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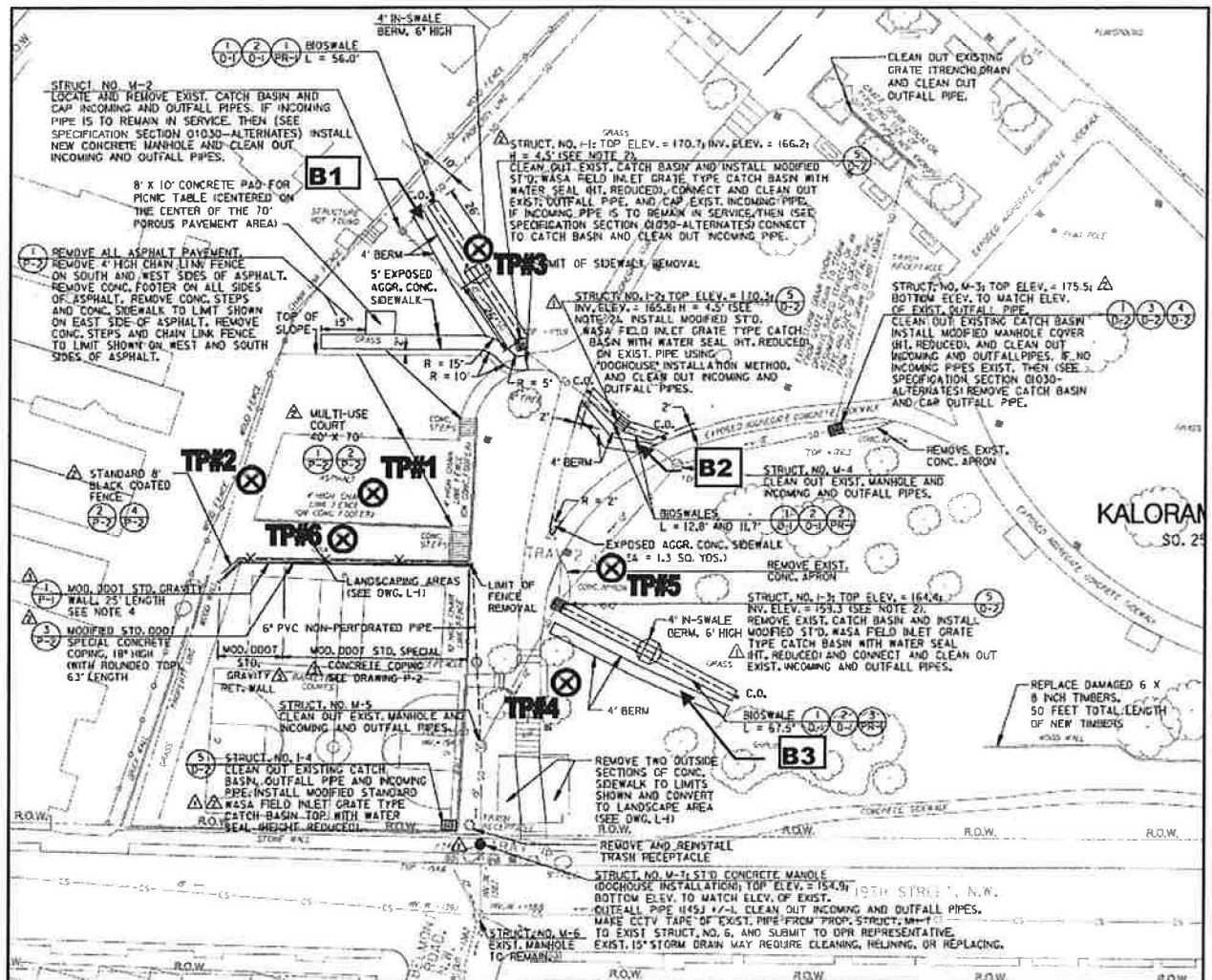
Task 2: Investigation of the Existing Conditions for Compliance

On June 6, 2012 Volkert conducted an investigation at the Kalorama Park site. The purpose of our investigation was to evaluate the conditions in the field and determine if further steps are required to complete the construction of the site.

We took samples at 6 locations throughout the site. Five of these were test pits were in lawn areas (TP#1 through TP#5) and one was a composite sample taken in the planting bed (TP#6) adjacent to the basketball court. Various excavations in this planting bed were taken to understand the condition of the entire area.

We also conducted a visual evaluation of the berms (B1, B2, and B3), planting beds, and other constructed elements. Our investigation of the site revealed that various elements of the proposed improvements were not properly constructed. The following are our findings and recommendations.

A. Site Plan



Site Plan from sheet 4 of the construction drawings, dated 11/6/2009

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B. Soil Condition – Test Pits

Locations (See Site Plan, above)

The location for the test pits were determined based on observations during renovation of the park. It is believed that construction procedures used did not comply with the construction drawings, which resulted in construction debris being buried under the lawn areas.



Weather Conditions

Weather conditions were sunny and fair with low humidity. Rain fall occurred the previous day.

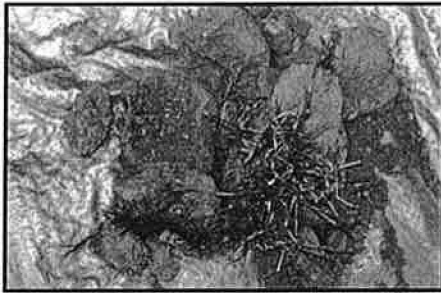
General Method

The pits were dug using small hand tools (pick ax, shovel, and a manual auger). The pits were dug to a depth sufficient to determine the extent of construction and nature of the soil medium.



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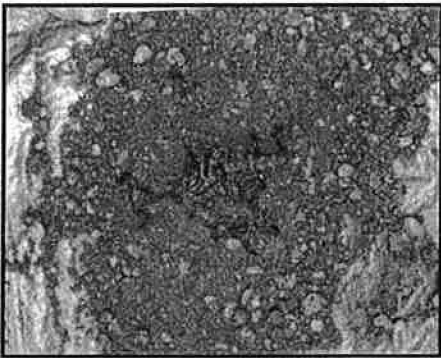
TP#1 - Test Pit No. 1:



TP#1: 0"-12"

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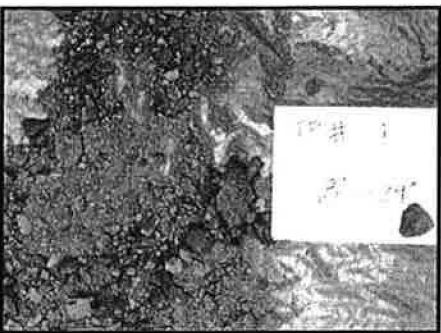
The top layer of test pit #1 consists of clay like medium that appears to be bonded together. Grass has not established to a satisfactory condition and appears in only small patches. At 6" we encountered a slightly loamy sand mix.



TP#1: 12"-18"

TP#1: 12"-18"

At 12 to 18 inches, we encountered layers of sand and construction debris, such as filter fabric. The filter fabric layer was found at 18" between two layers of sand. The sand layers were 2"-3" thick each.



TP#1: 18"-24"

TP#1: 18"-24"

At 18 to 24 inches, we encountered sandy soil and construction debris. The construction debris consisted of pieces of concrete, asphalt, brick, and filter fabric.

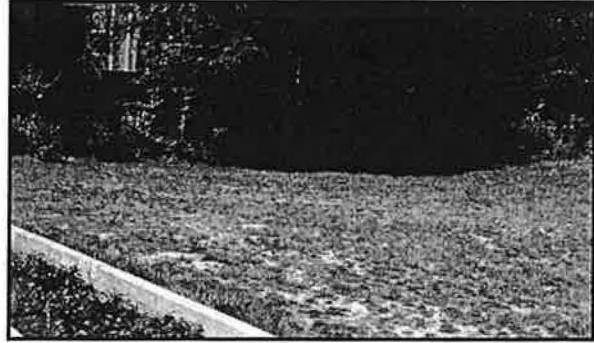
TP#1: 24" and deeper

As the boring process continued it was clear the layer of sand mixed with construction debris extended throughout the area around TP#1.

OBSERVATION	INITIAL RECOMMENDATIONS
See Above.	Remove top 12" of material and provide suitable mix.

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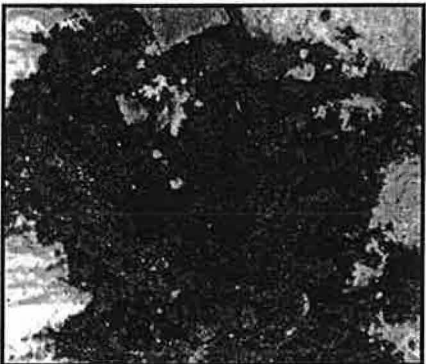
TP#2 - Test Pit No. 2:



TP#2: 0"-12"

TP#1: 0"-12"

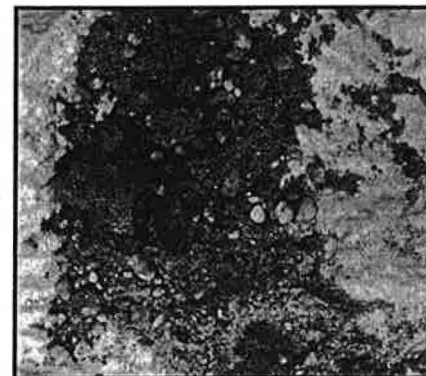
The top layer of test pit #2 consists of clay like medium that appears to be bonded together. Grass has not established to a satisfactory condition and appears in only small patches. At 6" we encountered a slightly loamy sand mix.



TP#2: 12"-18"

TP#1: 12"-18"

At 12 to 18 inches, we encountered layers of sand and construction debris, such as filter fabric. The filter fabric layer was found at 18" between two layers of sand. The sand layers were 2"-3" thick each.



TP#2: 18"-24"

TP#1: 18"-24"

At 18 to 24 inches we encountered sandy soil and construction debris. The construction debris consisted of pieces of concrete, asphalt, brick, and filter fabric.

TP#1: 24" and deeper

As the boring process continued it was clear the layer of sand mixed with construction debris extended throughout the area around TP#2.

OBSERVATION

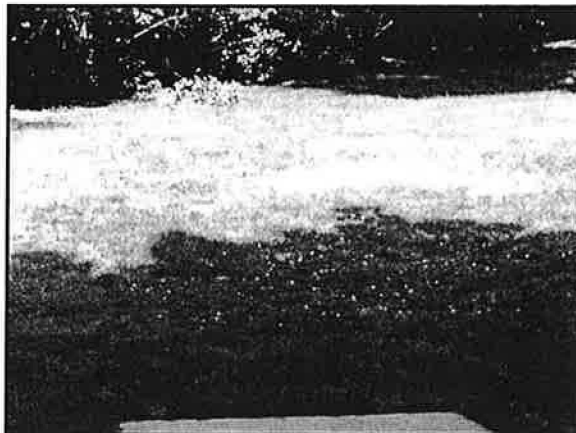
See Above.

INITIAL RECOMMENDATIONS

- Remove top 12" of material and provide suitable mix.
- Treat with sod or seed.

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TP#3 - Test Pit No. 3:



TP#3: 0"-12"

TP#3: 0"-12"

At the top layer of test pit #3 the grass seemed to have taken normally. However, the grass mix appeared to contain weeds. At 2 to 12 inches we encountered natural soil with some small rocks.



TP#3: 12"-24"

TP#3: 12"-24"

At 18 to 24 inches we encountered a slightly sandy medium with some small rocks. The soil moisture appeared suitable.

OBSERVATION	INITIAL RECOMMENDATIONS
See Above.	a. Remove top 6" of material and provide suitable mix. b. Treat with sod or seed.

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TP#4 - Test Pit No. 4:



TP#4: 0"-12"

TP#4: 0"-12"

At 0 to 12 inches we encountered soil mixed with sand, clay and construction entrance debris. Soil excavation was hindered by numerous stones and hard soil.

GENERAL:

Review of the construction drawings indicates that this area was a construction entrance during the construction of the site improvements. The stones and the hard subsurface encountered may be the result of improper removal of the construction entrance material.

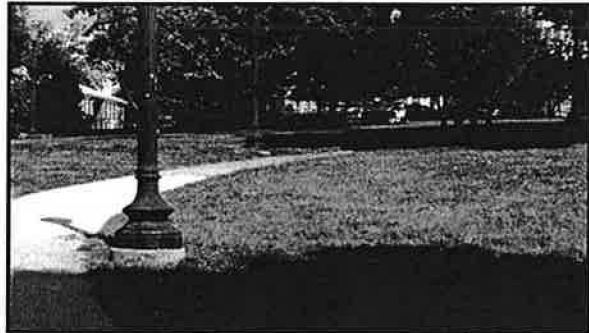
OBSERVATION

See Above.

INITIAL RECOMMENDATIONS

- Remove top 36" of material and provide suitable mix.
- Treat with sod or seed.

TP#5 - Test Pit No. 5:



TP#5: 0"-12"

TP#5: 0"-12"

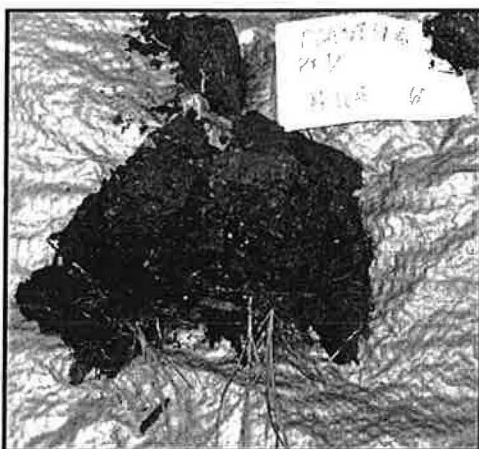
At 0 to 12 inches we encountered natural soil. Soil appeared to be slightly dryer than expected, but otherwise acceptable.

OBSERVATION

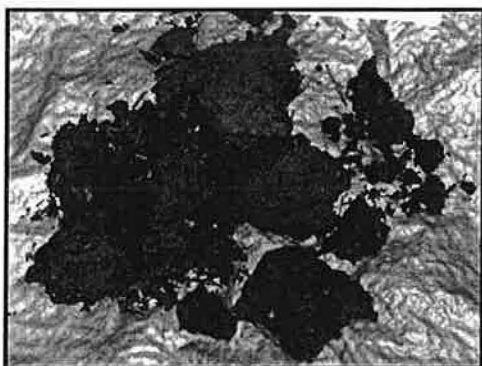
See Above.

INITIAL RECOMMENDATIONS

- Remove top 6" of material and provide suitable mix.

TP#6 - Test Pit at Planting Bed:**TP: 0"-6"****TP#6: 0"-6"**

At 0 to 6 inches we encountered a layer of mulch on wet soil. The clay like medium appeared to be inadequate. However, the plants appeared healthy. Roots of shrubs have spread through the planting medium. Weeds are abundant. Roots of weeds remain on the top 1 inch of the planting soil.

**TP: 6"-12"****TP#6: 6"-12"**

At 6 to 12 inches the soil medium was continuously moist with minor construction debris.

OBSERVATION

See Above.

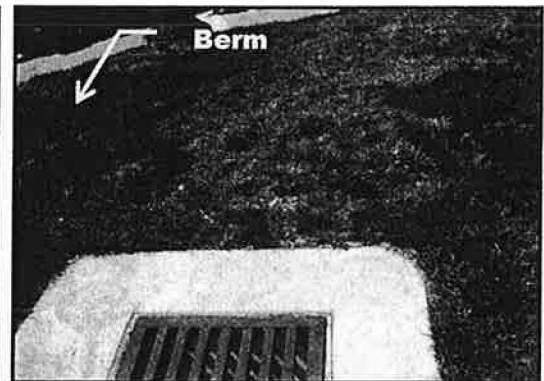
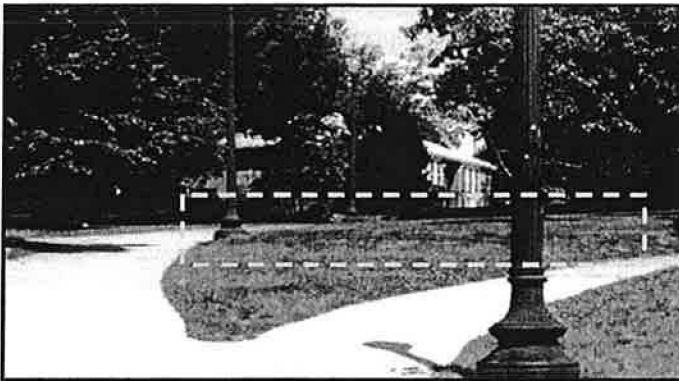
INITIAL RECOMMENDATIONS

Remove weeds (Also see recommendations in the Plantings section).

C. Berms (Adjacent to Bioswales) & Drainage

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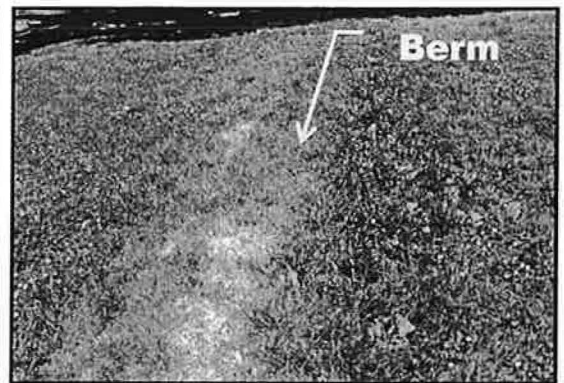
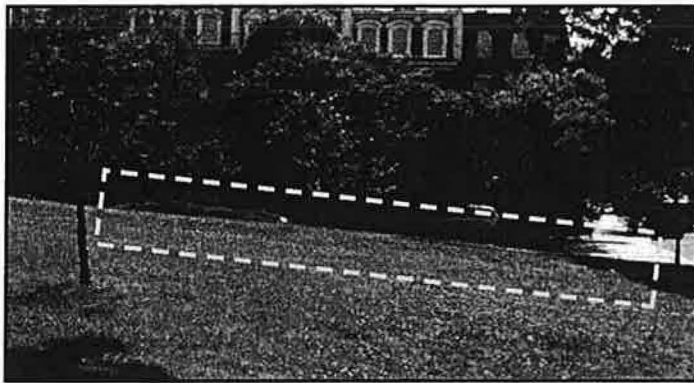
Berm B2



Catch Basin at Berm B2

<i>OBSERVATION</i>	<i>INITIAL RECOMMENDATIONS</i>
<ul style="list-style-type: none">• Bioswale appears to be working normally.• Berm is mostly well covered with lawn. In some area, bare patches appear.• Catch basin at the end of bioswale is dry.	<ul style="list-style-type: none">a. Treat area with seed or sod.b. Flush catch basin and cleanout pipes.

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Berm B3

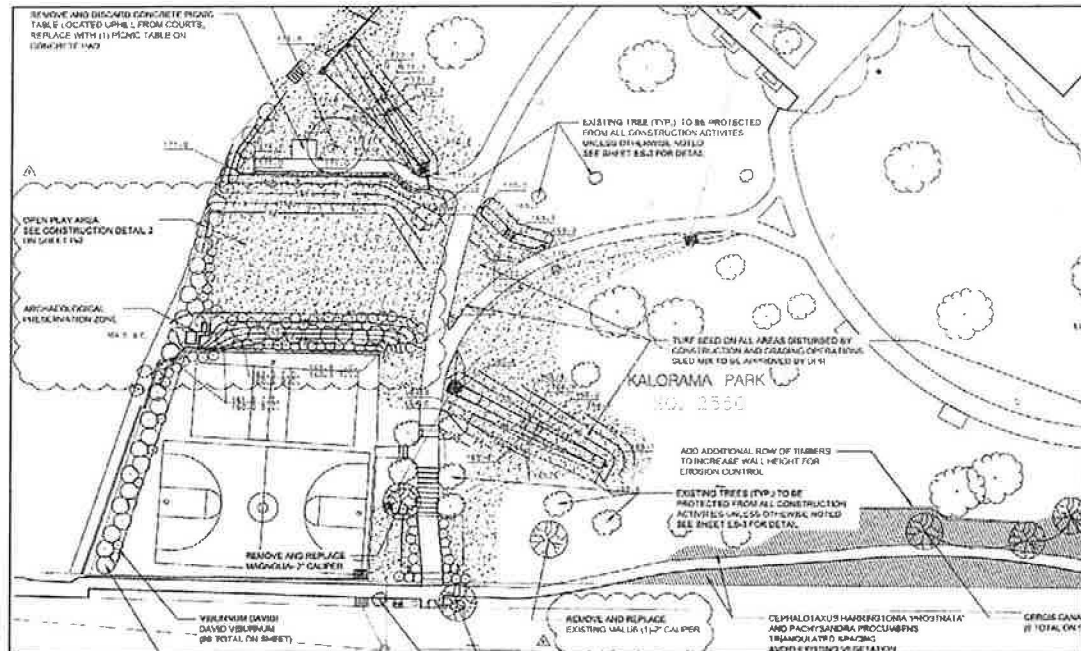


Catch Basin at Berm B3

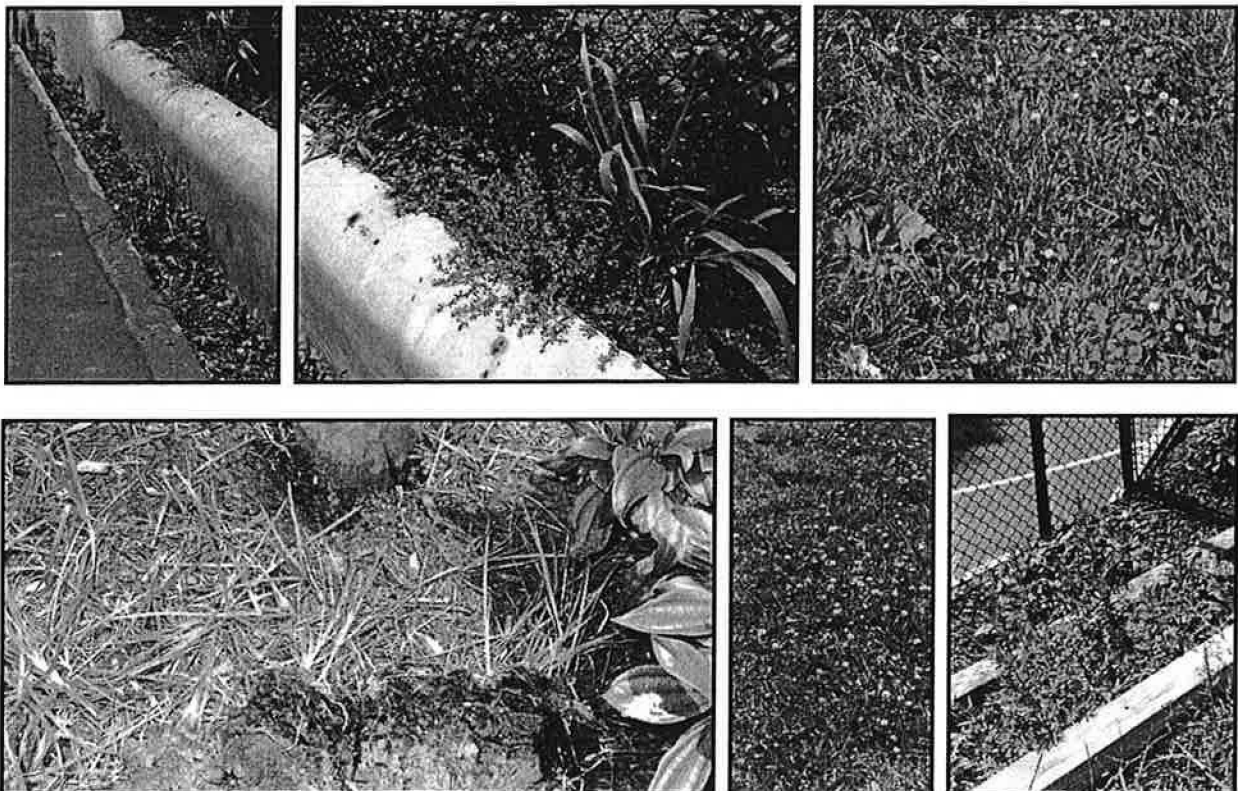
<i>OBSERVATION</i>	<i>INITIAL RECOMMENDATIONS</i>
<ul style="list-style-type: none">• Bioswale appears to be working normally.• Berm is mostly well covered with lawn. In some area, bare patches appear.• Catch basin at the end of bioswale has miscellaneous debris.	<ul style="list-style-type: none">a. Prepare bare areas around the catch basin for new lawn.b. Treat area with seed or sod.c. Remove debris in catch basin. Flush catch basin and cleanout pipes.

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D. Plantings



**Landscape Plan from sheet 16 of the construction drawings, dated 11/6/2009,
Note: Timber retaining wall is not shown**



Weeds

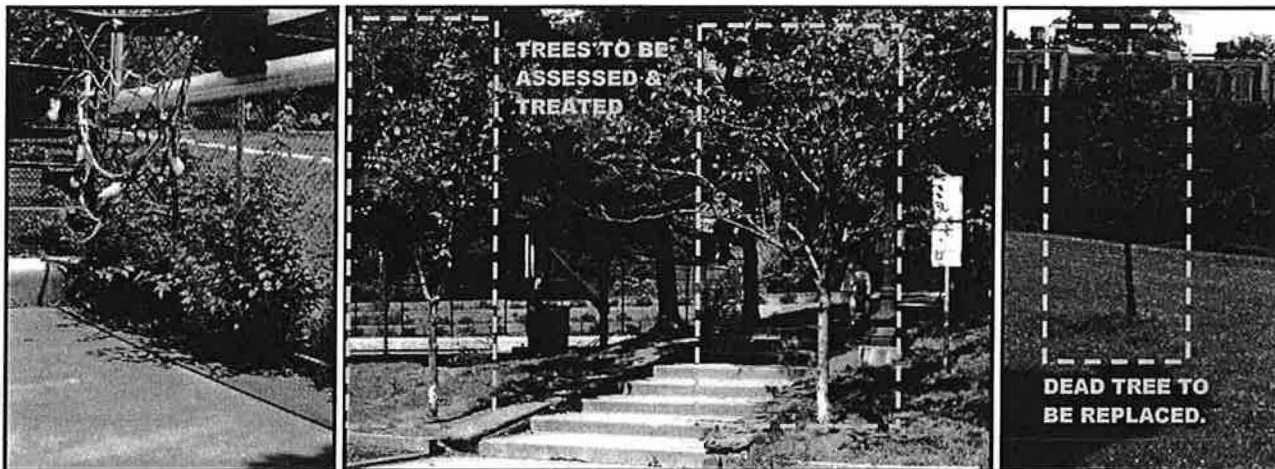
OBSERVATION

There are weeds throughout the site.

INITIAL RECOMMENDATIONS

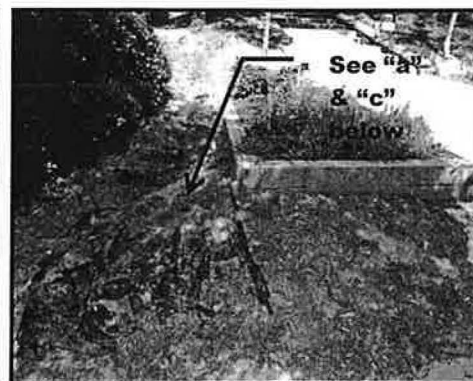
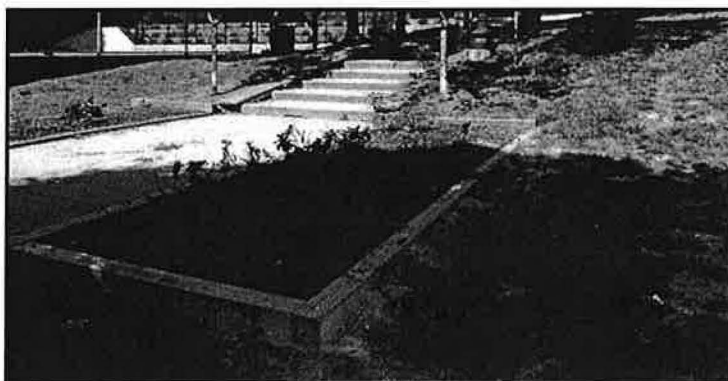
a. Remove weeds.

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Pruning & Trees

OBSERVATION	INITIAL RECOMMENDATIONS
<ul style="list-style-type: none"> Vines and trees are hanging over planted materials and site features. Trees at the 19th Street NW entrance into the park appear to be in poor health. Roots may have been damaged from construction activity. 	<ol style="list-style-type: none"> Prune shrubs and ground cover. Have tree roots pruned and treated by arborist. Trees that are dead or dying should be replaced or treated as directed by arborist.

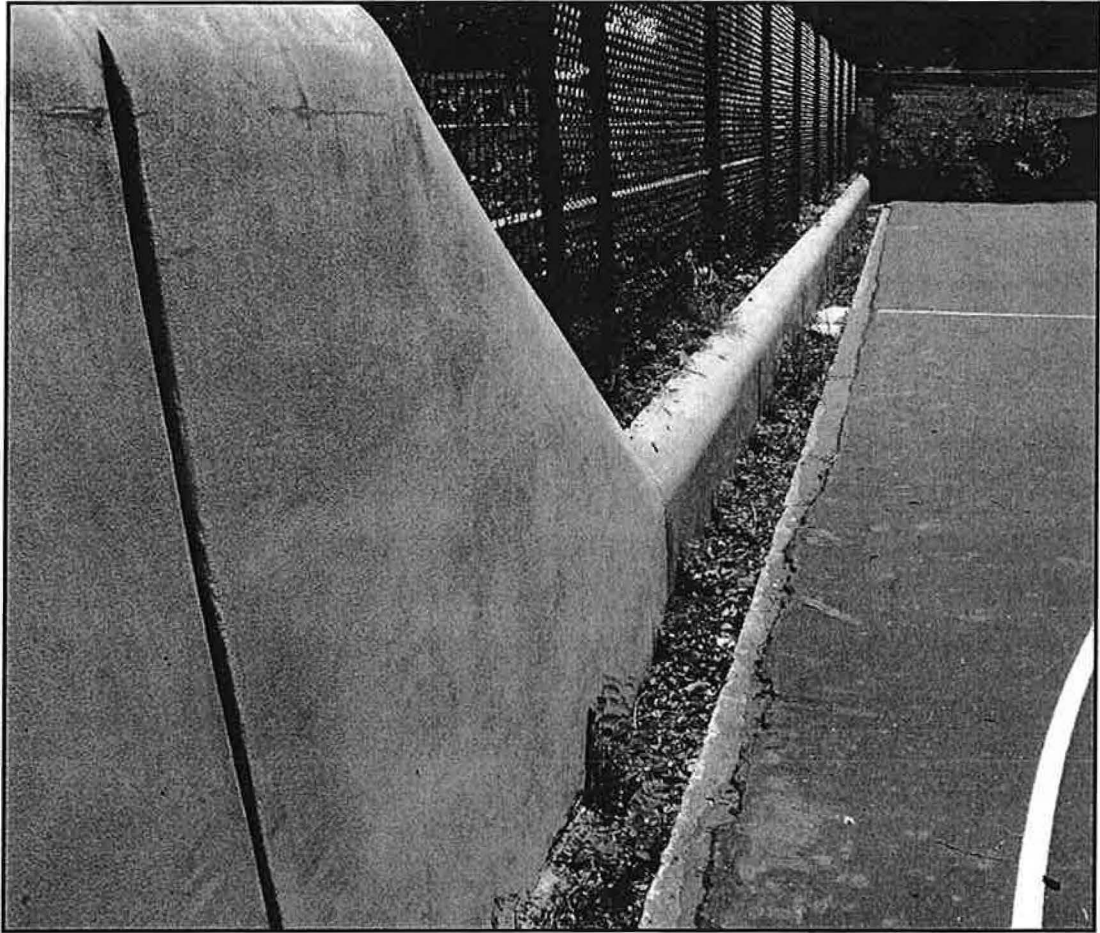


Shrubs and Groundcover at West Entrance

OBSERVATION	INITIAL RECOMMENDATIONS
<ul style="list-style-type: none"> Most shrubs and other plantings in the 19th Street entrance planters are in poor condition. Soil condition seems to be a loamy clay. Unlike the condition in Soil Test Pit Area 6, the plants in this area do not seem to have access to the moisture and are in decay. Planting beds at the west entrance of the park are full of weeds and grass. Grass adjacent to planters is in poor condition. Filter fabric and debris is exposed around planters. 	<ol style="list-style-type: none"> Remove filter fabric, debris, and weeds. Remove top 6" of soil in planter boxes and replace with planting soil. Install heavy duty filter fabric. Cut opening in fabric to allow shrubs to grow. Install a 3" thick layer of mulch to the top of timber plank. Shrubs should stay in place, undisturbed. Treat area around planter boxes with sod or seed.

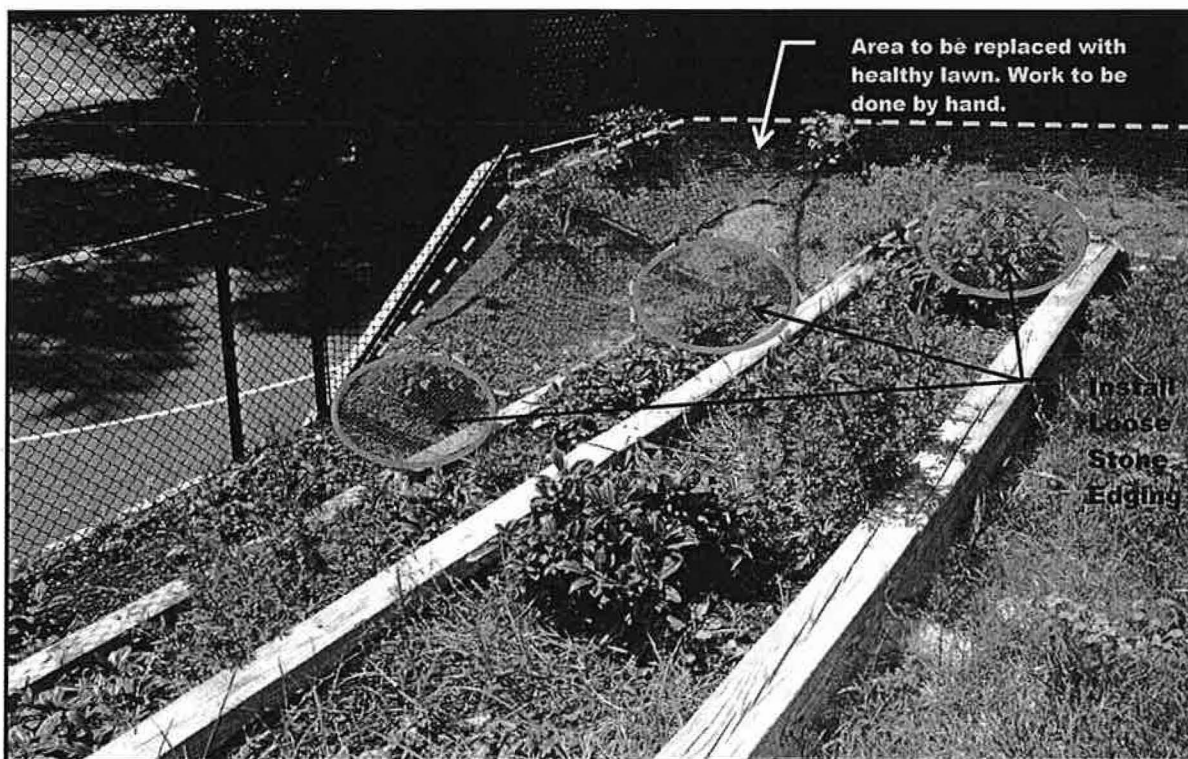
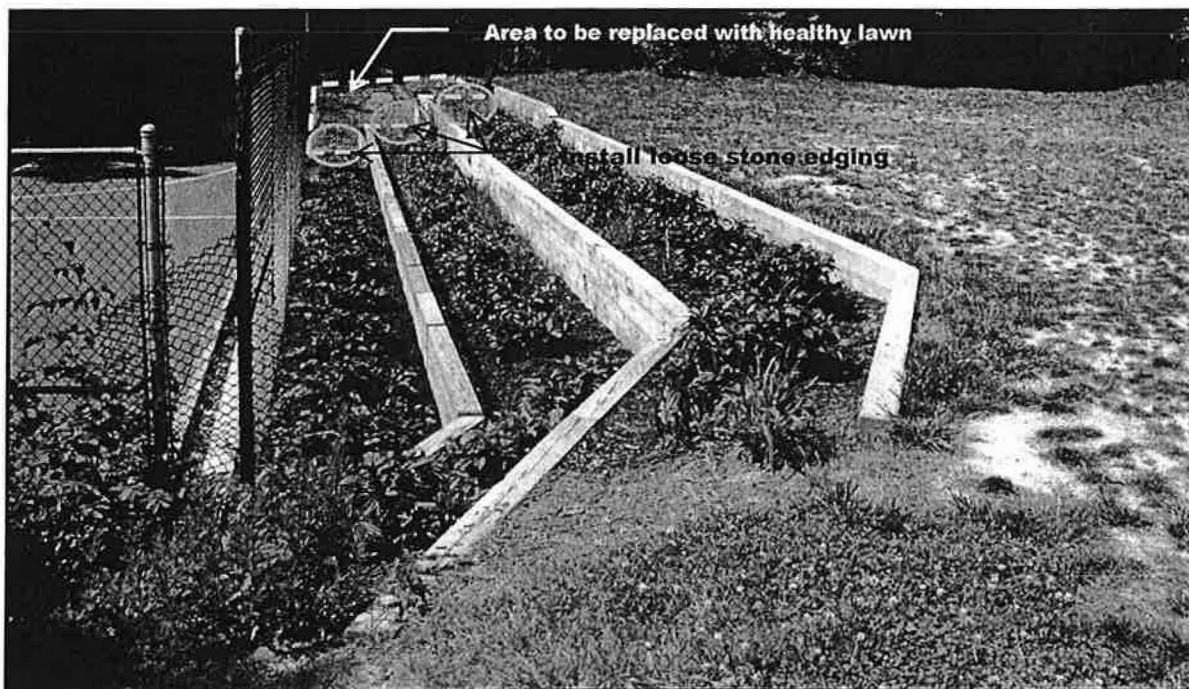
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E. Areas Around Walls And Planters



Concrete Wall and Paving

OBSERVATION	INITIAL RECOMMENDATIONS
<ul style="list-style-type: none">• Pavement between basketball court and retaining wall is missing and hazardous.• Foundation of previously existing basketball court remains in place, and is an obstruction to anyone using the court.	<ul style="list-style-type: none">a. Remove top 12" of old basket ball hoop concrete foundation.b. Install basketball court surface with a concrete base at gap between retaining wall and existing court. Provide a continuous expansion joint between wall and subbase.

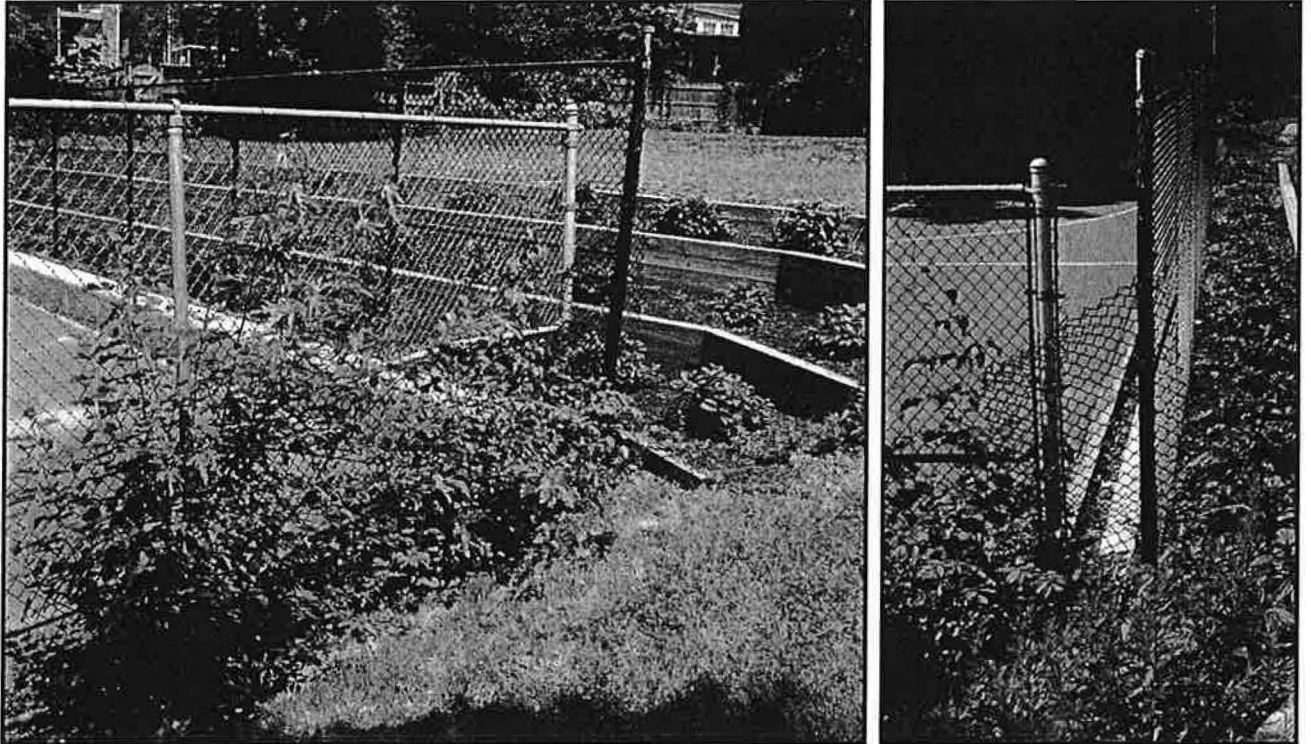


Terraced Timber Retaining Wall and Planter

OBSERVATION	INITIAL RECOMMENDATIONS
<ul style="list-style-type: none"> • Terraced wall was installed by second contractor without plans. Layout was coordinated with DPR. • Terraced planting bed at the north ends is eroding and existing filter fabric is falling apart. 	<p>a. Remove planting and filter fabric at the north end or the terraced planter and replace with sod or seed. Provide $\pm 18"$ dia. rounded loose stone edging between grass and planter to separate lawn from planting (see images above). There should be no digging past 12".</p>

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F. Fencing



<i>OBSERVATION</i>	<i>INITIAL RECOMMENDATIONS</i>
<ul style="list-style-type: none">• New black fence and previously existing fence are poorly tied together with miscellaneous fence fabric.	<ol style="list-style-type: none">a. Correctly tie new fence fabric to fence posts.

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TECHNICAL MEMO 2 - RECOMMENDATIONS

PROJECT: Kalorama Park (Volkert No. 230405.60)

DATE OF REPORT: June 29, 2012

Prepared by: Oliver Boehm and Bereket Merzi, Volkert

Description of Technical Memo 1 Site Investigation Notes - Task 1: Review of Existing Documentation and Task 2: Investigation of the Existing Conditions for Compliance

On June 6, 2012 Volkert conducted an investigation at the Kalorama Park site. The purpose of our investigation was to evaluate the conditions in the field and determine if further steps are required to complete the construction of the site.

We took samples at 6 locations throughout the site. Five of these were test pits in lawn areas (TP#1 through TP#5) and one was a composite sample taken in the planting bed (TP#6) adjacent to the basketball court. The location for the test pits were determined based on observations during renovation of the park. It is believed that construction procedures during the two previous contracts did not comply with the construction drawings, which resulted in construction debris being buried under the lawn areas.

We also conducted a visual evaluation of the berms (B1, B2, and B3), planting beds, and other constructed elements. Our investigation of the site revealed that various elements of the proposed improvements were not properly constructed or have deteriorated.

A thorough report of the Site Investigation is documented in Technical Memo #1 submitted on June 18, 2012 by Volkert for review.

Task 3: Recommendations for Improvements

This plan represents the site improvement zones and berms, which are describe in this technical memo. This information will be used to develop biddable plans and specifications for improvements to Kalorama Park.

