites
- Review Provided Information
- Evaluate Current Infrastructure Condition and Determine "Draft" Grade
- Discuss Analysis of Data and Obtain Written and Verbal Elaborations on Current Infrastructure Conditions from City Staff
(that Amend or Expand Written Report Data)
- Re-Evaluate Current Infrastructure Conditions and Draft Grade
(Based on Increased Understanding of Infrastructure Conditions from City Staff)
- Prepare Draft Report Summarizing the Infrastructure Conditions and Provide a Revised Grade (if Different from "Draft" Grade Above)
- Meet with City to Review Draft Report & Obtain Comments from City Staff
- Finalize Report Based on Comments from City and Provide Final Grade

Kickoff Meeting with City Staff

- June 12, 2013

- Attendees:

Siamak Motahari
Bindu Vaish
Nicole Jules
Ron Dragoo
Andy Winje
Nadia Carasco

- Ron Dragoo Provided Information on The Landslide Mitigation Infrastructure Following the Kickoff Meeting.

Data/Information Evaluated

- 2012 Landslide Mitigation Workshop Presentation
- 2007 GIS Landslide Inventory Maps

Site Visits

- June 19th
- June 20th

Visited the Abalone Cove area of the overall Palos Verdes Drive South Landslide area. Inspected surface drainage systems, dewatering and monitoring wells, and surface conditions.

Photos from Site Visits (June 19, 2013 Site Visit:)

Abalone Cove Area:



Review of Provided Data/Reports

- 2012 Landslide Mitigation Workshop Presentation
Determined: Types of landslide mitigation infrastructure present in City, ground/surface conditions and the effects of rainfall, number of dewatering and monitoring wells and the production amounts of dewatering wells, significant landslides in recent years (Paseo Del Mar) and planned/recommended improvements to landslide mitigation infrastructure.

Preliminary Evaluation

Evaluation Criteria:

- Capacity of Infrastructure
As it relates to landslide prevention
- Structural Condition of Infrastructure
As it relates to operation and maintenance
- Environmental Sustainability of Infrastructure
As it relates to preserving the natural landscape and wildlife when operating, maintaining, and improving landslide mitigation infrastructure

Preliminary Evaluation (cont.)

"Draft" Grades

Capacity of Infrastructure: **D (60%)**

Structural Condition of Infrastructure: **D (64%)**

Environmental Sustainability of Infrastructure: **C (74%)**

Overall Grade: D (66%)

Progress Meeting

July 30, 2013 and August 8, 2013

Progress Meeting were held on above dates.

Data Evaluation and "Draft" Grades were discussed with City staff. Current condition of landslide mitigation system was discussed. Data presented in 2012 presentation was the most recent data the City had. Although some minor aspects of the landslide mitigation system may have changed slightly, the overall system were still lacking and CIP projects have not yet been implemented, due to the recent nature of the presentation. Funding concerns were also discussed, along with working together with other agencies.

Re-Evaluation of Landslide Mitigation Infrastructure, Report Preparation, and Final Grade Determination

Final Grade of Landslide Mitigation System, based on review of existing data, site visits, and discussions with City staff, is shown on spreadsheet breakdown on the following page:

Evaluation of Landslide Mitigation Infrastructure

Criteria 1: The capacity of infrastructure as it relates to landslide prevention

No.	Subcriteria	Score	Comments
1	Overall Coverage of Facilities	5	Insufficient coverage throughout City
2	Size/sufficiency of surface drainage lines	5	Only a small % require capacity upgrades
3	Redundancy of system	6	Multiple medium drains versus fewer large ones
4	Grading improvements	8	Recent grading improvements made
5	Cost of current or pending capacity improvements	6	Many improvements (new facilities) needed
Average Score		6	"D" Grade

Criteria 2: The structural condition of infrastructure as it relates to operation & maintenance

No.	Subcriteria	Score	Comments
1	Overall structural condition of facilities	6	Overall poor condition of facilities
2	Quantity of maintenance/structural problems	5	Facilities need continuous maintenance/adjustment
3	Severity of maintenance/structural problems	5	Piping discontinuous, wells in need of replacement, etc.
4	Safety concerns of structural/maintenance problems	5	Some torn/cut CMP along walking paths
5	Cost of structural/maintenance problems	5	Many repairs (to exist. facilities) needed
Average Score		5.2	"F" Grade

Criteria 3: The environmental sustainability of infrastructure as it relates to preserving the natural landscape and wildlife when operating, maintaining, and improving landslide mitigation infrastructure.

No.	Subcriteria	Score	Comments
1	Overall environmental utilization/optimization	6	Overall fair utilization/optimization
2	Location of facilities in relation to landscapes and aesthetic/visual qualities	7	Facilities not a significant eyesore
3	Use of natural features to extent practical	5	Natural Features (ground) are not feasible for use
4	Landslide facilities protect existing landscape improvements (man-made)	8	Facilities mostly located away from man-made landscape improvements
5	Cost of landscape improvements (man-made) due to faulty facilities	8	Facilities mostly located away from man-made landscape improvements
Average Score		6.8	"D" Grade

Total Average Score 6.0 "D" Grade

Final Grade: "D"

Facility No.:	P15
Facility Name:	Robert E. Ryan Community Park
Ocean View:	Yes
Facility Rentals:	Yes
Play Equipment Check-out:	Yes

Pathways and Trails:	Yes	No
Buildings	Yes	No



Buildings	
1 Community Building & Restrooms	

Other Amenities	Yes	No
1 Baseball Field	1	
2 Basketball Court	Yes	
3 Children's Play Equipment	Yes	
4 City Provided Barbecues	4	
5 Designated ADA Parking	3 spaces	
6 Drinking Fountains	Yes	
7 Multi-Purpose Grass Field	Yes	
8 On-Site Dirt Parking		No
9 On-Site Paved Parking	42	
10 Picnic Tables	10	
11 Public Pay Phones	Yes	
12 Public Restrooms	Yes	
13 Tennis Court/Paddle Court		No
14 Volleyball Court		No

Available Documents

1	1970 Ryan Park Development Plans
2	1993 Ryan Park Access Road Plans Draft
3	1995 Ryan Park Stairway Improvements
4	1996 Ryan Park Grading and Drainage
5	2001 Topographic Survey
6	2002 Ryan Park Improvements
7	2009 Verizon Installation at Ryan Park
8	2011 Ryan Park Field Improvements
9	2013 Ryan RR ADA & Improvement Plans

Facility No.:	P15
Facility Name:	Robert E. Ryan Community Park
Ocean View:	Yes
Pathways and Trails:	No

Condition:

1	Background Info	The City's first park was transferred from the County at the time of the City's incorporation in 1973
	Year Built	
	Last Renovation/Improvement	2013 ADA compliance completed
2	Any Recent Work	
3	Any Scheduled Future Work	(1) FY13/14 Budget: Ryan Park Parking Lot: This project will include widening the upper parking lot to provide additional parking and space for bus drop-off, as well as connection of the upper parking lot to the lower parking lot. The project will be funded with Quimby money. (\$400,000) (2) FIBER OPTIC CABLING: HESSE/RYAN PARK This project includes the installation of fiber optic cabling for the City's phone and information network between City facilities within the public right-of-way which will run adjacent to Ryan Park and directly on to Hesse Park. Total amount: \$320,000 (Year 1: \$60,000, Year 2: \$260,000)

Capacity

1	Area (acre)	11
2	Type of Use	Active park
3	Parking	More parking spaces required. Upper park improvements is scheduled in FY13/14

Operation & Maintenance

1	Maintenance Program	Maintained through the City's maintenance program for parks. About \$1.3M
2	\$/year Future	for parks, trails, and open spaces.

Security & Safety

1	Safety Incidents/Accidents	None reported
2	Any Injuries/Law Suits	

Grading

Grading	Grading Criteria
A 90-100%	The site visit showed the park in a very good condition. Field improvements completed in 2011. ADA improvements completed in 2013. Upper parking improvements scheduled in FY13/14 budget.
B 80-89%	
C 70-79%	
D 41-69%	
F 40% or Lower	



City of Rancho Palos Verdes

2013 Infrastructure Report Card

Evaluation of Right of Way and Traffic Devices



Evaluation Strategy

Grading Shall be the Opinion of the Consultant Based on the Following Approach:

- Meet with City Staff (Kickoff Meeting)
- Gather Required Information (i.e. Data, Reports, etc)
- Visit Various Facility Sites
- Review Provided Information
- Evaluate Current Infrastructure Condition and Determine "Draft" Grade
- Discuss Analysis of Data and Obtain Written and Verbal Elaborations on Current Infrastructure Conditions from City Staff
(that Amend or Expand Written Report Data)
- Re-Evaluate Current Infrastructure Conditions and Draft Grade
(Based on Increased Understanding of Infrastructure Conditions from City Staff)
- Prepare Draft Report Summarizing the Infrastructure Conditions and Provide a Revised Grade (if Different from "Draft" Grade Above)
- Meet with City to Review Draft Report & Obtain Comments from City Staff
- Finalize Report Based on Comments from City and Provide Final Grade

Kickoff Meeting with City Staff

- June 12, 2013
- Attendees:
 - Siamak Motahari
 - Bindu Vaish
 - Nicole Jules
 - Ron Dragoo
 - Andy Winje
 - Nadia Carasco
- Nicole Jules Provided Information on The Traffic & Right of Way System Following the Kickoff Meeting.

Data/Information Evaluated

- 2013 PCI Street Map
- 2013 PCI Report Spreadsheets
- 2009 Pavement Management System Report
- 2008 Traffic Calming Program
- 2011-2012 Traffic Analysis Report
- Capital Improvements Projects List (unfunded projects)
- Conceptual Bikeways Plan

Site Visits

- June 20th
 - Drove through various streets throughout City.

Photos from Site Visits (June 20, 2013 Site Visit:)

Various Streets



Review of Provided Data/Reports

- **2009 Pavement Management System Report**
Determined: Overall aspects of traffic and right of way system, including pavement and sidewalk quantities, and the PCI and SI indexes of arterials and residential streets
41 miles of streets (105 mi of local streets; 36 mi of arterials)*
*23.5 million square feet of AC**; 3.3 million square feet of concrete sidewalk**; 627,435 square feet of medians***
- **2013 PCI Report Spreadsheets & Street Map**
Determined: Current condition of streets in the City
- **2008 Traffic Calming Program**
Determined: Different Levels of Traffic Calming tools, their use in the City, and associated costs
- **2011-2012 Traffic Analysis Report**
Determined: Traffic flows along PVD South, connecting streets, and the impact of future development

- **Conceptual Bikeways Plan**
Determined: Bikeway Classes throughout City, location of bikeways, and associated costs

Preliminary Evaluation

Evaluation Criteria:

- **Capacity of Infrastructure**
As it relates to traffic flows
- **Structural Condition of Infrastructure**
As it relates to drive-ability/ride ability, and operation & maintenance
- **Environmental Sustainability of Infrastructure**
As it relates to safety, promoting recreation, an aesthetic environment and preserving nature

Preliminary Evaluation (cont.)

"Draft" Grades

Capacity of Infrastructure: **A (92%)**

Structural Condition of Infrastructure: **B (86%)**

Environmental Sustainability of Infrastructure: **A (96%)**

Overall Grade: A (92%)

Progress Meeting

July 30, 2013 and August 8, 2013

Progress Meeting were held on above dates.

Data Evaluation and "Draft" Grades were discussed with City staff. Current condition of right of way/traffic system was discussed. Data presented in 2009 PMS Update was a little behind/outdated. Some portions of the streets had a lower PCI/SI index. A 2013 Update (Spreadsheets and Map) was provided for further evaluation. Funding concerns were also discussed.

Re-Evaluation of ROW/Traffic System, Report Preparation, and Final Grade Determination

Final Grade of ROW/Traffic System based on review of existing data, site visits, and discussions with City staff, is shown on spreadsheet breakdown below:

Evaluation of Right of Way and Traffic Devices			
Criteria 1: The capacity of infrastructure as it relates to traffic flows			
No.	Subcriteria	Score	Comments
1	Overall accessibility/drive-ability throughout City	9	Good accessibility throughout City
2	Width/Number of Lanes/Traffic Concerns	9	Traffic concerns only at certain times/days
3	Alternative Access Routes storm drain system	8	Not many feasible alternate routes due to landscape
4	Accessibility for cyclists and pedestrians	10	Multiple Class I, II, III bikeways available
5	Cost of current or pending capacity improvements	9	No widening projects anticipated
Average Score		9.0	"A" Grade
Criteria 2: The structural condition of infrastructure as it relates to drive-ability/ride ability, and operation & maintenance			
No.	Subcriteria	Score	Comments
1	Overall structural condition of roadways	9	Overall great condition of roadways
2	Quantity of structural condition problems	8	Small amount of structural needs
3	Severity of structural/condition problems	8	Mostly general cracking/deterioration
4	Safety concerns of structural/maintenance problems	9	No major potholes/safety hazards
5	Cost of structural/maintenance problems	8	Moderate to major improvements anticipated
Average Score		8.4	"B" Grade
Criteria 3: The environmental sustainability of infrastructure as it relates to safety, promoting recreation, an aesthetic environment and preserving nature			
No.	Subcriteria	Score	Comments
1	Overall environmental conditions/utilization	10	Overall excellent environmental conditions
2	View/Scenery of local streets and arterials	10	Excellent view/scenery
3	Landscaping improvements along roadways	10	Great landscape planning/maintenance
4	Debris/trash/graffiti/etc on or adjacent to roadways	9	Little to no debris/trash/graffiti noticed
5	Cost of cleaning/maintenance	9	City routinely cleans and inspects
Average Score		9.6	"A" Grade
Total Average Score		9.0	"A" Grade

Final Grade: "A"



City of Rancho Palos Verdes

2013 Infrastructure Report Card

Evaluation of Sanitary Sewer System and Abalone Cove District Sewer System



Evaluation Strategy

Grading Shall be the Opinion of the Consultant Based on the Following Approach:

- Meet with City Staff (Kickoff Meeting)
- Gather Required Information (i.e. Data, Reports, etc)
- Visit Various Facility Sites
- Review Provided Information
- Evaluate Current Infrastructure Condition and Determine "Draft" Grade
- Discuss Analysis of Data and Obtain Written and Verbal Elaborations on Current Infrastructure Conditions from City Staff
(that Amend or Expand Written Report Data)
- Re-Evaluate Current Infrastructure Conditions and Draft Grade
(Based on Increased Understanding of Infrastructure Conditions from City Staff)
- Prepare Draft Report Summarizing the Infrastructure Conditions and Provide a Revised Grade (if Different from "Draft" Grade Above)
- Meet with City to Review Draft Report & Obtain Comments from City Staff
- Finalize Report Based on Comments from City and Provide Final Grade

Kickoff Meeting with City Staff

➤ June 12, 2013

➤ Attendees:

Siamak Motahari
Bindu Vaish
Nicole Jules
Ron Dragoo
Andy Winje
Nadia Carasco

➤ Ron Dragoo and Andy Winje Provided Information on The Overall Sewer System and the Abalone Cove District Sewer System Following the Kickoff Meeting.

Data/Information Evaluated

- 2009 Master Plan Update (Report)
- 2009 County Condition Assessment (partial)
- Abalone Cove Sewer Maintenance Fee Annual Reports (2010-2013)

Site Visits

- June 19th
- September 24th

Visited Various Sewer Sites throughout City

Photos from Site Visits (June 19, 2013 Site Visit:)

Calle Entradero Sewer Station



Abalone Cove District Facilities



Photos from Site Visits (September 24, 2013 Site Visit:)

Calle Entradero Sewer Station



Laurel Drive Sewer Station



Review of Provided Data/Reports

- 2009 Master Plan Update (Report)
Determined: Overall aspects of sewer system (150 miles of sewer lines; 3,707 manholes), land topography, number of lift stations, age of pipes, material of pipes, and planned CIP improvements
- 2009 County Condition Assessment (partial)
Determined: Condition of pipes in a portion of the overall sewer system
- Abalone Cove Sewer Maintenance Fee Annual Reports (2010-2013)
Determined: Annual maintenance costs of Abalone Cove sewer system (i.e. \$93,300 for 2013)

Preliminary Evaluation

Evaluation Criteria:

- Capacity of Infrastructure
As it relates to transmission of wastewater flows
- Structural Condition of Infrastructure
As it relates to operation and maintenance
- Environmental Sustainability and Safety of Infrastructure
As it relates to ensuring sanitary conditions and an aesthetic City landscape

Preliminary Evaluation (cont.)

"Draft" Grades

Overall Sewer System

Capacity of Infrastructure: **C (78%)**

Structural Condition of Infrastructure: **D (62%)**

Environmental Sustainability of Infrastructure: **C (77%)**

Overall Grade: C (72%)

Abalone Cove Sewer System

Capacity of Infrastructure: **C (78%)**

Structural Condition of Infrastructure: **D (66%)**

Environmental Sustainability of Infrastructure: **B (76%)**

Overall Grade: C (71%)

Progress Meeting

July 30, 2013 and August 8, 2013

Progress Meeting were held on above dates.

Data Evaluation and "Draft" Grades were discussed with City staff. Current condition of overall sanitary sewer system and Abalone Cove District sewer

system were discussed. Data presented in 2009 Master Plan Update was general but not very specific. Some portions of the sewer system were still lacking and some CIP projects have not yet been implemented. Funding concerns were also discussed, especially with the Abalone Cove District Sewer System (O&M Costs were very high), along with the current user fee status.

Re-Evaluation of Sewer System, Report Preparation, and Final Grade Determination

Final Grade of Sewer System based on review of existing data, site visits, and discussions with City staff, is shown on spreadsheet breakdown on the following page:

Evaluation of Sewer System

Criteria 1: The capacity of infrastructure as it relates to transmission of wastewater flows

<u>No.</u>	<u>Subcriteria</u>	<u>Score</u>	<u>Comments</u>
1	Overall Coverage of Sewer Facilities	8	Good coverage throughout City
2	Size/sufficiency capacity of sewer lines	8	Only a small % require capacity upgrades
3	Redundancy of sewer lines	8	Over 1 foot of sewer per foot of roadway
4	Capacity & Efficiency of Lift Stations	8	Good capacity/efficiency
5	Cost of current or pending capacity improvements	5	City has made 1.3 mi of improvements since 04
Average Score		7.4	"C" Grade

Criteria 2: The structural condition of infrastructure as it relates to operation & maintenance

<u>No.</u>	<u>Subcriteria</u>	<u>Score</u>	<u>Comments</u>
1	Overall structural condition of sewer facilities	7	Some maintenance/structural deficiencies
2	Quantity of maintenance/structural problems	6	Moderate # of maintenance/structural need locations
3	Severity of maintenance/structural problems	6	No gasketed joints/root intrusion & cracking
4	Safety concerns of structural/maintenance problems	6	Potential for sewer backups/spills (5 spills in 2009)
5	Cost of structural/maintenance problems	5	Costs are moderate over the near term
Average Score		6.0	"D" Grade

Criteria 3: The environmental sustainability & safety of infrastructure as it relates to ensuring sanitary conditions and an aesthetic City landscape

<u>No.</u>	<u>Subcriteria</u>	<u>Score</u>	<u>Comments</u>
1	Overall aesthetic/environmental utilization/enhancement	8	Overall good utilization/enhancement
2	Safety design/location of sewer facilities/manholes	6	Overall Decent
3	Slope of sewer lines for proper scour/cleaning velocity	9	Good slope/flow velocity
4	Odor Concerns/Problems	8	Master Plan does not specifically mention "odor"
5	Cost of cleaning/maintenance	6	City routinely cleans and inspects
Average Score		7.4	"C" Grade

Total Average Score	6.9	"D" Grade
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Final Grade: "D"

Evaluation of Abalone Cove Sewer System

Criteria 1: The capacity of infrastructure as it relates to transmission of wastewater flows

No.	Subcriteria	Score	Comments
1	Overall Coverage of Sewer Facilities	9	Good coverage throughout City
2	Size/sufficiency capacity of sewer lines	8	Only a small % require capacity upgrades
3	Redundancy of sewer lines	7	Decent Redundancy
4	Capacity of Lift Stations	8	Good capacity
5	Cost of current or pending capacity improvements	5	Abalone Cove Requires consistent maintenance
Average Score		7.4	"C" Grade

Criteria 2: The structural condition of infrastructure as it relates to operation & maintenance

No.	Subcriteria	Score	Comments
1	Overall structural condition of sewer facilities	7	Some maintenance/structural deficiencies
2	Quantity of maintenance/structural problems	6	Moderate # of maintenance/structural need locations
3	Severity of maintenance/structural problems	8	No gasketed joints/root intrusion & cracking
4	Safety concerns of structural/maintenance problems	6	Potential for sewer backups/spills
5	Cost of structural/maintenance problems	5	Abalone Cove Requires consistent maintenance
Average Score		6.4	"D" Grade

Criteria 3: The environmental sustainability & safety of infrastructure as it relates to ensuring sanitary conditions and an aesthetic City landscape

No.	Subcriteria	Score	Comments
1	Overall environmental utilization/enhancement	6	Overall decent utilization/enhancement
2	Safety design/location of sewer facilities/manholes	7	Overall Decent
3	Slope of sewer lines for proper scour/cleaning velocity	7	Moderate slope/flow velocity
4	Odor Concerns/Problems	8	Master Plan does not mention "odor"
5	Cost of cleaning/maintenance	5	City routinely cleans and inspects
Average Score		6.6	"D" Grade

Total Average Score	6.8	"D" Grade
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Final Grade: "D"



City of Rancho Palos Verdes

2013 Infrastructure Report Card

Evaluation of Storm Water System



Evaluation Strategy

Grading Shall be the Opinion of the Consultant Based on the Following Approach:

- Meet with City Staff (Kickoff Meeting)
- Gather Required Information (i.e. Data, Reports, etc)
- Visit Various Facility Sites
- Review Provided Information
- Evaluate Current Infrastructure Condition and Determine "Draft" Grade
- Discuss Analysis of Data and Obtain Written and Verbal Elaborations on Current Infrastructure Conditions from City Staff
(that Amend or Expand Written Report Data)
- Re-Evaluate Current Infrastructure Conditions and Draft Grade
(Based on Increased Understanding of Infrastructure Conditions from City Staff)
- Prepare Draft Report Summarizing the Infrastructure Conditions and Provide a Revised Grade (if Different from "Draft" Grade Above)
- Meet with City to Review Draft Report & Obtain Comments from City Staff
- Finalize Report Based on Comments from City and Provide Final Grade

Kickoff Meeting with City Staff

➤ June 12, 2013

➤ Attendees:

Siamak Motahari
Bindu Vaish
Nicole Jules
Ron Dragoo
Andy Winje
Nadia Carasco

➤ Ron Dragoo and Andy Winje Provided Information on The Storm Drain System Following the Kickoff Meeting.

Data/Information Evaluated

- 2004 Master Plan of Drainage Update (Report)
- 2004 Master Plan of Drainage Update (Atlas Maps)
- 1999 Storm Drain Priority Lists Spreadsheets
- 2011 Drainage Master Plan Development Program
- Current GIS Data (Spreadsheet Data)

Site Visits

- June 19th
- June 20th

Visited Various Storm Drain Sites in Ocean South and Ocean West Drainage areas along Palos Verdes Drive South, Including McCarrell Canyon Storm Drain.

Photos from Site Visits (June 19, 2013 Site Visit:)

Drainage Facilities Near Pacifica Del Mar



McCarrell Canyon Facilities



Photos from Site Visits (Cont. -June 19, 2013 Site Visit:)

McCarrell Canyon Facilities



Drainage Facilities in Abalone Cove



San Ramon Canyon Stormwater Flood Reduction Project



Photos from Site Visits (Cont. -June 19, 2013 Site Visit:)

San Ramon Canyon Stormwater Flood Reduction Project



Review of Provided Data/Reports

- **2004 Master Plan of Drainage (Report)**
Determined: Overall aspects of drainage system, land topography, drainage areas/basins, hydrology, and planned CIP improvements
- **2004 Master Plan of Drainage (Atlas Maps)**
Determined: 8 Discharge outlets to Ocean
- **Current GIS Data (Spreadsheets)**
Determined: 12 miles of SD lines
(3.4 mi of CMP; 7.2 mi of RCP/RCB; 0.4 mi of Steel; 0.3 mi of SRP; 0.1 mi of ACP; 0.6 mi "other")

Preliminary Evaluation

Evaluation Criteria:

- **Capacity of Infrastructure**
As it relates to flood prevention
- **Structural Condition of Infrastructure**
As it relates to operation and maintenance
- **Environmental Sustainability of Infrastructure**
As it relates to preserving the natural landscape and wildlife when operating, maintaining, and improving stormwater infrastructure

Preliminary Evaluation (cont.)

"Draft" Grades

Capacity of Infrastructure: **B (84%)**

Structural Condition of Infrastructure: **C (74%)**

Environmental Sustainability of Infrastructure: **B (84%)**

Overall Grade: B (81%)

Progress Meeting

July 30, 2013 and August 8, 2013

Progress Meeting were held on above dates.

Data Evaluation and "Draft" Grades were discussed with City staff. Current condition of storm water system was discussed. Data presented in 2004 Drainage Update was a little behind/outdated. Some portions of the storm water system were still lacking and some CIP projects have not yet been implemented. Funding concerns were also discussed, along with the current user fee status.

Re-Evaluation of Storm Water System, Report Preparation, and Final Grade Determination

Final Grade of Storm Water System based on review of existing data, site visits, and discussions with City staff, is shown on spreadsheet breakdown on the following page:

Evaluation of Storm Drain System

Criteria 1: The capacity of infrastructure as it relates to flood prevention

No.	Subcriteria	Score	Comments
1	Overall Coverage of Drainage Facilities	8	Good coverage throughout City
2	Size/sufficiency of storm drain lines	9	Only a small % require capacity upgrades
3	Redundancy of storm drain system	8	Multiple medium drains versus fewer large ones
4	Culvert coverage on major streets	8	Good coverage on PVDS
5	Cost of current or pending capacity improvements	7	City has made 1.3 mi of improvements since 04
Average Score		8	"B" Grade

Criteria 2: The structural condition of infrastructure as it relates to operation & maintenance

No.	Subcriteria	Score	Comments
1	Overall structural condition of drainage facilities	8	Overall decent condition of facilities
2	Quantity of maintenance/structural problems	6	Moderate among of structural needs
3	Severity of maintenance/structural problems	8	Mostly spot repairs needed; not full replacement
4	Safety concerns of structural/maintenance problems	7	Some torn/cut CMP along roadways/bike paths
5	Cost of structural/maintenance problems	8	City routinely checks and repairs damaged pipes
Average Score		7.4	"C" Grade

Criteria 3: The environmental sustainability of infrastructure as it relates to preserving the natural landscape and wildlife when operating, maintaining, and improving stormwater infrastructure.

No.	Subcriteria	Score	Comments
1	Overall environmental utilization/optimization	9	Overall great utilization/enhancement
2	Location of drainage facilities in relation to landscapes	9	Drainage facilities blend in (not eyesore)
3	Use of natural features to extent practical	9	Great use of natural channels/canyons
4	Drainage improvements protect existing landscapes	8	Drains both protect and affect landscapes
5	Cost of cleaning/maintenance	7	City routinely cleans and inspects
Average Score		8.4	"B" Grade

Total Average Score 7.9 "C" Grade

Final Grade: "C"

Part I: Summary of Non – Preserve Trails
Existing Non-Preserve Trails Currently Maintained by the City

RANCHO PALOS VERDES TRAILS			LENGTH (ft)
1	Crest Ranch Trail		500
2	Crooked Patch Trail		3600
3	East Crest Road Trail		400
4	Forrestal Road Extension Trail		500
5	Gaucha Trail		20
6	Kajima Trail		200
7	Ladera Linda Walking Trail		300
8	McBride Trail		5550
9	Martingale Trail		100
10	Portuguese Point Trail		600
11	Pt. Vicente Stairway		100
12	S & S Overlook & Trail		300
13	Seascape Trail		1200
14	Tramonto Trail		400
15	Vanderlip Trail		1500
16	Wallace Ranch Trail		100

Total length: 15,370 ft
2.91 miles

1993 Conceptual Trails Plan Summary:

To simplify the reference and review process, the City of Rancho Palos Verdes has been divided into five geographic areas, and the Conceptual Trails Plan has been written in five corresponding sections. However, there are five trail systems (made up of a series of trail segments) which are found in more than one geographic area of the City. In order to more easily identify these trail systems within each section of the document, each larger trail system is denoted by a letter:

- "A": Palos Verdes Loop Trail
- "B": Top-of-the-Hill Trail System
- "C": Palos Verdes Drive Trail System
- "D": Coastal Bluff Trail System
- "E": Coastal Access Trails

The Palos Verdes Loop Trail, if fully implemented, would create a continuous loop around the Peninsula, passing through the Cities of Rancho Palos Verdes, Rolling Hills Estates, and Palos Verdes Estates. Since this is a Peninsula-wide trail system, it should have a unique signage program, to distinguish it from other City trails, such as a unique color scheme, design, and/or logo.

Trails that are denoted with the letters "F" through "L" are either single trail segments that do not connect to any other trails, or they are part of a trail system that is only found in that particular geographic area of the City.

Geographic Section	Trail System											
	A Palos Verdes Loop	B Top-of-the-Hill	C Palos Verdes Drive	D Costal Bluff	E Coastal Access	F	G	H	I	J	K	L
Section 1	1 Christmas Tree Cove Segment 2 Seascape 3 Sunset 4 Baby's Breath 4 City Hall 6 Salvation Army 7 Seahill	--	1 Christmas Tree Cove 2 Golden Cove 3 Sea Lavender 4 Point Vicente 5 Marineland 6 Condo	1 Sunset Trail 2 Interpretive Center Trail 3 Point Vicente 4 Long Point 5 Vanderlip Park	1 Terrace 2 Flower Field	1 Lunada Canyon 2 Hesse Park 3 Indian Valley 4 Agua Amarga Canyon	1 Point Vicente School 2 Celestial 3 West Crest 4 Clovercliff Park 5 Indian Rock	1 Hawthorne 2 Vallon 3 Sunset Ridge		1 Vista Trail 2 Cafe		
Section 2	--	1 Indian Peak 2 Crestridge 3	--	--	--	Peninsula Center Trails 1 Old Eucalyptus 2 Radio Tower 3 Crest Gatehouse 4 The Lunchbreak 5 Browndeer 6 Robinview	Valmonte Trail System 1 Valmonte Canyon 2 Birchfield	Malaga Canyon Trail System 1 Finecrest Segment 2 Cityview segment 3 Campesina segment 4 Mossbank Trail 5 Grayslake Trail		Grandview Park Trails 1 Grandview Perimeter 2 Wildbriar Trail	Wallace Ranch Trail	

Geographic Section	Trail System											
	A Palos Verdes Loop	B Top-of-the-Hill	C Palos Verdes Drive	D Costal Bluff	E Coastal Access	F	G	H	I	J	K	L
Section 3	8 Three Sisters	1 Crooked Patch	7 Tarragon	6 Connecting Link	3 Abalone Cove Access Trail	Crest Road Trail System 1 Crest Ranch Trail	Collector/Radial Trails 1 Kajima Trail 2 Crenshaw Blvd Trail 3 Pollywog Bog Trail	Top-Of-The-Hill Trail System-Loop Trail Connectors 1 McCarrel Canyon 2 Jack's Hat 3 Rattlesnake 4 Eagle's Nest 5 Lemonade Berry Bush 6 Ishibashi 7 Paintbrush		Collector/Radial Trails 1 Barkentine Trail 2 Annie's Flower Stand 3 Zote's Cutacross 4 Peacock 5 Portugues e Canyon 6 Klondike 7 Farmers	Portugu ese Bend residenti al Commu nity Trail System 1 Charlotte' s Hill 2 Pony Trail 3 Bean Field Trail	Forrest al Quarry System 1 Fossil Trail 2 Crystal Trail 3 Quarry Bowl 4 Flying Mane
	9 Vanderlip	2 McBride	8 Wayfarers	7 Portuguese Point Access Trail	4 Sacred Cove Access Trail							
	10 Crenshaw	3 Del Cerro	9 Francesca	8 Wayfarers Trail	5 Inspiratio n Point Trail							
	11 Badlands	4 Dirt Crenshaw	10 Gabion	9 Portuguese Cove								
	12 Intrepid	5 Fire Station	11 Club	10 Connecting Link								
	13 Packsaddle											
	14 Stalwart											
	15 Pirate											
	16 Ganado											
Section 4	17 Radar Dome		12 Conqueror	11. Halfway point	6 Del Mar	Switchbac k Slopes Trail 1 Heroic 2 Seaclaire 3. Switchback 4 Friendship Park	Collector/Radial Trails 1 Forrestal Trail 2 Marymoun t Trail 3 Wanderer 4 Camelia 5 Water Tank	Miraleste Trail System 1 Colinita 2 Lorraine 3 Nancy 4 San Pedro				
	18 East Crest		13 Aqua Vista	12 Bluff Top	7 Signal Test							
	19 Upper Miraleste Canyon		14 Seacliff	13 Cliff Top								
	20 Crownview		15 Rotunda	14 Park								
			16 Shoreline	15 South Shores								

Geographic Section	Trail System											
	A Palos Verdes Loop	B Top-of-the-Hill	C Palos Verdes Drive	D Costal Bluff	E Coastal Access	F	G	H	I	J	K	L
Section 5	21 High School	--	18 Upper Palos Verdes Drive East	--	--	Georgette-George F Canyon Trail System 1 The Gap 2 Bronco 3 Georgette canyon 4 Cayuse Canyon 5 Cayuse Neighborhood Access 6 Redhead 7 Headland Neighborhood Access 8 Sunnyside Ridge 9 Bronco Roadside Loop 10 Martingale Trail	Eastfield Gate Trail System 1 Paper 2 Old Wiley 3 Hunter Trail	Dodson Canyon Trail System 1 Upper Dodson canyon 2 Lower Dodson canyon		Colt Canyon Trail System 1 Colt Trail 2 Saddle 3 Louise	Collector/Radial Trails 1 Stonegate Cutacross 2 The Gaucha Cutacross 3 Sparta Neighborhood Access Link	
	22 Library											
	23 Clevis											
	24 English											
	25 Goldenspur											
	26 Dodson Canyon											
	27 Sol Vista											
	28 Sunnyside											
	29 Deadman's Curve											
Totals	29	7	18	15	7	25	22	21		14	7	4
Total No. of Trails (as per 1993 Conceptual Trails Plan) = 169 trails (length not available) ----- Currently Maintained by the City ----- In CIP Plan												

Part II: Summary of Preserve Trails
From Council Adopted PUMP Document dated April 2nd, 2013

Name of Reserve	No. of Trails	Existing/Non Existing	Length in Miles	Use
1• Vista del Norte Reserve	2	Existing	0.56	Pedestrian
2• Agua Amarga Reserve	1	Existing	0.60	Pedestrian/Bicycle
3• Alta Vicente Reserve	5	Existing	1.67	4 Multipurpose (Pedestrian, Equestrian and Bicycle) 1 Pedestrian/ Equestrian Only
4• Vicente Bluffs Reserve	5	Existing	2.2	Pedestrian
5• Abalone Cove Reserve	15	Only 0.10 Mile Non-Existing	3.49	9 Pedestrian Only 4 Pedestrian/Bicycles 2 Multipurpose
6• Ocean Trails Reserve	12	Existing	3.43.	6 Pedestrian Only 6 Pedestrian & Bicycle
7• San Ramon Reserve	5	3 Existing, 2 TBD	0.82	All existing & future are Pedestrian & Bicycle
8• Forrestal Reserve	21	Only 0.12 Mile Non-Existing	3.93	10 Multipurpose 3 Pedestrian & Bicycle 6 pedestrian only, and 2 Pedestrian & equestrian
9• Portuguese Bend Reserve	23	Existing	9.87	12 Pedestrian & Equestrian, 11 Multipurpose
10• Filiorum Reserve	8	Existing	3.76	5 Multipurpose, 3 Pedestrian/Equestrian
11• Three Sisters Reserve	4	Existing	1.76	all Multipurpose
Total 11 Reserves	101 Trails		28.66 miles	

Detailed List

Preserve Map

At this time, the Preserve is approximately 1,367 acres in area, consisting of several parcels owned (or to be owned) by the City and one parcel owned by the PVPLC. For management purposes, the Preserve is broken down into the following 11 sub-areas referred to as "Reserves":

1• Vista del Norte Reserve(0.56 Miles, 2 trails, Pedestrian)

- o The 16.7 acre Crestridge property

2• Agua Amarga Reserve (0.60 Miles, 1 trail, Pedestrian/Bicycle)

- o The 20 acre Lunada Canyon property owned by the PVPLC
- o The 38.9 acre Agua Amarga Canyon property

3• Alta Vicente Reserve (1.67 Miles, 5 trails, All Pedestrian, Equestrian and Bicycle, except one trail: Prickly Pear Trail No Bicycle)

- o A 51.3 acre portion of the 73.3 acre Upper Point Vicente property

4• Vicente Bluffs Reserve (2.20 Miles, 5 trails, Pedestrian)

- o A 52.6 acre portion of the 71.5 acre Ocean Front Estates property
- o A 4.5 acre portion of the 27.4 acre Lower Point Vicente property
- o A 7.5 acre portion of the 10.5 acre Pelican Cove property

5• Abalone Cove Reserve (3.49 Miles, 15 Trails)

9 Pedestrian Only

4 Pedestrian & Bicycles (Via De Camp, Olmstead, Lower Section of Beach Trail, and Portuguese point Loop

2 Multipurpose: Chapel View & Upper Section of Beach School Trails

- o A 63.2 acre portion of the 80.0 acre Abalone Cove property
- o The 39.9 acre portion of the 45.1 coastal property formally owned by the RDA

6• Ocean Trails Reserve (3.43 Miles, 12 Trails)

6 Pedestrian Only

6 Pedestrian & Bicycle

- o A 66.3 acre portion of the 78.8 acre Trump National property (eventually to be owned by the City)
- o A 47.4 acre portion of the 52.8 acre Shoreline Park property

7• San Ramon Reserve (5 trails, 3 existing, 2 TBD, existing 0.82 Miles. All existing & future are Pedestrian & Bicycle)

- o The 94.5 acre Switchback property

8• Forrestal Reserve (21 trails, 3.93 miles, 10 Multipurpose, 3 Pedestrian & Bicycle, 6 pedestrian only, and 2 Pedestrian & equestrian)

- o The 154.9 acre Forrestal property

9• Portuguese Bend Reserve (23 trails, 9.87 miles, 12 Pedestrian & Equestrian, 11 Multipurpose)

- o A 398.7 acre portion of the 423.9 acre Portuguese Bend property
- o The 17.4 acre Del Cerro buffer property

10• Filiorum Reserve (8 trails, 3.76 miles, 5 Multipurpose, 3 Pedestrian, Equestrian)

- o The 190 acre Filiorum property

11• Three Sisters Reserve (4 trails, 1.76 Miles, all Multipurpose)

- o The 98.5 acre Barkentine property

Trails Details

1. VISTA DEL NORTE RESERVE EXISTING

Trail Name	Pedestrian	Equestrian	Bicycle	Miles	Existing
Indian Peak Loop Trail	Yes	No	No	0.38	Yes
Vista del Norte Trail	Yes	No	No	0.19	Yes

There are no public restroom facilities or drinking fountains available at this Reserve.

2. AGUA AMARGA RESERVE EXISTING

Trail Name	Pedestrian	Equestrian	Bicycle	Miles	Existing
Lunada Canyon Trail	Yes	No	Yes	0.60	Yes

Restroom facilities and drinking fountains are not available at this Reserve.

3. ALTA VICENTE RESERVE EXISTING

Trail Name	Pedestrian	Equestrian	Bicycle	Miles	Existing
Alta Vicente Trail	Yes	Yes	Yes	1.04	Yes
North Spur Trail	Yes	Yes	Yes	0.12	Yes
South Spur Trail	Yes	Yes	Yes	0.05	Yes
Nike Trail	Yes	Yes	Yes	0.10	Yes
Prickly Pear Trail	Yes	Yes	No	0.36	Yes

A public restroom facility (portable bathroom) is available at the Civic Center Campus, west of the tennis courts. During regular business hours, a public restroom facility is also available at City Hall. A drinking fountain is available at the Civic Center campus next to the south lawn.

4. VICENTE BLUFFS RESERVE EXISTING

Trail Name	Pedestrian	Equestrian	Bicycle	Miles	Existing
Golden Cove Trail (California Coastal Trail)	Yes	No	No	0.95	Yes
Seascape Trail (California Coastal Trail)	Yes	No	No	0.58	Yes
Terrace Trail	Yes	No	No	0.23	Yes
Interpretative Trail (California Coastal Trail)	Yes	No	No	0.31	Yes
Tomevor Trail	Yes	No	No	0.14	Yes

Restroom facilities are available at Lower Point Vicente at the Interpretative Center and at the Pelican Cove parking lot. Additionally, a portable bathroom is available at the north end of the Golden Cove Trail adjacent to the public parking lot at Ocean Front Estates. Drinking fountains are available at the Point Vicente Interpretative Center and at Pelican Cove adjacent to the restroom facilities.

5. ABALONE COVE RESERVE **EXISTING (Only 0.10 Mile Non-Existing)**

Trail Name	Pedestrian	Equestrian	Bicycle	Miles	Existing
Via de Campo (California Coastal Trail)	Yes	No	Yes	0.33	Yes
Chapel View Trail	Yes	Yes	Yes	0.17	Yes
Abalone Cove Trail (California Coastal Trail)	Yes	No	No	0.20	Yes
Beach School Trail (Upper Section) (California Coastal Trail)	Yes	Yes	Yes	0.13	Yes
Beach School Trail (Lower Section)	Yes	No	Yes	0.27	Yes
Sea Dahlia Trail (California Coastal Trail)	Yes	No	No	0.23	Yes
Olmstead Trail (California Coastal Trail)	Yes	No	Yes	0.44	Yes
Portuguese Point Loop Trail (California Coastal Trail)	Yes	No	Yes	0.28	Yes
Smugglers Trail (California Coastal Trail)	Yes	No	No	0.10	No
Cave Trail	Yes	No	No	0.07	Yes
Sacred Cove View Trail (California Coastal Trail)	Yes	No	No	0.47	Yes
Cliffside Trail	Yes	No	No	0.10	Yes
Inspiration Point Trail (California Coastal Trail)	Yes	No	No	0.18	Yes
Bow and Arrow Trail (California Coastal Trail)	Yes	No	No	0.55	Yes
Archery Coastal Trail	Yes	No	No	0.06	Yes

Restroom facilities are available at the Abalone Cove Shoreline Park at the parking lot grounds. Portable restrooms are located at Abalone Cove beach adjacent to the tide pools, along Palos Verdes Drive South adjacent to the Sacred Cove Trailhead, and at the archery club. Drinking fountains are available at the Abalone Cove Shoreline Park and off the Beach School Trail adjacent to the nursery school building.

6. OCEAN TRAILS RESERVE **EXISTING**

Trail Name	Pedestrian	Equestrian	Bicycle	Miles	Existing
West Portal Trail (California Coastal Trail)	Yes	No	No	0.12	Yes
West Bluff Trail (California Coastal Trail)	Yes	No	No	0.07	Yes
Sunset Trail	Yes	No	No	0.15	Yes
Sunrise Trail (California Coastal Trail)	Yes	No	No	0.25	Yes
Catalina Trail (West segment) (California Coastal Trail)	Yes	No	Yes	0.45	Yes
Catalina Trail (East segment) (California Coastal Trail)	Yes	No	No	0.57	Yes
Dudleya Trail	Yes	No	No	0.08	Yes
Coastal Switchback Trail	Yes	No	No	0.19	Yes
Sagebrush Walk Trail (California Coastal Trail)	Yes	No	Yes	0.12	Yes
Southshore Coastal Trail	Yes	No	No	0.07	Yes
Gnatcatcher Trail	Yes	No	Yes	0.27	Yes
Shoreline Park Trail	Yes	No	Yes	0.57	Yes
East Boundary Trail (California Coastal Trail)	Yes	No	Yes	0.32	Yes
Access Trails to Catalina and Gnatcatcher Trail	Yes	No	No	0.20	Yes

A public restroom facility is available at the basement level of the Trump National Club House and adjacent to the public parking lot at the end of La Rotunda Drive. A drinking fountain is available at the basement level of the Trump National Club House, at Founders Park, and next to the public restrooms at the end of La Rotunda.

7. SAN RAMON RESERVE **3 EXISTING and two trails (miles TBD) non-existing**

Trail Name	Pedestrian	Equestrian	Bicycle	Miles	Existing
San Ramon Trail	Yes	No	Yes	TBD	No
Lower Palos Verdes Drive East Trail	Yes	No	Yes	0.23	Yes
Marymount Trail	Yes	No	Yes	0.23	Yes
Switchback Trail (West segment)	Yes	No	Yes	0.36	Yes
Switchback Trail (East segment)	Yes	No	Yes	TBD	No

There is no public restroom facility at this Reserve. A drinking fountain is available at the lower segment of the Marymount Trail adjacent to the bicycle racks off Palos Verdes Drive South.

8. FORRESTAL RESERVE **EXISTING (Only 0.12 Mile Non-Existing)**

Trail Name	Pedestrian	Equestrian	Bicycle	Miles	Existing
Forrestal Trail (West segment)	Yes	Yes	Yes	0.15	Yes
Forrestal Trail (East segment)	Yes	No	Yes	0.25	Yes
Quarry Trail	Yes	No	No	0.32	Yes
Docent Trail (off Fossil Trail)	Docent Only	No	No	0.06	Yes
Docent Walk Only (Off Quarry Trail)	Docent Only	No	No	0.07	Yes
Basalt Trail	Yes	Yes	Yes	0.05	Yes
Crystal Trail	Yes	Yes	No	0.12	No
Pirate Trail	Yes	No	Yes	0.30	Yes
Coolheights Trail	Yes	No	Yes	0.06	Yes
Cristo Que Viento Trail	Yes	No	No	0.22	Yes
Mariposa Trail	Yes	Yes	Yes	0.48	Yes
Flying Mane Trail	Yes	Yes	Yes	0.45	Yes
Packsaddle Trail	Yes	Yes	No	0.07	Yes
Canyon Trail	Yes	Yes	Yes	0.14	Yes
Red Tail Trail	Yes	No	Yes	0.05	Yes
Dauntless Trail	Yes	Yes	Yes	0.13	Yes
Conqueror Trail	Yes	Yes	Yes	0.23	Yes
Cactus Trail	Yes	Yes	Yes	0.11	Yes
Vista Trail	Yes	Yes	Yes	0.19	Yes
Exultant Trail	Yes	No	No	0.15	Yes
Purple Sage Trail	Yes	Yes	Yes	0.12	Yes
Intrepid Trail	Yes	Yes	Yes	0.15	Yes

Restroom facilities are available at the Ladera Linda Community Center and a port-a-potty is available at the soccer fields off Intrepid Drive. A drinking fountain is available at the Ladera Linda Community Center and off Forrestal Drive behind the entry gate across from the Quarry Bowl trail junction (adjacent to the wall enclosing the Verizon mechanical equipment).

9. PORTUGUESE BEND RESERVE EXISTING

Trail Name	Pedestrian	Equestrian	Bicycle	Miles	Existing
Klondike Canyon Trail	Yes	Yes	Yes	0.26	Yes
Barn Owl Trail	Yes	Yes	Yes	0.17	Yes
Panorama Trail	Yes	Yes	Yes	0.34	Yes
Sandbox Trail	Yes	Yes	Yes	0.18	Yes
North Sandbox Trail	Yes	Yes	No	0.13	Yes
Ishibashi Farm Trail (West segment)	Yes	Yes	Yes	0.27	Yes
Ishibashi Farm Trail (East segment)	Yes	Yes	No	0.20	Yes
Peppertree Trail	Yes	Yes	Yes	0.57	Yes
Landslide Scarp Trail	Yes	Yes	No	0.25	Yes
Garden Trail	Yes	Yes	No	0.25	Yes
Toyon Trail	Yes	Yes	Yes	0.15	Yes
Water Tank Trail	Yes	Yes	No	0.21	Yes
Vanderlip Trail	Yes	Yes	No	0.51	Yes
Kubota Trail	Yes	Yes	No	0.26	Yes
Burma Road Trail	Yes	Yes	Yes	2.17	Yes
Burma Road Overlook Trail	Yes	Yes	Yes	0.1	Yes
Rim Trail (upper segment)	Yes	Yes	No	0.77	Yes

Trail Name	Pedestrian	Equestrian	Bicycle	Miles	Existing
Rim Trail (lower segment)	Yes	No	No	0.23	Yes
Paintbrush Trail	Yes	Yes	No	0.34	Yes
Grapevine Trail	Yes	Yes	No	0.36	Yes
Fire Station Trail	Yes	Yes	No	0.20	Yes
Ishibashi Trail	Yes	Yes	Yes	0.88	Yes
Eagle's Nest Trail	Yes	Yes	Yes	0.50	Yes
Ailor Trail	Yes	Yes	No	0.30	Yes
Peacock Flats Trail	Yes	Yes	No	0.26	Yes

A portable restroom is available at the junction between the Fire Station and Burma Road Trails and at the Gateway Parking Lot located off Palos Verdes Drive South. A drinking fountain is not available at this Reserve.

10. FILIORUM RESERVE EXISTING

Trail Name	Pedestrian	Equestrian	Bicycle	Miles	Existing
Jack's Hat Trail	Yes	Yes	Yes	0.76	Yes
Pony Trail	Yes	Yes	Yes	0.61	Yes
Zote's Cutacross	Yes	Yes	Yes	0.88	Yes
Ford Trail	Yes	Yes	No	0.33	Yes
Kelvin Canyon Trail	Yes	Yes	Yes	0.35	Yes
Rattlesnake Trail	Yes	Yes	Yes	0.32	Yes
Eucalyptus Trail	Yes	Yes	No	0.17	Yes
Gary's Gulch Trail	Yes	Yes	No	0.33	Yes

Restroom facilities and drinking fountains are not available at this Reserve.

11. THREE SISTERS RESERVE EXISTING

Trail Name	Pedestrian	Equestrian	Bicycle	Length	Existing
McCarrell Canyon Trail	Yes	Yes	Yes	0.41	Yes
Three Sisters Trail	Yes	Yes	Yes	0.39	Yes
Barkentine Trail	Yes	Yes	Yes	0.66	Yes
Sunshine Trail	Yes	Yes	Yes	0.31	Yes

Restroom facilities and drinking fountains are not available at this Reserve

City of Rancho Palos Verdes			
Report Card 2013 Summary Cost Estimates			
Category	Current Grade	Cost to Improve One Grade Up	Cost to Improve to Grade A
Public Buildings	D	\$3,246,738	\$27,638,703
Park Sites	B	\$3,469,367	\$3,469,367
Trails	A	-	-
Storm Water System	C	\$3,150,000	\$17,350,000
Citywide Sanitary Sewer System	D	\$1,918,000	\$2,418,000
Abalone Cove District Sanitary Sewer System	D	\$900,000	\$2,000,000
Right-of-Way & Traffic Control Devices	A	-	-
Palos Verdes Drive South Landslide	D	\$1,316,400	\$11,479,400
Total		\$14,000,505	\$64,355,470

Notes

1. Categories at Grade A level require only maintenance and preventative maintenance activities (not included in this table)
2. Citywide sewer system costs include only those identified in 2009 master plan as facilities potentially requiring up-sizing due to possible capacity problems
3. These estimates are preliminary and do not include ongoing maintenance work or unless noted the costs to increase use or capacity of the facility assessed



THE CITY OF
RANCHO PALOS VERDES



Infrastructure Report Card

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