



Agenda Item #: \_\_\_\_\_

# Staff Report

## City of Manhattan Beach

**TO:** Honorable Mayor Tell and Members of the City Council

**THROUGH:** David N. Carmany, City Manager

**FROM:** Jim Arndt, Director of Public Works  
Sona Kalapura, Environmental Programs Manager  
Clay Curtin, Management Analyst

**DATE:** March 6, 2012

**SUBJECT:** Presentation of Final Site Design for Leadership Manhattan Beach Sustainable Garden

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### **RECOMMENDATION:**

Staff recommends that the City Council accept the final site design as presented.

### **FISCAL IMPLICATION:**

There are no General Funds being used for the estimated \$20,000 project. Leadership Manhattan Beach has committed to raise funds and contribute volunteer hours to design and install the new sustainable garden. There are costs associated with City staff involvement in coordinating irrigation and lighting systems. Staff costs are available in the existing budget.

### **BACKGROUND:**

As part of its mission, the Environmental Task Force developed several proposals to raise awareness on energy efficiency and the responsible use of water in the community. City Council approved these on October 4, 2011, and immediately the Environmental Task Force began seeking community support for its initiatives. On November 28, 2011, the Leadership Manhattan Beach 2012 class selected one of these initiatives, the Post Office Demonstration Garden, as their annual class project and initiated a conversation with city staff about collaborating on the project.

On January 12, 2012, the Environmental Task Force hosted a community outreach meeting to discuss the status of two diseased trees located onsite. Staff then presented their findings to the City Council on January 17, 2012, along with a proposal to remove the two diseased trees. This was approved and the Leadership Manhattan Beach group was authorized to begin site preparation work, and return to the City Council for approval of the final landscape design.

City staff removed the lawn at the project site, and Leadership Manhattan Beach covered the site with a layer of newspapers and several inches of organic tree-trimming mulch. The purpose of this was to demonstrate how to eradicate weed and lawn roots in a way that is easy, cost-effective, and safe for the environment.

**DISCUSSION:**

Because of its high visibility and potential to serve as a focal point for the community, the Environmental Task Force proposed redesigning the landscape surrounding the Post Office to create a demonstration garden, with design elements similar to the project flanking the entrance to City Hall. The City has partnered with the Leadership Manhattan Beach 2012 class to fully realize the Sustainable Garden project, which demonstrates the principles and practices of the City’s Landscape Sustainability Audit and Community Mulch programs. The Leadership Manhattan Beach mission in this project is: “To educate the Manhattan Beach community in environmentally-friendly landscaping and to inspire the use of sustainable gardening.”

Leadership Manhattan Beach, in conjunction with several local landscape experts, including landscape designer Mimi Andersen of Garden Magic Company, licensed contractor and landscaper Mike Garcia of Enviroscope, and certified arborist (and Environmental Task Force member) Greg Monfette, has developed a final landscape design plan for the sustainable garden project, subject to City Council approval. (Please refer to Attachment A – Landscape Design, p.7 of the staff report.) The design plan will cover the following areas, and if approved, Leadership Manhattan Beach will begin work on the various phases of the project installation.

Table1: Components of the Sustainable Garden Project

<b>Garden Design Elements</b>	<b>Softscape</b>
<ul style="list-style-type: none"> <li>• Site preparation (grading, relocation of artwork, irrigation, lighting)</li> <li>• Walkways and Seating (permeable paths, pavers, benches)</li> <li>• Decorative Features (plaques, boulders, pots, water feature)</li> </ul>	<ul style="list-style-type: none"> <li>• Climate-Appropriate Plants, Shrubs, Lawn and Tree</li> <li>• Rose/Butterfly Garden</li> <li>• Mulch</li> </ul>

The goal of the project is to create a beautiful public space that champions the principles of sustainable landscaping, while reducing the City’s utility and maintenance costs and removing harmful impacts to the environment. The proposed landscape design considers five principles: functionality of the landscape; visual aesthetics; cost effectiveness; ease of maintenance; and environmental soundness, in an effort to create a plan that incorporates the principles of sustainable landscaping throughout the garden design and softscape elements of the project.

***Garden Design Elements***

The Sustainable Garden project will incorporate landscaping practices that are environmentally friendly, and geared towards reducing irrigation needs and retaining water onsite. To this effect, the main elements of the garden design: Site Preparation, Walkways and Seating, and Decorative Features, will be installed at the project site by the Leadership Manhattan Beach class with some assistance from City staff when required.

Site Preparation (grading, relocation of artwork, irrigation, lighting)

**Grading and Stormwater Retention**

The project site is currently covered with layers of newspaper and mulch to smother any weeds and enrich the soil. Once the current organic mulch is removed, the site will be further graded and

prepared to reduce storm water runoff and erosion, keeping irrigation and rainwater onsite as much as possible. Permeable buffer areas such as mulched beds with trees, plants and shrubs, decomposed granite paths, and smaller lawn areas will also be used to assist in the retention of stormwater. Rainwater diversion boxes, such as the one already installed on the east side of City Hall, will also be utilized. These measures will allow water to seep down and be filtered naturally before reaching and replenishing the region's underground water table.



### **Relocation of Artwork**

An art sculpture donated to the City in 1982 by Harold Roach is currently located on the site. The Leadership Manhattan Beach proposes, and the City's Cultural Arts Commission has unanimously supported, changing the placement of the art sculpture as follows:

- The sculpture be moved approximately twelve (12) feet closer to the building and placed east or west approximately two (2) to three (3) feet so as not to be directly centered in front of the wall, as it is now (per landscape designer's request to enhance design)
- The sculpture pedestal be sunk into the ground to the level leaving 4" of visible base below the plaque (this would bring the piece into better vertical balance compared with the building roofline)
- The brick planter that surrounds the sculpture be removed to maintain ADA compliance for the proposed new decomposed granite pathway running east and west across the site. (To be compliant with the Americans with Disabilities Act, the pathway must be at least four feet wide.) Additionally, to prevent the crowding of the artwork and new planting beds, thick shrubs and imbedded boulders would be used to keep the artwork a safe distance from pedestrians.

### **Irrigation**

City Public Works staff will provide assistance to ensure the project's irrigation system is properly planned and connected so as to conform to City specifications. Leadership Manhattan Beach volunteers under the guidance of Enviroscope, will install a subsurface drip line system using flexible Rain Bird drip lines with copper-shield technology, which protects the subsurface emitter from root intrusion. This will create a long-lasting, low-maintenance, water-saving irrigation system. Leadership Manhattan Beach plans to collaborate with the Manhattan Beach Botanical Garden to arrange a public demonstration of the installation of the irrigation system. Leadership Manhattan Beach hopes to use this as a teaching tool for members of the public who wish to observe or participate, similar to the lawn smother/mulch event hosted in January 2012.

### **Lighting**

City Public Works staff will provide assistance to ensure the project's lighting system is properly planned and connected so as to conform to City specifications. Leadership Manhattan Beach proposes installing low-voltage electrical lines and architectural grade fixtures, which incorporate non-ferrous recycled materials in their production, for: a) subterranean path lighting, b) spotlight of the water feature, c) subtle lighting of the building walls, and d) tree canopy up lights. All fixtures are made in Southern California. An optional energy-saving LED lighting system may be used for subtle building lighting pending cost-analysis and suitability.

### Walkways and Seating (permeable paths, pavers, benches)



The proposed plan uses decomposed granite as a natural, permeable material to create paths throughout the landscape. This is similar to that used in other parks throughout the City. Some of the decomposed granite will be donated from the Manhattan Beach Botanical Garden. Epic Edge, a 100% recycled professional grade bender board, which resembles wood, would border the decomposed granite. (Recycled bender board helps divert over 15 million pounds of post-consumer plastic from landfills each year.)

The landscape design plan includes use of locally manufactured, precast concrete pavers in areas of heavy foot traffic, such as the 15<sup>th</sup> Street corner that is designed to transition from decomposed granite to sidewalk. Some of these pavers would consist of 100% recycled glass aggregate that provides added environmental benefits. This would provide a durable surface (the product is rated at 6000 psi, similar to the strength of most driveways), and help keep a clean walking surface and prevent trip hazards.

Lastly, two flat gray stone benches are proposed onsite. The concrete bases would have polished recycled aggregates in the concrete and a modern backless style to accommodate seating from both sides. The top will be drilled and secured to the bases and the bench will be securely placed level at grade. The height of each bench is a comfortable 18” that matches the height of the existing adjacent rose garden planter seating. Please see Attachment A – Bench Design Concepts, p.8 of the staff report, for specifications on the bench design.

### Decorative Features (plaques, boulders, pots, water feature)

The project incorporates several decorative features to improve the visual aesthetics of the garden and serve as functional elements of the design. These features will be installed based on the donations and sponsorships received by Leadership Manhattan Beach, but are presented for Council approval as part of the landscape design.

### **Plaques and Recognition**

The Leadership Manhattan Beach class would like to include the placement of recognition plaques to add to the garden experience and thank project sponsors. Two 10-inch by 10-inch sized bronze or brass plaques would be affixed to boulders in the garden project. One plaque would include the name of the project, "Leadership Manhattan Beach Sustainable Garden," and reference the 2012 class. The second plaque would read, "Thank You to Garden Patrons" and may be adjusted in length to accommodate the list of names. Patrons who donate \$500 or more to the project would be included on this plaque, and the Leadership Manhattan Beach class may designate donation levels such as Silver, Gold, and Platinum. Depending on funding, a sign in material and character similar to the City's Water Wise Demonstration Garden on Aviation and Matthews could substitute for one of the plaques.

The Leadership Manhattan Beach class would also like to include a smaller sign to denote the planting of a replacement tree as a "centennial tree" in the garden project. The plaque would be approximately 8-inches by 4-inches, and would be affixed to a durable metal spike anchored adjacent to the newly planted tree. Planned wording for the sign would read: "2012 Centennial Tree."

### **Boulders and Decorative Pots**

Boulders are proposed to act as design accents, and provide a barrier for pedestrians near features such as the metal sculpture artwork. High Desert boulders would be embedded as part of the landscape, and as such would be immobile.

One tall and one medium-sized ceramic pot would be placed together against the wall of the building entrance (similar to those by the round fountain by the east main entrance to City Hall). Drought-tolerant succulents would be used to fill these decorative pots.



### **Water Feature**



The Leadership Manhattan Beach class proposes incorporating a water feature in the garden project design. Providing that Council approves the request and enough funds are raised, the group would like to install a natural stone water feature consisting of a low boulder, no taller than 30". The stone water feature is drilled to allow water to bubble over the rock and slowly recirculate below. The pump for this feature will not be housed underneath, but 6-7 feet away in a garden bed. This will allow for easy access to the pump if needed, without having to disturb the water feature itself. The pump will be energy efficient and have a good flow rate.

City staff has considered the maintenance requirements of the water feature, and due to the small size of the proposed system does not find any specialty maintenance requirements. For more details on the water feature, please refer to Attachment A – Water Feature, p.9 of the staff report, for more information on the water feature.

### ***Softscape (plants, shrubs, tree, mulch)***

The vegetation in this garden design is “climate-appropriate” which means the plants are well adapted to the microclimates in this region. In coastal Southern California these plants include local natives or other regional varieties tolerant of drought, sun, wind, fog and salt air. The plants thrive in these conditions and require little water, fertilizers or pest control. Further, installing a broad pallet of specimens promotes biodiversity, and regularly applying organic mulch improves ecosystem health by providing an inviting habitat for beneficial organisms. This garden design demonstrates flowering examples of attractive, easy-care, evergreen vegetation; a climate-appropriate tree; and the use of organic mulch to control erosion.

### **Climate-Appropriate Plants, Shrubs, Lawn and Tree**

Durable and colorful climate-appropriate plants and shrubs from various Mediterranean climate zones, including California natives, will be installed throughout the landscape. Most are evergreen and will provide nectar and seeds for birds and butterflies. The plants will not need water more than twice weekly during the first year, reducing to weekly or monthly thereafter. In addition, several areas have been incorporated into the plan to accommodate dog walkers with a sturdy variety of lawn that can withstand animal waste. Similar to the City Hall landscape project, the Leadership Manhattan Beach class would like to place plant identification and educational signage throughout the garden to explain plant details and garden features to visitors. More information on these softscape elements can be found in Attachment A- Plant Gallery, p. 10 of the staff report.

A 48" box California Sycamore tree was donated to the project. This deciduous tree is suitable to the project site, and to the wildlife of the region. (The California Sycamore is a favorite of Goldfinches due to its soft seed-filled pods.) This tree will require more water than most of the shrubs and vegetation in the garden design. The tree will drop its leaves in Fall, but will be situated near a grassy area near other deciduous shrubs, where the leaves can be swept to the tree's understory as mulch, or can be easily removed. Further, the California Sycamore donated to the project would adequately meet the carbon sequestration needs for the site that were previously met by the diseased Monterey Pine that was removed.

### **Rose/Butterfly Garden**



The 1984 Olympic Rose Garden has a special designation in the landscape, however, this boxed flowerbed near the building's south entrance is filled with roses whose lifespan of 15-20 years is long past. The Leadership Manhattan Beach class recommends removing these roses as part of the project design, and filling the space with pest-resistant rose varieties, in addition to colorful and fragrant low-growing perennial flowers that will attract butterflies and birds.

### **Mulch**

Donated organic tree-trimming mulch from the City's Community Mulch program will be applied two to three inches deep over exposed soil throughout the garden. This layer will impede soil evaporation and weed growth, control erosion, protect root health by maintaining the soil's temperature in hot and cold weather, and enrich the soil as it breaks down. In addition, leaf litter from the landscape's shrubs and trees can be swept to the plant beds in lieu of being hauled away.

### **CONCLUSION:**

The Sustainable Garden project design utilizes recycled materials, climate-appropriate plants, and water-wise irrigation materials to create a beautiful example of sustainable landscaping. In order for the project to move forward, City Council approval on the landscape design is requested. Leadership Manhattan Beach can provide a status report if needed to summarize any decisions made as funds are raised and project installation begins.

Staff recommends that the City Council accept the final site design as presented.

Attachment A: Leadership Manhattan Beach Proposal Materials

cc: Juan Price, Maintenance Superintendent

Attachment A – Landscape Design



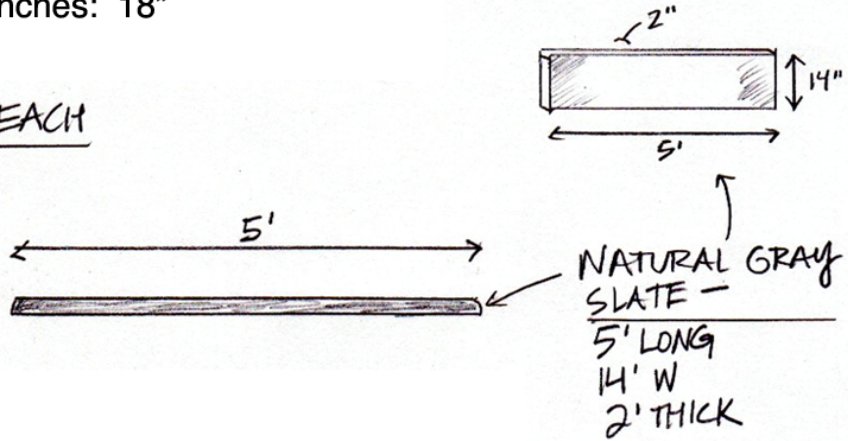
**15th Street**

LMB 2012 Post Office Sustainable Landscaping Project - Bench

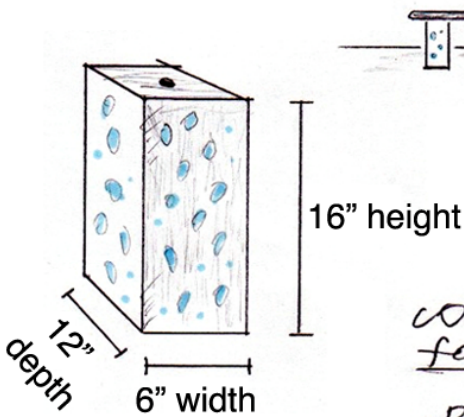
Benches: Qty. 2 ea

Overall Height of Benches: 18"

BENCHES - 2 EACH  
TOP:



BASE:



APPROX. REAL-SIZE OF GLASS SILVER MIRROR pieces



APPROX. REAL-SIZE OF Glass pieces

CONCRETE SUPPORTS (BASE) FOR BENCH - DETAILS:

- REINFORCED CONCRETE (METAL MESH) TO SUPPORT WEIGHT
- TUMBLED GLASS AGGREGATE & MIRROR pieces
- MADE BY A LICENSED MASON
- BASE W/ BE DRILLED/PEGGED/EPOXY TO SLATE TOP



Option 2: Leadership Manhattan Beach Proposal – Water Feature



The pump for this feature is not housing underneath but 6-7 ' away in a garden bed. This allows easy access to the pump if needed without disturbing the water feature itself.

Gravel Lok "Bonded Rocks" for pondless water feature. This permeable surface sits underneath the recirculating water feature as a thick layer over the basin hidden underneath. See plan. No pebbles are loose. Gravel Lok is used for paths, driveways, around trees and other public areas. It is safe and easy to install.



**MANHATTAN BEACH  
POST OFFICE: THE PLANTS**



**Octopus Agave 'Stained Glass'** -  
**Dramatic Agave, not spiny. 3-4' t & w'** &  
takes pruning lower branches if needed



**Variegated Mexican Lily**



**Berkeley Sedge** -  
great CA native in  
shade/pt sun -  
tough/tidy



**Encephalartos** - Cycad relative



**Dwarf Lil John Bottlebrush**



**Echeveria 'Afterglow'**



**Greenlee Moor Grass** - small,  
tough/tidy grass





Octopus Agave -  
Barrier for around sculpture but does not  
have sharp spines or teeth



Red Yucca

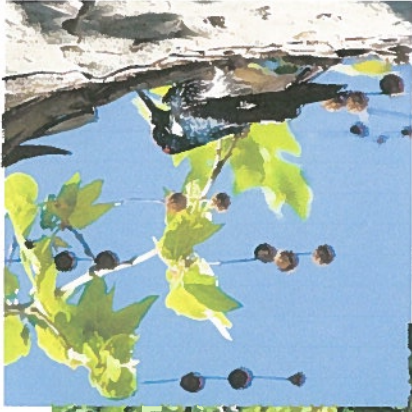


Howard McMinn -  
Ca native Manzanita  
shown here in 3-growth stages  
Takes pruning, gorgeous red  
bark



California native Lilac -  
Ceanothus griseus horizontalis  
Easy care, can be kept 2'





Calif Lilac "Joyce Coulter" variety



Calif Sycamore Tree



Calif Redbud Tree





Yarrow "Moonshine"



Yarrow "Paprika" - CA native



Hummingbird Sage - CA native



Iceberg Rose in White, Pink & Burgundy varieties for Rose Garden in raised bed





Cordyline 'Design a Line'



Orange Libertia - dog-proof edging plant



Salvia "Mrs. Beard" - CA native sage



Ca native Dudleya



Santa Cruz Calif Buckwheat



Blue Chalk Sticks



Calif. Dune Sedge Lawn



NarrowLeaf Chalkstick



Dymondia, "Silver Carpet"



Dwarf Mexican Sage, "Santa Barbara"



Golden Breath of Heaven



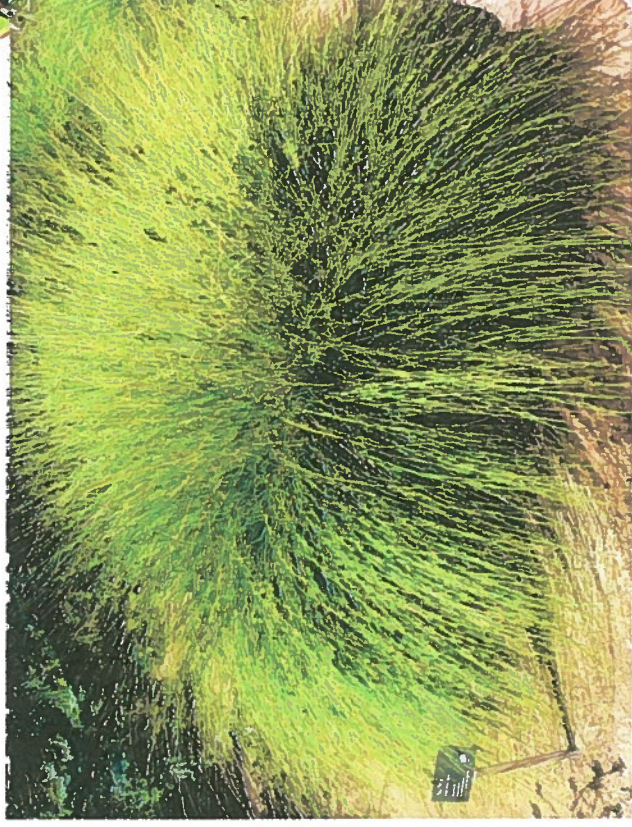
Sunburst Aeonium



Burgundy Spire Cordyline



Harmony Kangaroo Paws



Deer Grass (Muhlenbergia) CA native



Golden Sedum 'Angelina'