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OAKLAND

CITY OF OAKLAND
AGENDA REPORT


2011 OCT 20 PM 4:11

TO: Office of the City Administrator
ATTN: Deanna J. Santana
FROM: Public Works Agency
DATE: October 25, 2011

RE: **Informational Report On Options For Low Impact Development Street Design, Including Permeable Paving And Other Stormwater Runoff Mitigation Strategies In The City's Long-Term Paving And Streetscape Plans, To Include Analysis Of Regulatory Guidelines, Costs And Benefits, And Potential Funding Opportunities; And Receive A Presentation From The California Environmental Protection Agency, Regional Water Quality Control Board**

Attached is a hard copy of a PowerPoint presentation from the California Environmental Protection Agency, Regional Water Quality Control Board. Please attach this to the October 25, 2011, Public Works City Council Committee Informational Report On Options For Low Impact Development Street Design, Including Permeable Paving And Other Stormwater Runoff Mitigation.

Respectfully submitted,



Vitaly B. Troyan, P.E., Director
Public Works Agency

Item: _____
Public Works Committee
October 25, 2011

Green Streets, Clean Stormwater Updated Requirements



**Bruce H. Wolfe
Executive Officer
S.F. Bay Regional Water Board**

Overview

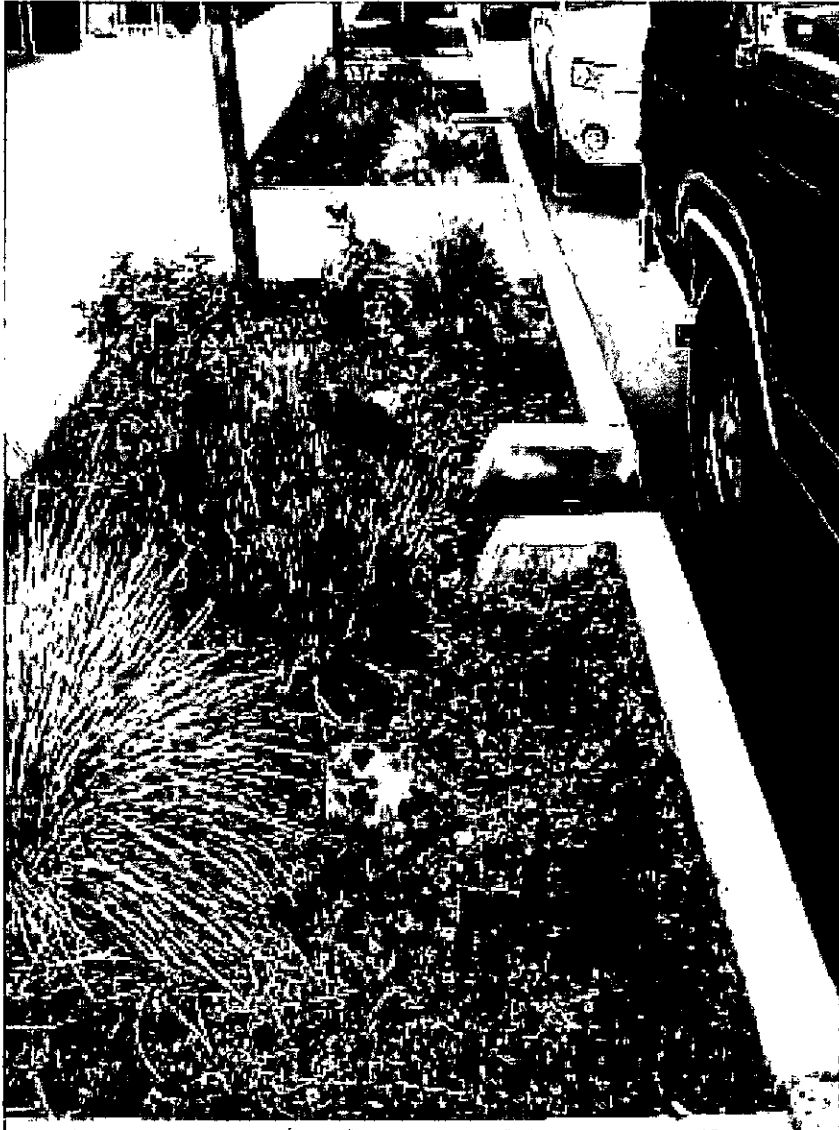
- **Urban runoff – threat to creeks, Lake Merritt, and SF Bay**
- **2009 Municipal Regional Stormwater Permit**
 - Oakland a permittee since 1991
- **December 1, 2011 - “Low Impact Development” broadly required**



Low Impact Development (LID)

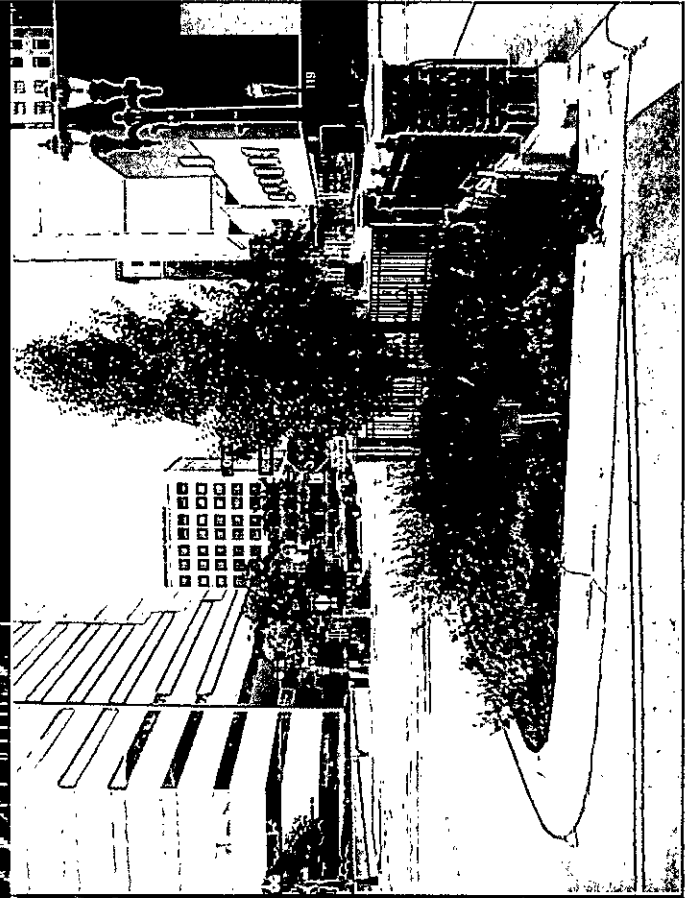
- Stormwater runoff: Slow it, spread it, sink it
- Soil and plants clean runoff
- Achieve further benefits
 - Pedestrian safety/traffic calming
 - Urban greening
 - Reduce local flooding
 - Increase property values & neighborhood connection/identity
 - Protect Oakland's creeks & the Bay

LID Permit Requirements ("C.3")



- “Regulated Projects” – LID required
- Green Streets projects & guides
 - San Mateo County
 - El Cerrito
 - San Francisco

Bioretention Downtown Lansing, Mich.





Low-cost option: Curb extensions

**Third Ave. curb ext.
San Bruno**

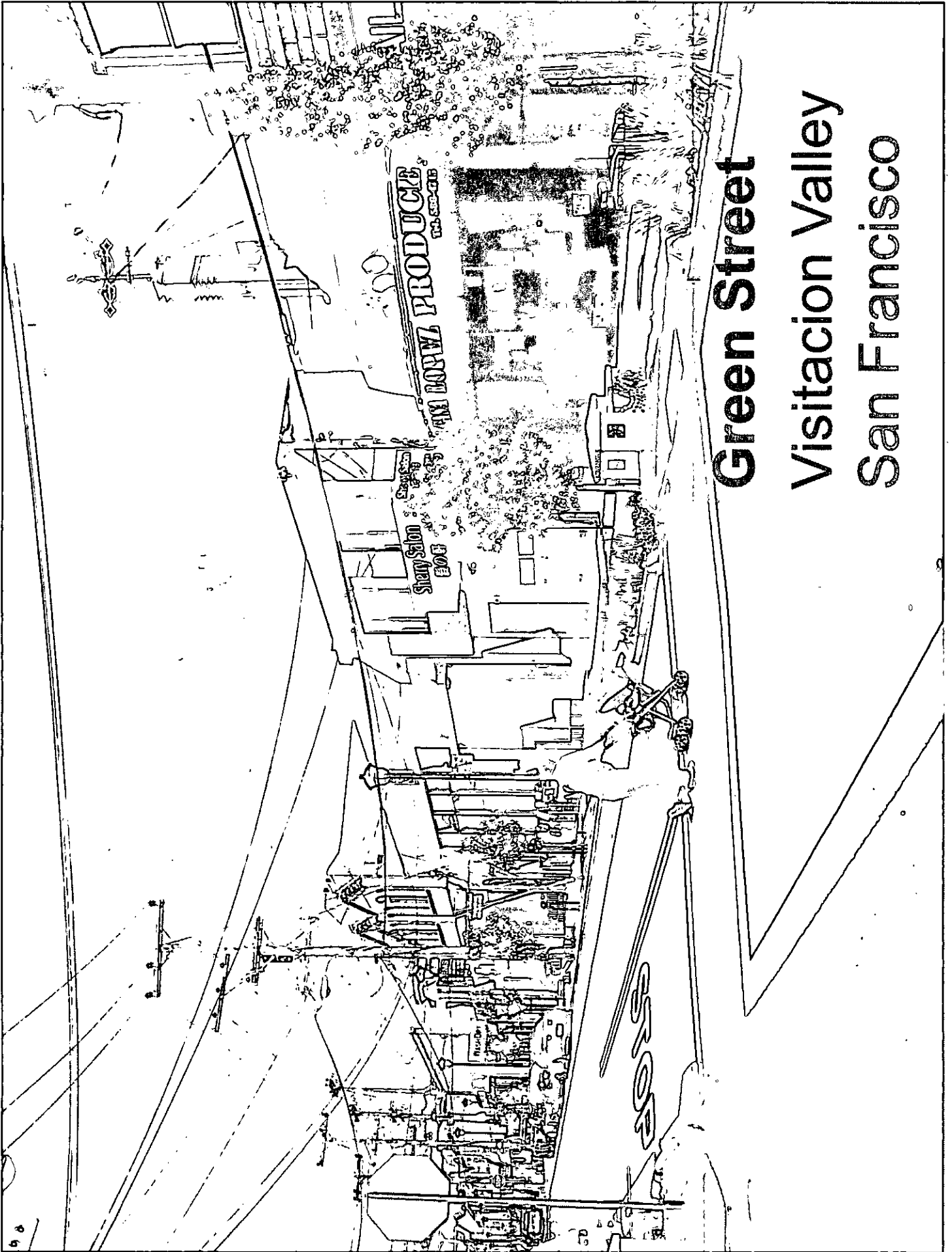
Photo Credit: Lisa Owens-Viani

**Parkway strip
bioretention**

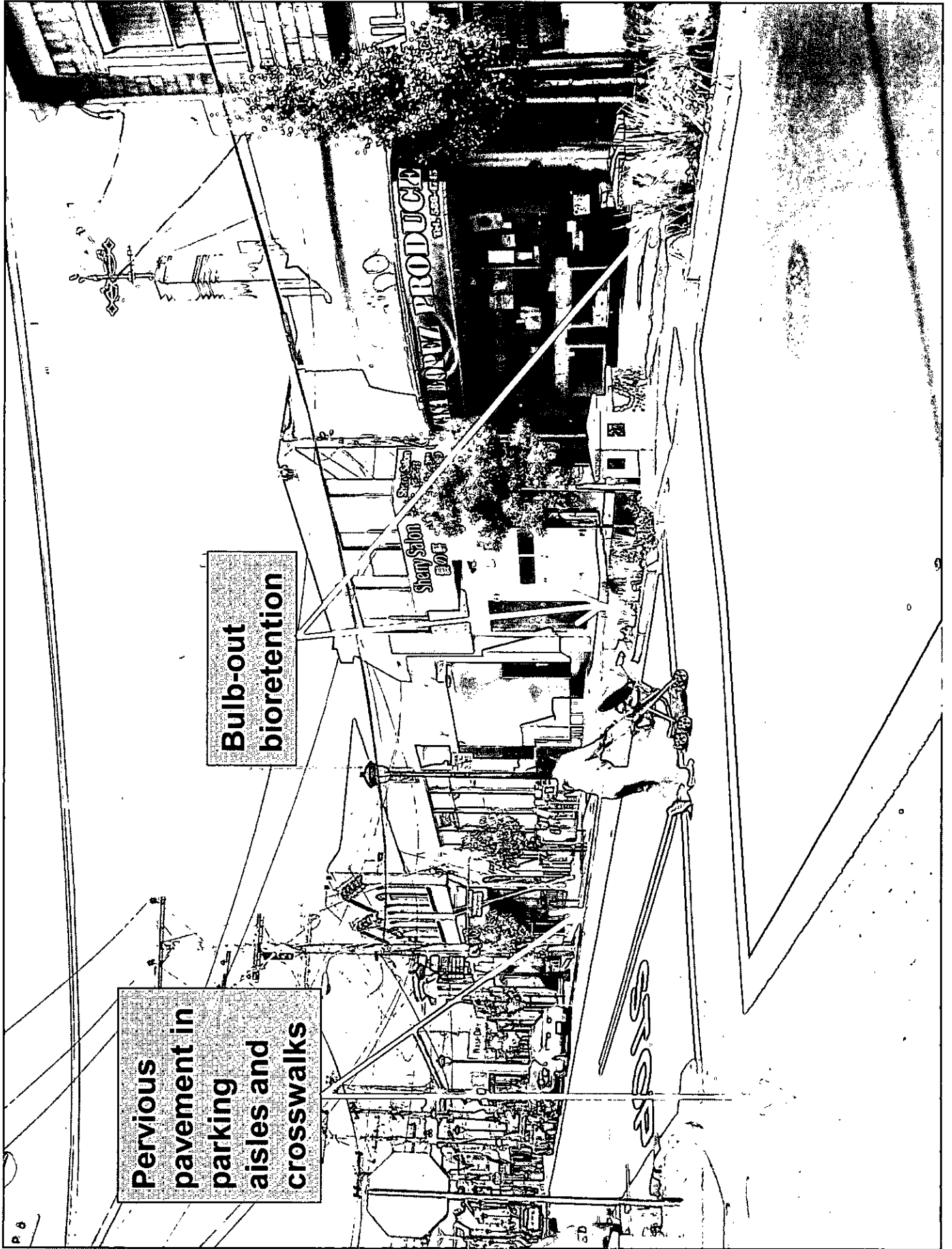
**San Pablo Ave.
El Cerrito**



Photo Credit: Lisa Owens-VianL



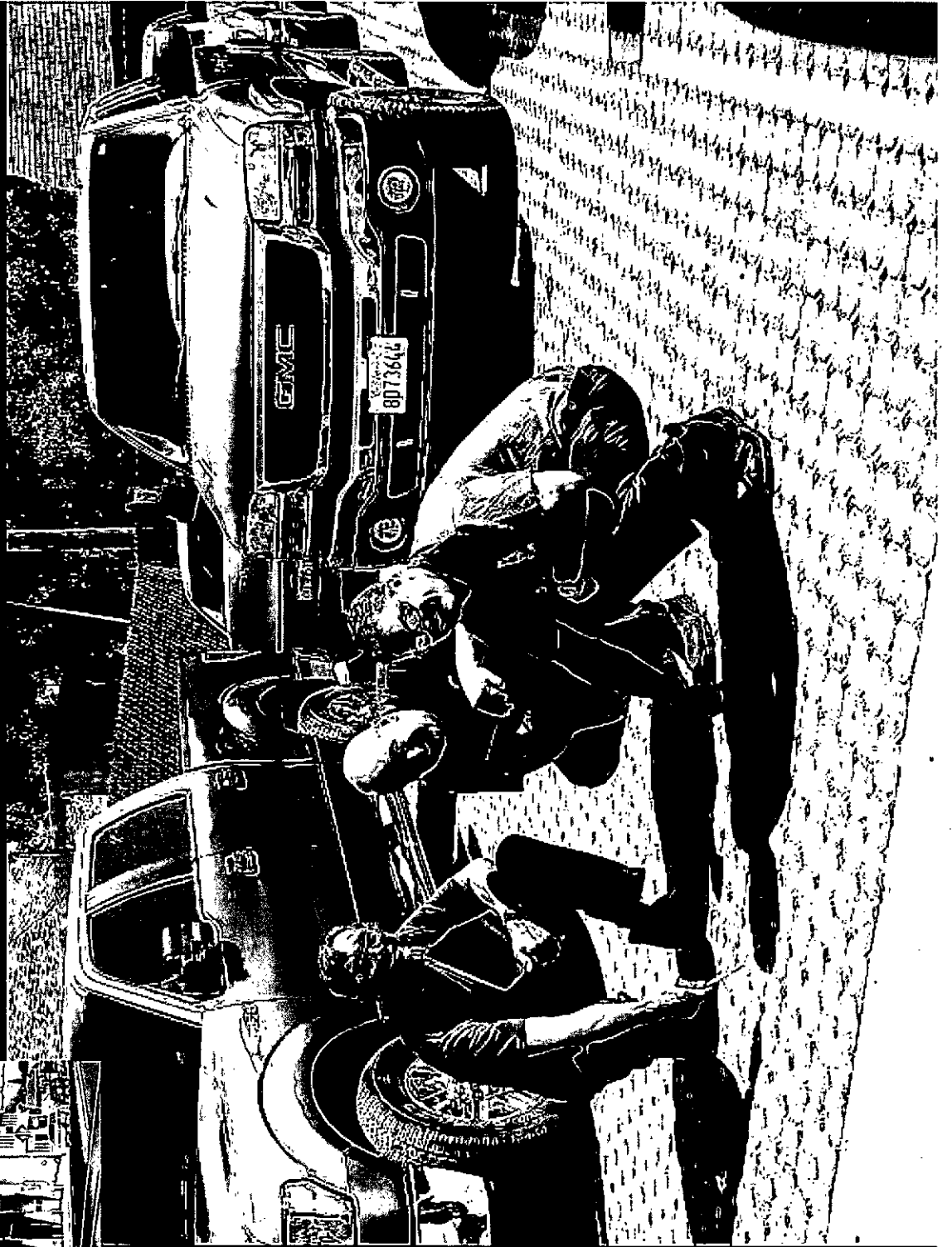
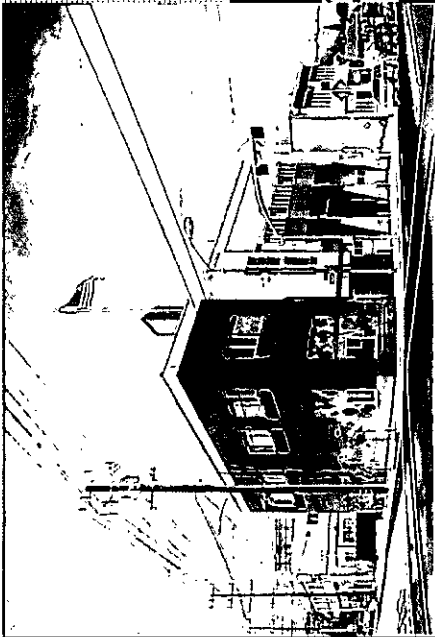
Green Street
Visitacion Valley
San Francisco

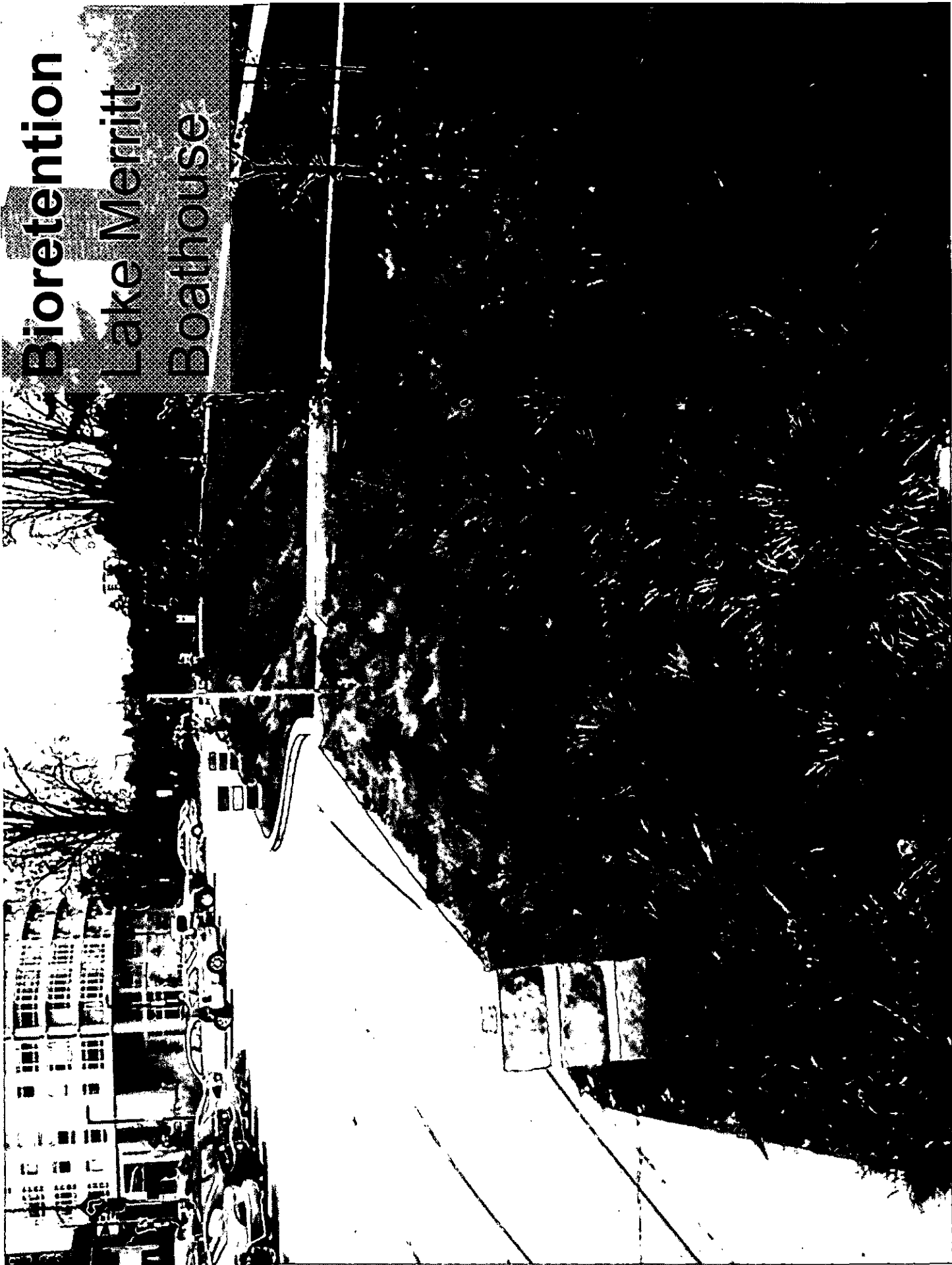


Pervious pavement in parking aisles and crosswalks

Bulb-out bioretention

Oakland's Fire Station 18 LEED Gold & Pervious Parking



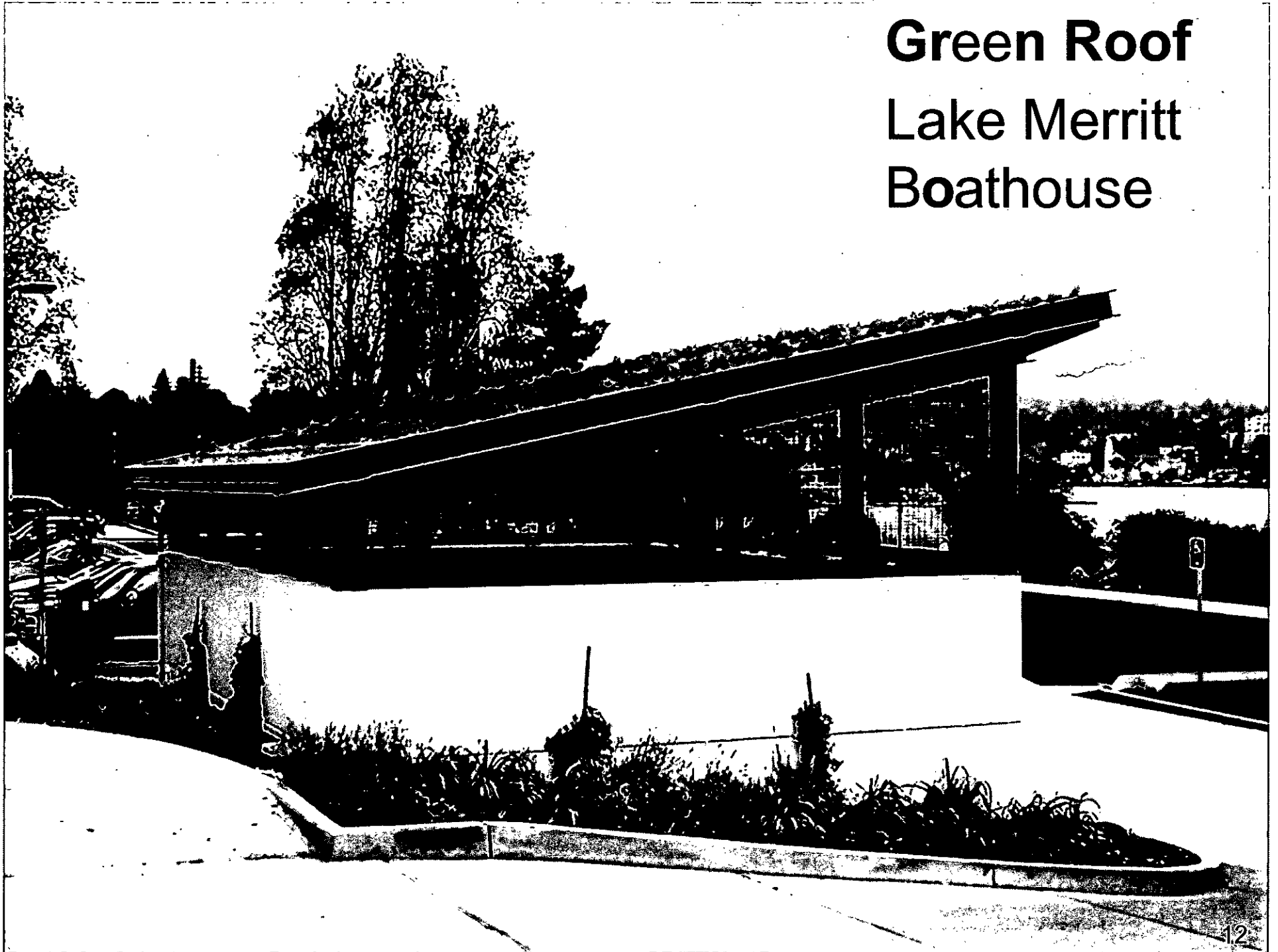


Bioretention

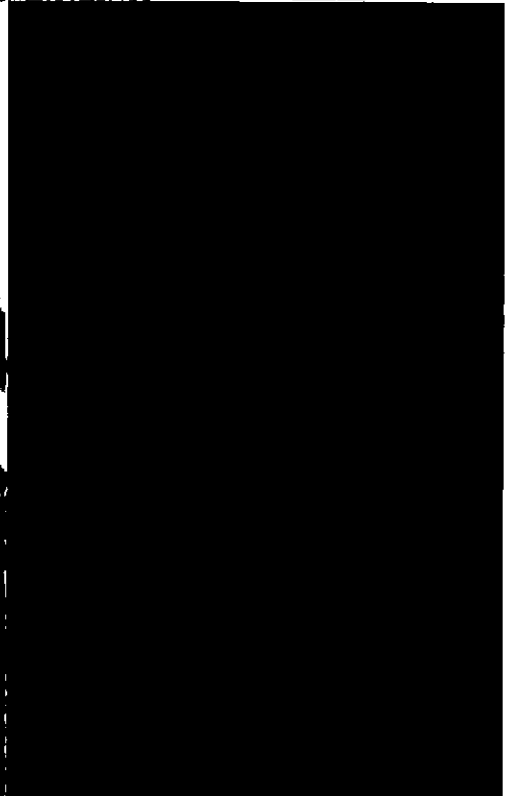
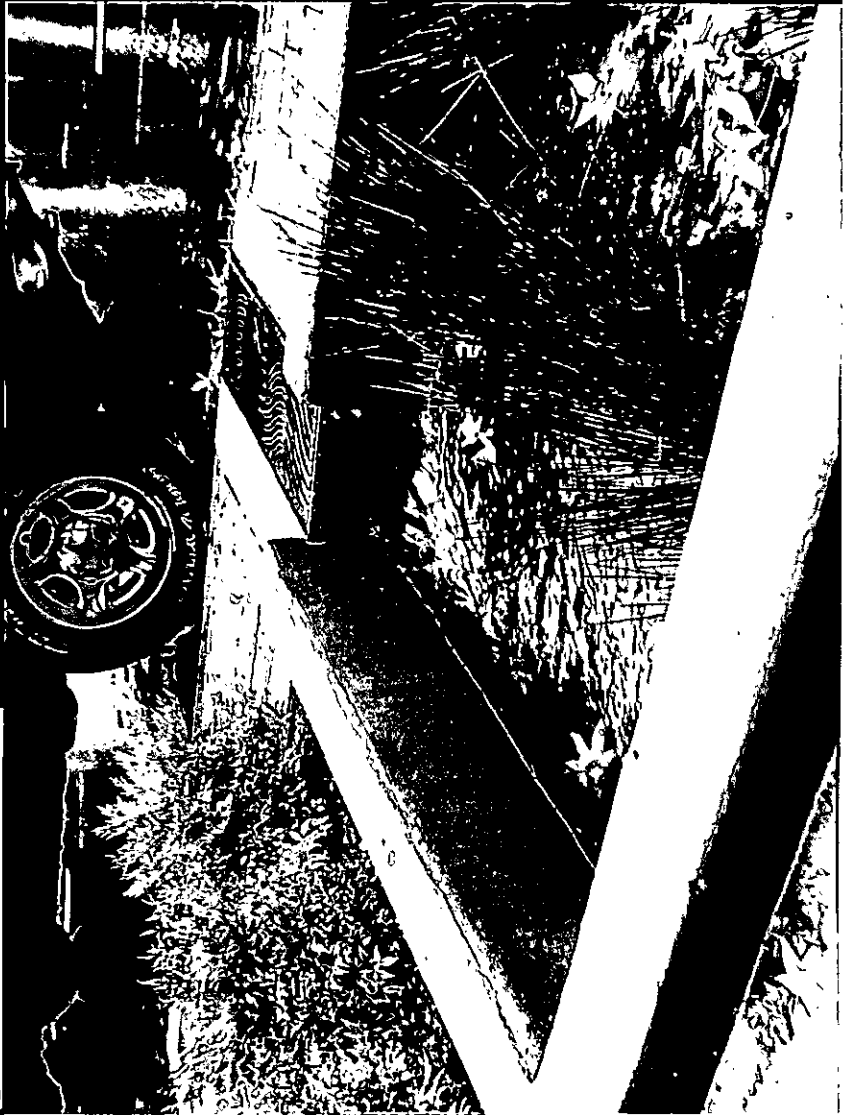
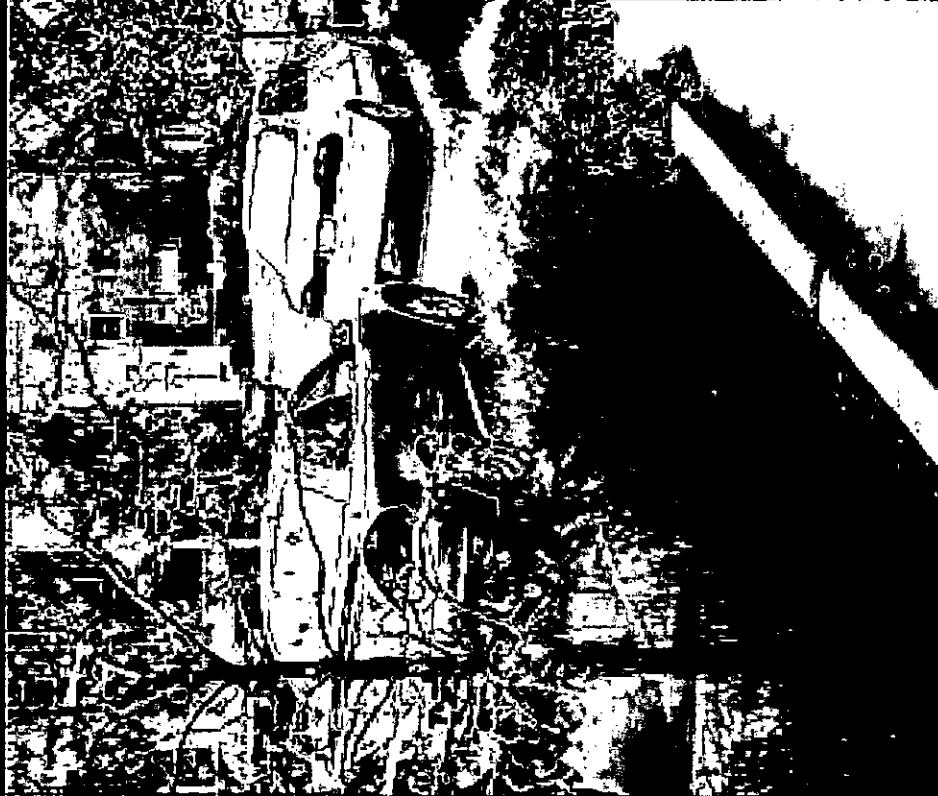
Lake Merritt

Boathouse

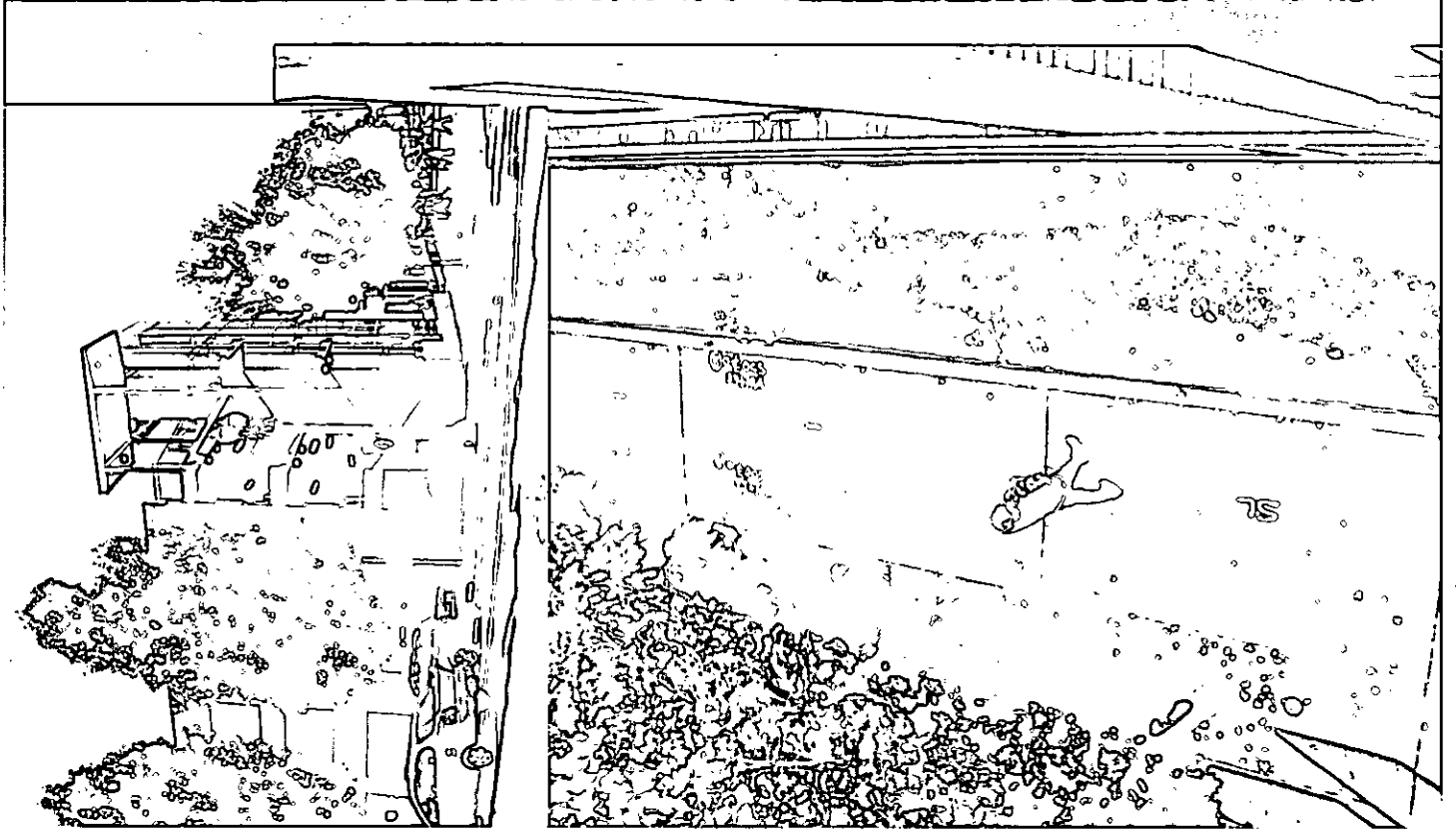
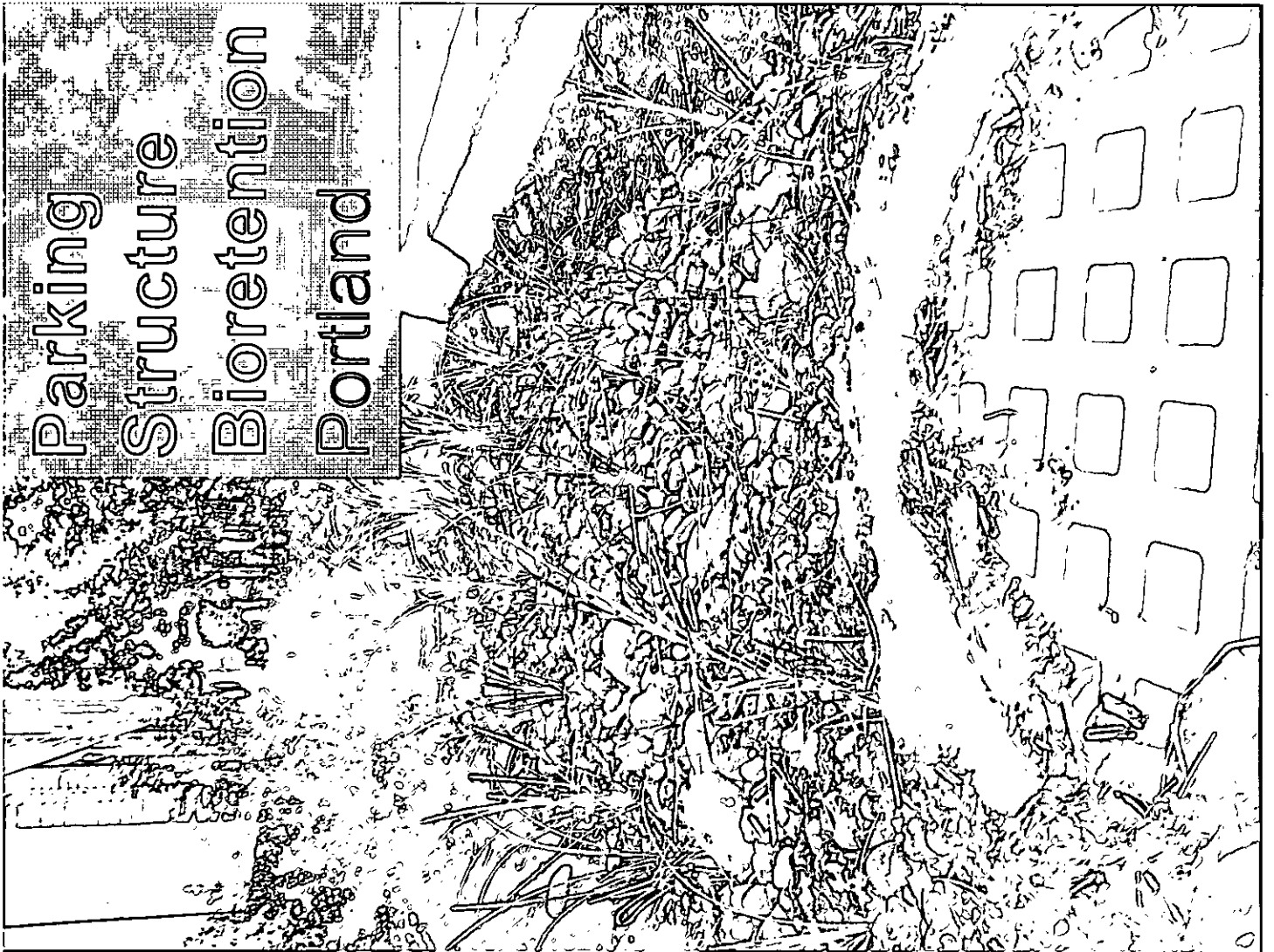
Green Roof Lake Merritt Boathouse



Green Streets Bioretention Portland



Parking Structure Bioretention Portland





Summary

- **Regionwide requirements in place**
- **Projects in the ground now**
- **Significant opportunities in existing urban fabric for multiple benefits**