

Twin Peaks Trails Improvement Project

Community Meeting
September 24, 2013



San Francisco Recreation and Park Department
For inquiries about this project please contact:
Melinda Stockmann, Project Manager
Capital Improvement Division
(415) 581-2548 or melinda.stockmann@sfgov.org

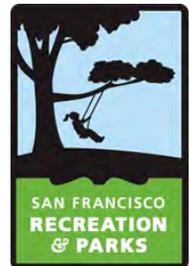


Agenda

- **Brief project background**
- **Comments from Supervisor Scott Wiener**
- **Address questions and concerns raised at Sept 12 mtg**
- **Questions and answers**



CONCEPTUAL PROJECT PLAN



TWIN PEAKS PROPOSED TRAIL RENOVATION

SITE PLAN



LEGEND

- PORTOLA TRAIL
- MISSION BLUE BUTTERFLY TRAIL
- TWIN PEAKS TRAIL
- RPD PROPERTY LINE

TRAIL IMPROVEMENT KEY

- 1 Park entrance planting, trail restoration, new trail segment, decommission social trails hazardous tree removal, retaining wall, steps provide trail welcome and wayfinding signage.
- 2 New trail, traiside planting, box steps, fencing, retaining wall, decommission social trail, provide wayfinding signage
- 3 Trail restoration, erosion control, fencing, box steps, decommission social trail, provide wayfinding signage
- 4 Trail restoration, erosion control, fencing, retaining wall, box and stringer steps, decommission social trails, traiside planting, provide wayfinding signage
- 5 Trail restoration, fencing, steps, decommission social trails, traiside planting, provide wayfinding signage
- 6 New trail, steps, fencing, erosion control, provide wayfinding signage
- 7 Trail restoration, fencing, box steps, retaining wall, erosion control, decommission social trails, traiside planting, provide trail welcome and wayfinding signage
- 8 Decommission social trails, provide wayfinding signage

San Francisco Recreation and Park Department
 McLaren Lodge, Golden Gate Park
 501 Starvan Street
 San Francisco, CA 94117



September 8, 2010

Primary Concerns Raised

- **Drainage and erosion**
- **Privacy and security**
- **Roadway crossing**
- **Wayfinding**
- **Condition of trees**





LEGEND:



Proposed Portola Trail



Proposed split rail fencing (50'-60')



Proposed planting for visual and sound attenuation

Area 1 and Area 2



Area 3



Area 4



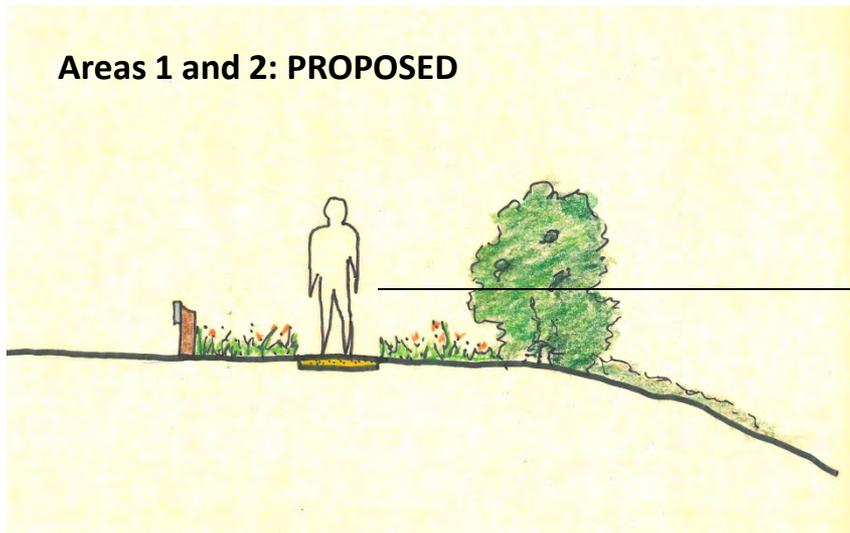


Area 1

Area 1: EXISTING



Area 2: EXISTING



Areas 1 and 2: PROPOSED

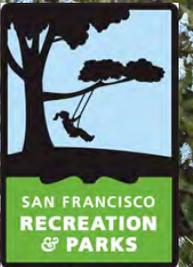
- Ceanothus screening (approx. 60 x 5-gallon plants)
- Seed exposed soil

Estimated height of plants at planting



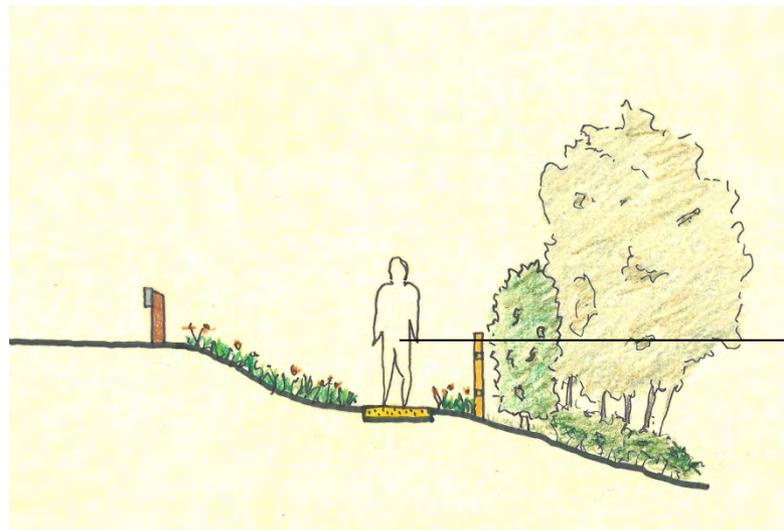


Area 2: PROPOSED





Area 3: EXISTING



- 50'-60' split rail fencing
- *Pittosporum tenuifolium* screening (approx. 30 x 5-gallon plants)
- Seed exposed soil

Estimated height of plants at planting



Temporary Fencing





Area 3: PROPOSED



HYDROLOGIC ASSESSMENT



550 Kearny Street
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San Francisco, CA 94108
415.896.5900 info@esa.com
415.896.0332 fax

www.esa.com

September 23, 2013

Melinda Stockmann
Project Manager, Trails Improvement Program
San Francisco Recreation and Park Department
30 Van Ness Avenue
San Francisco, California 94102

Subject: Twin Peaks Portola Trail: Hydrologic Assessment

Dear Ms. Stockmann:

On behalf of the San Francisco Recreation and Park Department, ESA PWA evaluated the potential effect of the proposed Portola Trail project on the hydrology (surface runoff and drainage characteristics) of the project site. The evaluation was based on a reconnaissance-level site visit, project documents and topographic data provided by the Department, and aerial photographs.

Project Understanding

The location of the proposed Portola Trail is adjacent to Twin Peaks Boulevard between its intersection with Portola Drive and an existing trail on the north side of Twin Peaks Boulevard (where it makes a 90 degree bend). The trail will generally be constructed by clearing a 2.5' to 5' wide pathway on the flat area on the east side of Twin Peaks Boulevard; the trail surface will consist of native earth material.

Existing Site Conditions

Twin Peaks Boulevard climbs the southeastern flank of Twin Peaks from Portola Drive to the crest of Twin Peaks. The proposed trail site is on the east (downslope) side of Twin Peaks Boulevard. Surface runoff from the proposed trail site and the adjacent hill slope occurs by sheet flow downhill toward Glenview Drive. In general, it appears that surface runoff from the west (upslope) side of Twin Peaks Boulevard is captured by a roadway and directed southward along Twin Peaks Boulevard toward Portola Drive. There is an asphalt berm along the east edge of Twin Peaks Boulevard to contain stormwater runoff and direct flow downhill along the roadway. However, gaps in the asphalt berm may permit runoff from upslope areas and/or the roadway to drain eastward toward the proposed trail site.

There is an existing social trail between Twin Peaks Boulevard near the intersection of Panorama Drive and Portola Drive. The social trail is bare, packed earth and cuts directly down the hill slope. This trail likely forms a flow path for runoff during storm events because of its orientation and lack of vegetative cover.

Observations

- The primary factors that affect the quantity and rate of surface runoff generated by a given rainfall event are ground slope, infiltration characteristics (i.e. how much water can soak into the ground), and ground cover (i.e. vegetation). For example, paving can increase runoff by reducing infiltration, while vegetation cover can reduce runoff by intercepting water and interrupting flow paths. The proposed trail is not expected to alter runoff characteristics of the project area because the trail design:



HYDROLOGIC ASSESSMENT



Melinda Stockmann
September 23, 2013
Page 2

- preserves the existing ground slope and drainage characteristics of the adjacent hillside by utilizing flat ground adjacent to the road;
 - maintains existing infiltration characteristics by utilizing native soil; and
 - maintains the beneficial function of existing ground cover by minimizing disturbance of existing vegetation and adding new vegetation in some areas.
-
- Maintaining or improving drainage along Twin Peaks Boulevard could reduce the potential for runoff from upslope areas to drain eastward toward the proposed trail. Specifically, repairing the asphalt berm on the east side of Twin Peaks Boulevard so that it is continuous along the project area could help contain runoff on the roadway.
 - Though not included in the current project, a formal spur trail replacing the current social trail between Portola Drive and the intersection of Twin Peaks Boulevard and Panorama Drive could slow runoff and reduce erosion potential relative to existing conditions by replacing the bare earth social trail with constructed switchbacks and/or stairs.

Based on my assessment, the proposed trail project is not expected to increase the rate or quantity of surface runoff from the project area relative to existing conditions.

Sincerely,

A handwritten signature in blue ink that reads 'Christie Beeman'.

Christie Beeman, P.E.
Senior Hydrologist



GEOTECHNICAL RECOMMENDATIONS



Practical Experience
Client Responsiveness

23 September 2013
Project 731624501

Melinda Stockmann
Project Manager, Trails Improvement Program
San Francisco Recreation and Park Department
30 Van Ness Avenue
San Francisco, California 94102

Subject: Progress Report
Geotechnical Recommendations
Portola Trail
San Francisco, California

Dear Ms. Stockmann:

This letter summarizes our observations and geotechnical recommendations related to the new Portola Trail along a portion of Twin Peaks Boulevard in San Francisco. On 20 September 2013, we accompanied you and Christopher Campbell of the San Francisco Recreation and Park Department on a site walk of the proposed trail alignment. During our reconnaissance, we outlined our recommendations concerning drainage, erosion, and stability. These recommendations are summarized below:

- To maximize stormwater capacity of the existing drainage swale along Twin Peaks Boulevard, remove all vegetation and debris from the swale.
- To prevent roadway drainage from eroding the trail, repair the existing asphalt berm along Twin Peaks Boulevard, where appropriate; surface water from the roadway should not be allowed to flow across the trail.
- To limit soil excavation, choose a trail alignment that follows the existing contours; fills should be kept to a minimum. If fill is required, it should be keyed, benched, and compacted.
- Grade the trail so that existing drainage courses are maintained; minimize the creation of new drainage pathways. Slope trail toward Twin Peaks Boulevard.
- To reduce erosion, wattles should be installed along the top of slopes and rapid growing ground cover, such as ivy, should be planted in disturbed areas.
- Limit the removal of existing vegetation adjacent to the new trail.
- Where trail alignment is to be constructed adjacent to the top of the slope or in areas of potential instability, the width of the trail should be reduced to 30 inches.



GEOTECHNICAL RECOMMENDATIONS



*Geotechnical Recommendations
Portola Trail
San Francisco, California
Project No.: 731624501*

*23 September 2013
Page 2 of 2*

During our reconnaissance, the remnants of a landslide were observed. No new fill should be placed within the limits of the slide. The new trail alignment should cross the slide along the base of the head scarp.

If the recommendations outlined above are properly implemented, we judge that the new trail is feasible from a geotechnical standpoint.

If you have any questions, please call.

Sincerely yours,
TREADWELL & ROLLO, A LANGAN COMPANY

A handwritten signature in blue ink, appearing to read "Elizabeth A. Binning".

Elizabeth A. Binning, P.E.
Senior Staff Engineer

731624501.01_EAB_Portola Trail Recommendations

A handwritten signature in black ink, appearing to read "Frank L. Rollo".

Frank L. Rollo, G.E.
Senior Consultant



TREE ASSESSMENT

HORTICULTURE | ARBORICULTURE | URBAN FORESTRY



September 24, 2013

Ms. Melinda Stockmann
Recreation and Park Department
City of San Francisco
30 Van Ness Avenue, 5th Floor
San Francisco CA 94102

Subject: Trail improvement report
Twin peaks

Dear Ms. Stockmann:

The Recreation and Park Department is planning to renovate existing trails and construct a new trail (the Portola trail) as part of the improvements at Twin Peaks. The Department requested that HortScience assess the health, structural condition and risk associated with trees located along the proposed Portola trail. To aid in my assessment, you provided the Proposed Trail Renovation Plan (dated September 8, 2010). This letter summarizes my observations and recommendations.

Assessment Methods

On September 20, 2013, I visually assessed the health and structural condition, from the ground, of trees within 50' of the proposed Portola trail. The assessment focused on trees that were dead, dying, in poor health and/or possessed significant defects in structure that required abatement. Where trees were adjacent to the proposed trail alignment and possessed significant defects in structure, I attached a numerically coded metal tag to the trunk. Tree tag numbers correspond to the numbers in the enclosed ***Tree Assessment Form, Tree Risk Rankings*** and ***Tree Location Map***.

I evaluated the risk associated with each tagged tree using the method described in ***A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas*** (Matheny and Clark, 1994). The components of the risk rating are: failure potential, size of part most likely to fail, and target rating. Each of the three components is scored from 1 to 4 points. As with other trails, the target rating was 2. The results of the three components are added together to give an overall risk rating from 3 to 12. Procedures specific to the SF Recreation and Park Department are described in *Assessment of Urban Forestry Operations* (July 2010).

Description of Trees

I reviewed approximately 100 trees along the east side of Twin Peaks Blvd. Of these, I tagged and assessed five (5) trees. All five of the trees were blue gum eucalyptus (*Eucalyptus globulus*) and were part of the main stand of blue gums north of the intersection with Panorama Dr. (see ***Tree Location Map***).

Trees #2 and 5 were dead. Trees #1 and 4 were in poor condition, with dead tops. I expect trees #1 and 4 to continue to decline regardless of treatments. Tree #3 was in moderate condition, with an 8" diameter dead branch and an 18" diameter lateral limb extending over the proposed trail (Photo 1, following page).



TREE ASSESSMENT

Tree assessment
Trail improvements, Portola Trail

HortScience, Inc.
Page 2

Photo 1: Tree #3 was in fair condition. An 8" diameter dead branch and a long lateral limb extended over the proposed trail (arrows).

Brush clearing had already been performed behind the guardrail, leaving a solid wall of vegetation.

Four (4) of the trees received risk rankings of 8 and tree #3 received a risk ranking of 9. No trees received ratings of 10, 11 or 12. Stems were identified as the most likely part to fail for trees #2, 4 and 5, a branch was the most likely part to fail for tree #3, and the whole tree was deemed the most likely part to fail for tree #1.

The SF Recreation and Park Department tree risk management program has set a rating of 9 or greater as its threshold for abatement. In addition, trees in poor condition with a rating of 8 may be treated.

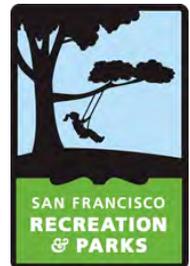


Windthrow Assessment

The Department asked that I assess the potential for windthrow of trees downhill of the proposed trail alignment, based on brush clearing and tree removals. In general, the area between Twin Peaks Blvd. and the private properties to the east is a closed canopy forest dominated by blue gum eucalyptus.

Brush clearing removed small-diameter trees and shrubs within the first 15-20' east of the guardrail. A relatively solid stand of small-diameter trees and shrubs were still present between the cleared area and the stand of blue gums (see photo 1). Blue gums recommended for removal as part of this assessment were dead or in poor condition. These trees had either no live canopy (#2 and 5) or very little live canopy (#1 and 4).

Based on my assessment, the brush clearing and removal of trees #1, 2, 4 and 5 are not expected to increase wind velocities for the remaining trees. I do not expect any increased failure potential for those trees preserved downhill from the brush clearing or tree removals.



TREE ASSESSMENT

Tree assessment
Trail improvements, Portola Trail

HortScience, Inc.
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Summary

Based on my observations and recommendations, impacts to trees from the proposed trail improvement should be minor. I recommend that the Department do the following prior to the trail opening to the public:

- Remove blue gums #1 and 4.
- Remove or prune dead stems over trail for blue gums #2 and 5.
- Prune blue gum #3 to remove dead branch and reduce the length of the lateral limb over the trail.

Thanks very much for the opportunity to provide this assessment. Please contact me with any questions.

Sincerely,



John Leffingwell
Board certified Master Arborist #3966B, Registered Consulting Arborist #442

Enc. **Tree Assessment Form**
Tree Risk Rankings
Tree Assessment Map



TREE ASSESSMENT

Tree Assessment

Portola Trail
Recreation & Park Department
San Francisco CA
September 2013



TREE No.	LOCATION	SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excell.	SUITABILITY for PRESERVATION	COMMENT
1	Trail	Blue gum	19	2	Low	Dead top; remaining branch extends E. away from trail.
2	Trail	Blue gum	37	0	Low	Dead; 40' downhill from trail.
3	Trail	Blue gum	37	3	Moderate	8" dead limb & 18" stem extend W. over trail.
4	Trail	Blue gum	12	1	Low	Dead top; 10' downhill from trail.
5	Trail	Blue gum	27, 17,12,12	0	Low	Dead; 50' downhill from trail but long laterals extend over trail.



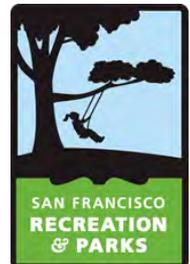
TREE ASSESSMENT

Tree Risk Rankings

Portola Trail
 Recreation & Park Department
 San Francisco CA
 September 2013



TREE No.	LOCATION	SPECIES	TRUNK DIAMETER (in.)	CONDITION 1=poor 5=excell.	Most likely failure	RISK RANKING		Size of part	Target	Sum
						Target	Failure potential			
1	Trail	Blue gum	19	2	Whole tree	Trail	3	3	2	8
2	Trail	Blue gum	37	0	Stem	Trail	4	2	2	8
3	Trail	Blue gum	37	3	Branch	Trail	4	3	2	9
4	Trail	Blue gum	12	1	Stem	Trail	4	2	2	8
5	Trail	Blue gum	27, 17,12,12	0	Stem	Trail	4	2	2	8



TREE ASSESSMENT



Tree Assessment Map

Portola Trail
San Francisco, CA

Prepared for:
City of San Francisco, CA

September 2013

N →
No Scale

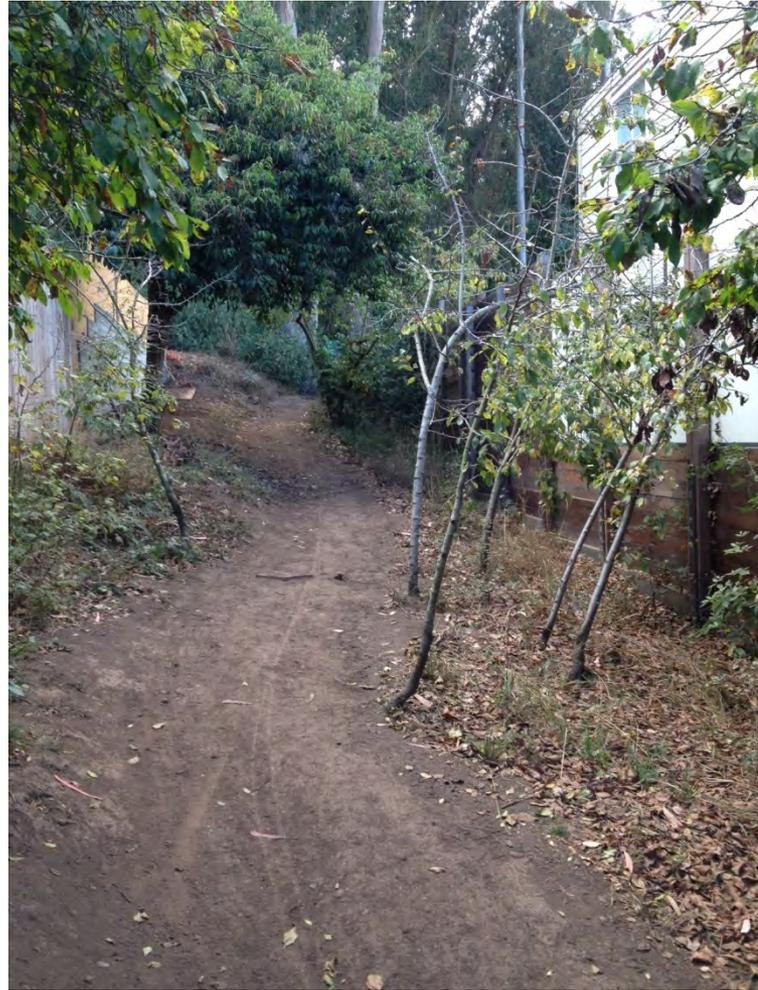
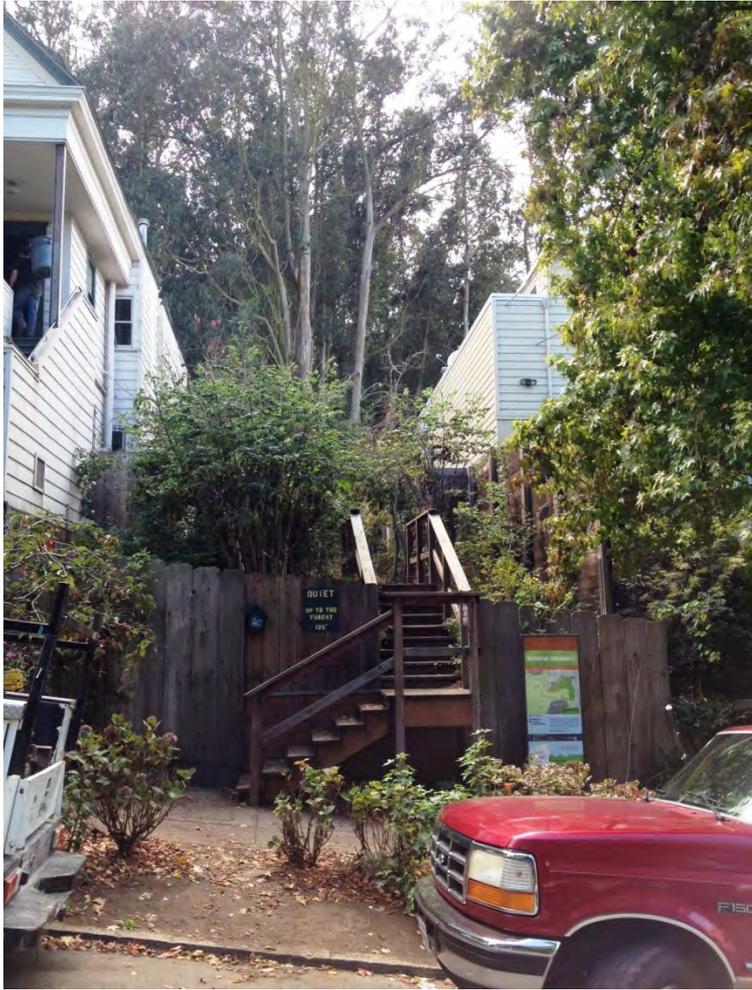
Notes

- Numbered tree locations are approximate.
- Base map Source: ESRI



325 Ray Street
Pleasanton, California 94566
Phone 925.484.0211
Fax 925.484.0596

Signage: Interior Greenbelt



Signage

- Entrance sign @ the base of Portola Trail and Twin Peaks Boulevard
- Temporary signage at base and top of trail



Rules/Req

Entrance

small entry

interpretive

wayfinding



Questions?



San Francisco Recreation and Park Department
For inquiries about this project please contact:
Melinda Stockmann, Project Manager
Capital Improvement Division
(415) 581-2548 or melinda.stockmann@sfgov.org

