



# City of Lakewood

## Facility Details

April 1, 2009

# The City of Lakewood

## Individual Site Reports

| <b>City Site:</b>                        | <b>Page:</b> |
|--|--------------|
| 1. Simon Bolivar Park Cover Page         | 1            |
| Simon Bolivar Park Site Map              | 2            |
| Simon Bolivar Park Audit Photos          | 3            |
| Simon Bolivar Park Landscape Details     | 4-9          |
| 2. Bloomfield Park Cover Page            | 10           |
| Bloomfield Park Site Map                 | 11           |
| Bloomfield Park Audit Photos             | 12           |
| Bloomfield Park Landscape Details        | 13-15        |
| 3. Biscailuz Park Cover Page             | 16           |
| Biscailuz Park Site Map                  | 17           |
| Biscailuz Park Audit Photos              | 18           |
| Biscailuz Park Landscape Details         | 19-21        |
| 4. Candle Verde Park Cover Page          | 22           |
| Candle Verde Park Site Map               | 23           |
| Candle Verde Park Landscape Details      | 24           |
| 5. Cherry Cove Park Cover Page           | 25           |
| Cherry Cove Park Site Map                | 26           |
| Cherry Cove Landscape Details            | 27           |
| 6. Indoor Details for All Surveyed Sites | 28           |



## City of Lakewood

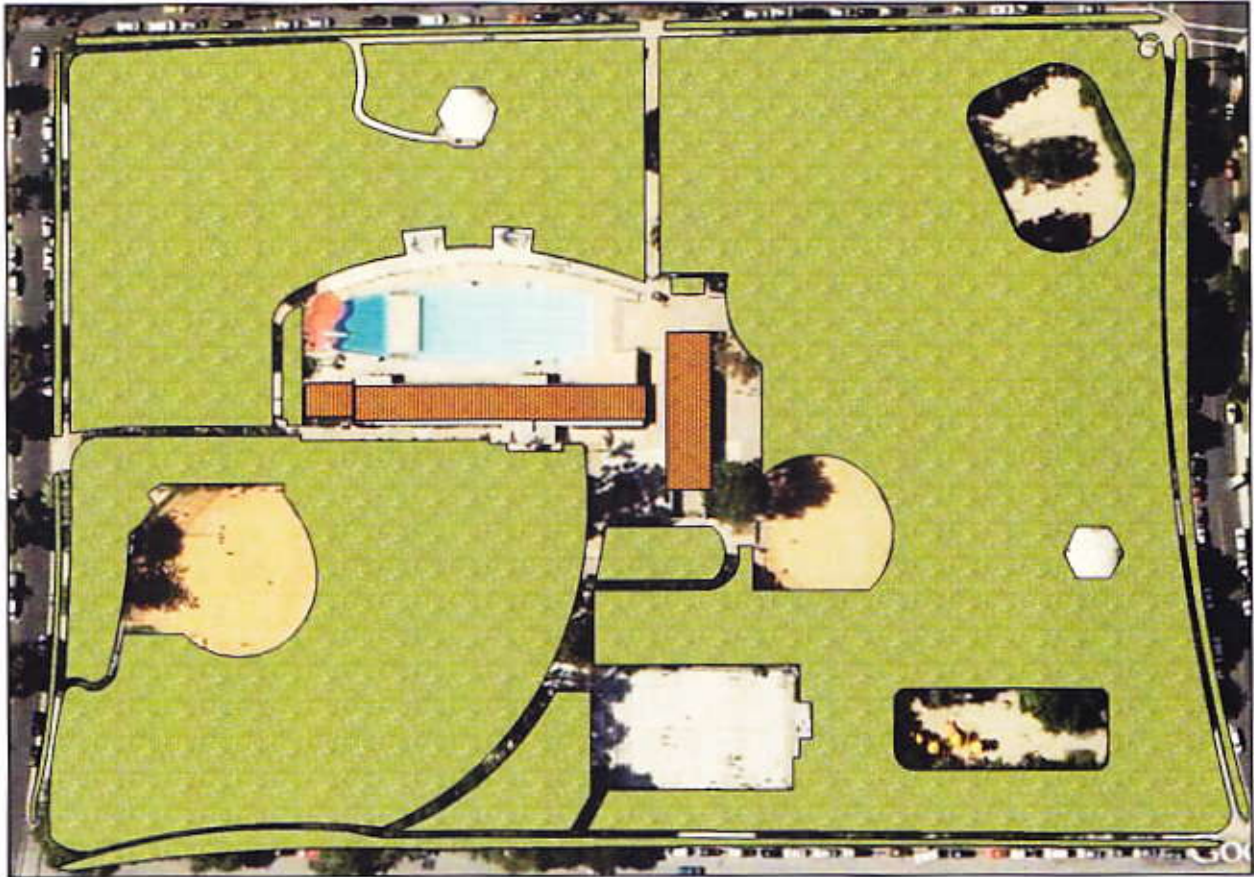
### Simon Bolivar Park


3300 Del Amo Boulevard

Lakewood, CA 90712

|                                  |                          |
|----------------------------------|--------------------------|
| <b>Audit Date:</b>               | <b>November 13, 2008</b> |
| <b>Auditor:</b>                  | <b>Enrique Zanetti</b>   |
| <b>Assistant:</b>                | <b>Chris Jackson</b>     |
| <b>Building Area:</b>            | <b>9,382 sq ft</b>       |
| <b>Landscape Irrigated Area:</b> | <b>333,996 sq ft</b>     |
| <b>Total Area:</b>               | <b>343,378 sq ft</b>     |

**City of Lakewood**  
**Simon Bolivar Park**  
3300 Del Amo Boulevard  
Lakewood, CA 90712



-  Building Area: 9,382 sq ft
-  Landscape Irrigated Area: 333,996 sq ft

## Simon Bolivar Park

November 13, 2008



Sprinklers that are installed too low cause spray/stream blockage and create dry circles around the sprinklers.



Poor distribution uniformity may be a result of having tipped heads in the irrigation system. Correcting uniformity issues could result in water savings through decreases in run times.



The above photos are examples of leaking and broken heads that are creating major water losses. A broken/leaking head can lead to reduced pressure over an entire station.



Here is an example of a clogged nozzle. Clogged nozzles at Simon Bolivar Park can be easily reduced by routine maintenance.



Arc misalignment is a problem that is easy to solve during maintenance. On spray stations, this is causing wasted water and on rotor stations it is also affecting the distribution uniformity.



Overspray is often a problem on sidewalks and parkways. We recommend adjusting the radius of throw or replacing the nozzles with strip series nozzles types.









### Landscape Data - Active Stations By Controller

| Facility: Simon Bolivar Park                         |              |                |               |                | Address: 3300 Del Amo Blvd., Lakewood, CA |       |              |               |         |                    |                     |     |        |                | Location: See map   |         |             |                   |           | Work Order:                         |           |                   |                  |                   |                 |              |          |       |                  |                            |
|--|--------------|----------------|---------------|----------------|---|-------|--------------|---------------|---------|--------------------|---------------------|-----|--------|----------------|---------------------|---------|-------------|-------------------|-----------|-------------------------------------|-----------|-------------------|------------------|-------------------|-----------------|--------------|----------|-------|------------------|----------------------------|
| Irrigation Controller                                |              |                |               |                | WBIC?: N                                  |       |              |               |         | Total Stations: 24 |                     |     |        |                | Active Stations: 22 |         |             |                   |           | Area Description: west & south side |           |                   |                  |                   |                 |              |          |       |                  |                            |
| Make & Model: Rain Master Sentar II (Controller III) |              |                |               |                |   |       |              |               |         |                    |                     |     |        |                |                     |         |             |                   |           |                                     |           |                   |                  |                   |                 |              |          |       |                  |                            |
| Station No.  | Microclimate | Plant Material | Plant Density | Sprinkler Type |   |       |              |               |         |                    | Sprinkler Condition |     |        |                |                     |         |             | System Condition  |           |                                     |           |                   |                  |                   | Replace Nozzles | Planter Area | Quantity | Notes |                  |                            |
|  |              |                |               | Sprinkler Make | Rotor                                     | Spray | Stream Rotor | Rotary Nozzle | Bubbler | Micro Spray        | Drip                | Low | Tipped | Arc Misaligned | Clogged             | Leaking | Broken Head | Non-rotating Head | Overspray | Spray Blocked                       | Effective | Head-Head Spacing | Pressure Reading | High/Low Pressure |                 |              |          |       | Broken Irr. Line | Valve Malfunction          |
| 1  | M            | TTr            | H             | HO             | 7   |       |              |               |         |                    |                     |     |        |                |                     |         |             | 1                 |           | Y                                   | Y         | 40                | L                |                   |                 | 110          |          |       |                  | Thompson heads             |
| 3  | H            | T              | M             | H              | 12  |       |              |               |         |                    |                     |     |        |                |                     |         |             |                   |           | Y                                   | Y         | 20                | L                |                   |                 |              |          |       |                  |                            |
| 4  | M            | TTr            | H             | HO             | 5   |       |              |               |         |                    |                     |     |        |                |                     |         |             |                   |           | Y                                   | Y         | 30                | L                |                   |                 |              |          |       |                  |                            |
| 5  | H            | T              | H             | HR             | 2   |       |              |               |         |                    |                     |     |        |                |                     |         |             |                   |           | Y                                   | Y         | 40                | L                |                   |                 |              |          |       |                  |                            |
| 6  | M            | TTr            | H             | HO             | 3   |       |              |               |         |                    |                     |     |        |                |                     |         |             |                   |           | Y                                   | Y         | 35                | L                |                   |                 | 111          |          |       |                  |                            |
| 7  | H            | T              | H             | T              |   | 38    |              |               |         |                    |                     |     |        |                |                     |         |             |                   |           | N                                   | Y         |                   | OK               |                   |                 | 117          |          |       |                  | a lot of old leaking heads |
| 8  | M            | T              | H             | HO             | 3   |       |              |               |         |                    |                     |     |        |                |                     |         |             |                   |           | Y                                   | Y         | 38                | L                |                   |                 | 118          |          |       |                  |                            |
| 9  | H            | T              | H             | HO             | 2   |       |              |               |         |                    |                     |     |        |                |                     |         |             |                   |           | Y                                   | Y         | 45                | OK               |                   |                 | 119          |          |       |                  |                            |
| 10   | M            | TTr            | H             | HO             | 8   |       |              |               |         |                    |                     |     |        |                |                     |         |             |                   |           | Y                                   | Y         | 30                | L                |                   |                 |              |          |       |                  |                            |
| 11   | M            | TTr            | H             | HO             | 6   |       |              |               |         |                    |                     |     |        |                |                     |         |             |                   |           | Y                                   | Y         | 35                | L                |                   |                 |              |          |       |                  |                            |
| 12   | M            | TTr            | H             | HO             | 7   |       |              |               |         |                    |                     |     |        |                |                     |         |             |                   |           | Y                                   | Y         | 35                | L                |                   |                 |              |          |       |                  | 1 is not rotating          |

| Reference Codes |                      |    |              |         |        |                |          |             |
|-----------------|----------------------|----|--------------|---------|--------|----------------|----------|-------------|
| Microclimate    | Plant Material H/M/L |    |              | Density |        | Sprinkler Make |          | Area        |
| H               | High                 | T  | Turf         | H       | High   | R              | Rainbird | S 25 sq ft  |
| M               | Medium               | S  | Shrubs       | M       | Medium | T              | Toro     | M 50 sq ft  |
| L               | Low                  | G  | Ground Cover | L       | Low    | H              | Hunter   | L 100 sq ft |
|                 |                      | M  | Mixed        |         |        | I              | Irritrol |             |
|                 |                      | Tr | Trees        |         |        | O              | Other    |             |

| Soil Type                | Water Source |
|--------------------------|--------------|
| Clay                     | Potable O    |
| Loam                     | O Recycled   |
| Sand                     |              |
| Turf Information         |              |
| Existing Synthetic Turf: | N            |
| System Information       |              |
| Booster Pump:            | N            |
| Pressure Regulator:      | N            |

**Auditor Name: Enrique Zanetti**

**Auditor Name: Chris Jackson**

**Time In:**

**Appointment:**

## Landscape Data - Active Stations By Controller

|                              |   |                   |             |
|------------------------------|---|-------------------|-------------|
| Facility: Simon Bolivar Park | Address: 3300 Del Amo Blvd., Lakewood, CA | Location: See map | Work Order: |
|------------------------------|---|-------------------|-------------|

|   |          |                    |                     |                                     |
|---|----------|--------------------|---------------------|-------------------------------------|
| Irrigation Controller<br>Make & Model: Rain Master Sentar II (Controller III) | WBIC?: N | Total Stations: 24 | Active Stations: 22 | Area Description: west & south side |
|---|----------|--------------------|---------------------|-------------------------------------|

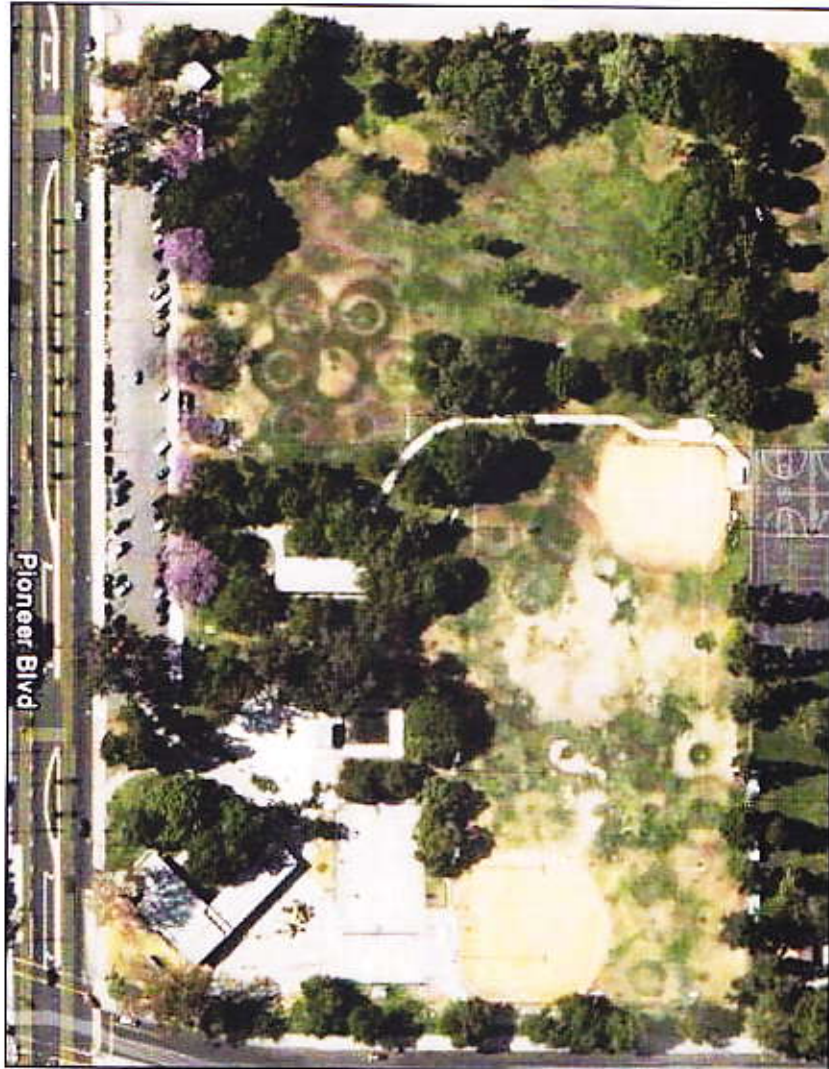
| Station No. | Microclimate | Plant Material | Plant Density | Sprinkler Type |       |       |              |               |         |             |      | Sprinkler Condition |        |                |         |         |             | System Condition  |           |               |           |                   |                  | Replace Nozzles | Planter Area | Quantity | Notes |                   |                  |                   |   |                                     |
|-------------|--------------|----------------|---------------|----------------|-------|-------|--------------|---------------|---------|-------------|------|---------------------|--------|----------------|---------|---------|-------------|-------------------|-----------|---------------|-----------|-------------------|------------------|-----------------|--------------|----------|-------|-------------------|------------------|-------------------|---|-------------------------------------|
|             |              |                |               | Sprinkler Make | Rotor | Spray | Stream Rotor | Rotary Nozzle | Bubbler | Micro Spray | Drip | Low                 | Tipped | Arc Misaligned | Clogged | Leaking | Broken Head | Non-rotating Head | Overspray | Spray Blocked | Effective | Head-Head Spacing | Pressure Reading |                 |              |          |       | High/Low Pressure | Broken Irr. Line | Valve Malfunction | Photograph                                    |                                     |
| 13          | M            | TTr            | H             | H              | 6     |       |              |               |         |             |      |                     | 1      |                | 2       |         |             |                   |           |               | 1         | 1                 | Y                | Y               | 35           | L        |       |                   | 122              |                   |   | 1 is not rotating                   |
| 14          | H            | T              | H             | HO             | 5     |       |              |               |         |             |      |                     | 3      | 1              |         |         |             |                   |           |               |           |                   | Y                | Y               | 40           | L        |       |                   | 125              |                   |   |                                     |
| 15          | H            | T              | H             | TO             |       | 58    |              |               |         |             |      |                     | 5      | 3              | 1       |         | 20          |                   |           |               |           | N                 | Y                |                 | OK           |          |       | 130               |                  |                   | old leaking heads & a Major broken head 6 gpm |                                     |
| 16          | M            | TTr            | H             | TO             |       | 39    |              |               |         |             |      |                     | 3      | 3              | 2       | 1       | 2           |                   |           |               | 5         |                   | Y                | Y               |              | OK       |       |                   | 132              |                   |   |                                     |
| 17          | H            | TTr            | H             | HT             | 7     |       |              |               |         |             |      |                     | 4      | 1              |         |         |             |                   |           |               |           |                   | Y                | Y               | 40           | L        |       |                   |                  |                   |   |                                     |
| 18          | M            | TTr            | H             | H              | 7     |       |              |               |         |             |      |                     | 3      |                | 3       |         |             |                   |           |               | 1         |                   | Y                | Y               | 45           | OK       |       |                   | 133              |                   |   | 1 is not rotating, is over watering |
| 19          | H            | TTr            | H             | HR             | 8     |       |              |               |         |             |      |                     | 2      | 3              | 1       |         |             |                   |           |               |           |                   | Y                | Y               | 40           | L        |       |                   |                  |                   |   |                                     |
| 20          | H            | T              | H             | TO             |       | 40    |              |               |         |             |      |                     | 2      | 4              | 6       |         | 14          |                   |           |               | 40        |                   | N                | Y               |              | OK       |       |                   | 139              |                   |   |                                     |
| 21          | M            | TTr            | H             | TO             |       | 37    |              |               |         |             |      |                     |        | 5              | 6       | 2       | 2           |                   |           |               | 8         |                   | Y                | Y               |              | OK       |       |                   | 140              |                   |   |                                     |
| 23          | M            | TTr            | H             | RH             | 6     |       |              |               |         |             |      |                     |        |                |         |         |             |                   |           |               | 1         |                   | Y                | Y               | 45           | OK       |       |                   |                  |                   |   |                                     |
| 24          | M            | T              | H             | R              | 6     |       |              |               |         |             |      |                     |        |                |         |         |             |                   |           |               | 1         |                   | Y                | Y               | 45           | OK       |       |                   |                  |                   |   |                                     |

| Reference Codes |                      |    |              |         |        |                |          |             |
|-----------------|----------------------|----|--------------|---------|--------|----------------|----------|-------------|
| Microclimate    | Plant Material H/M/L |    |              | Density |        | Sprinkler Make |          | Area        |
| H               | High                 | T  | Turf         | H       | High   | R              | Rainbird | S 25 sq ft  |
| M               | Medium               | S  | Shrubs       | M       | Medium | T              | Toro     | M 50 sq ft  |
| L               | Low                  | G  | Ground Cover | L       | Low    | H              | Hunter   | L 100 sq ft |
|                 |                      | M  | Mixed        |         |        | I              | Irritrol |             |
|                 |                      | Tr | Trees        |         |        | O              | Other    |             |

| Soil Type                | Water Source |          |
|--------------------------|--------------|----------|
| Clay                     | Potable      | O        |
| Loam                     | O            | Recycled |
| Sand                     |              |          |
| Turf Information         |              |          |
| Existing Synthetic Turf: |              | N        |
| System Information       |              |          |
| Booster Pump:            |              | N        |
| Pressure Regulator:      |              | N        |

|                                      |
|--------------------------------------|
| <b>Auditor Name: Enrique Zanetti</b> |
| <b>Auditor Name: Chris Jackson</b>   |
| <b>Time In:</b>                      |
| <b>Appointment:</b>                  |





## City of Lakewood

### Bloomfield Park

21420 Pioneer Boulevard  
Lakewood, CA 90716

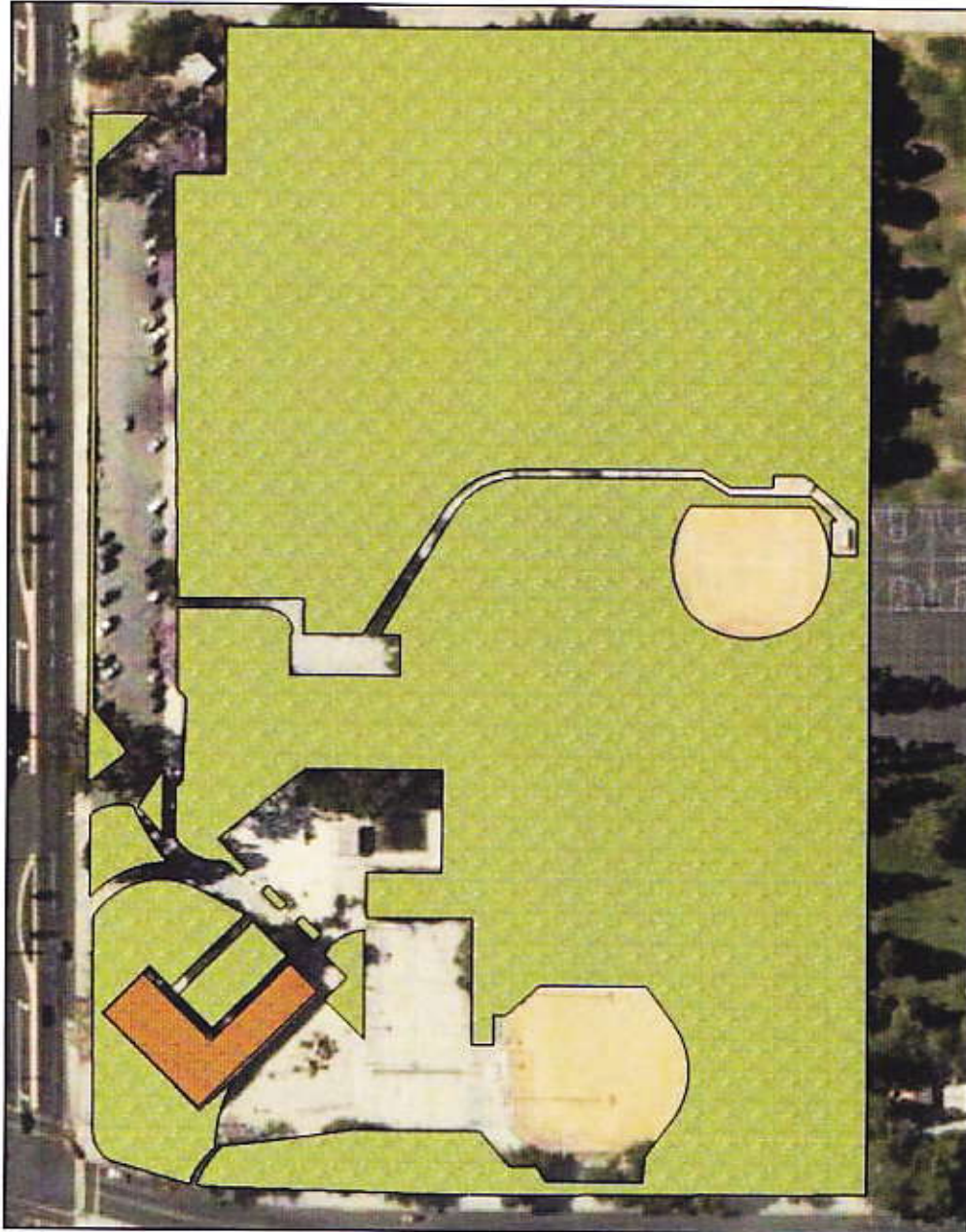
|                                  |                  |
|----------------------------------|------------------|
| <b>Audit Date:</b>               | December 4, 2008 |
| <b>Auditor:</b>                  | Enrique Zanetti  |
| <b>Assistant:</b>                | Chris Jackson    |
| <b>Building Area:</b>            | 7,620 sq ft      |
| <b>Landscape Irrigated Area:</b> | 426,719 sq ft    |
| <b>Total Area:</b>               | 434,339 sq ft    |


# City of Lakewood


## Bloomfield Park

21420 Pioneer Boulevard

Lakewood, CA 90716



 Building Area: 7,620 sq ft

 Landscape Irrigated Area: 426,719 sq ft

## Bloomfield Park

December 4, 2008



This is an example of a low rotor. Of the 152 rotors that we audited, 14% were low which causes pooling around the base of the rotor and poor distribution uniformity.



Over 10% of the sprinklers were tipped. Tipped sprinkler heads cause uneven distribution of water.



Here are two examples of arc misalignment. The arc on these rotor heads should be rotated to water the lawn area instead of the sidewalks.



Here is an example of a blocked rotor of 14 blocked rotors we found. This is not only unhealthy for the tree but, inefficient for the uniformity of water being distributed.



Station 5, was battery operated and overspraying onto a hardscape. We recommend either adjusting the radius of throw or downsizing nozzles.



Of the 11 active stations at Controller I which were irrigating large lawn areas, 8 stations were operating at lower than optimum pressure. Check the control valves or downsize the nozzles.

### Landscape Data - Active Stations By Controller

|                           |  |                   |             |
|---------------------------|--|-------------------|-------------|
| Facility: Bloomfield Park | Address: 21420 Pioneer Blvd. Lakewood, CA, 90716 | Location: See map | Work Order: |
|---------------------------|--|-------------------|-------------|

|   |          |                    |                     |  |
|---|----------|--------------------|---------------------|--|
| Irrigation Controller<br>Make & Model: Rain Master Sentor II (Controller I) | WBIC?: N | Total Stations: 24 | Active Stations: 13 | Area Description: Sport Field, sidewalks & recreation area |
|---|----------|--------------------|---------------------|--|

| Station No. | Microclimate | Plant Material | Plant Density | Sprinkler Type |       |       |              |               |         |             |      | Sprinkler Condition |        |                |         |         |             |                   |           | System Condition |           |                   |                  |                   |                  | Replace Nozzles | Planter Area | Quantity | Notes |                   |            |  |                             |
|-------------|--------------|----------------|---------------|----------------|-------|-------|--------------|---------------|---------|-------------|------|---------------------|--------|----------------|---------|---------|-------------|-------------------|-----------|------------------|-----------|-------------------|------------------|-------------------|------------------|-----------------|--------------|----------|-------|-------------------|------------|--|-----------------------------|
|             |              |                |               | Sprinkler Make | Rotor | Spray | Stream Rotor | Rotary Nozzle | Bubbler | Micro Spray | Drip | Low                 | Tipped | Arc Misaligned | Clogged | Leaking | Broken Head | Non-rotating Head | Overspray | Spray Blocked    | Effective | Head-Head Spacing | Pressure Reading | High/Low Pressure | Broken Irr. Line |                 |              |          |       | Valve Malfunction | Photograph |  |                             |
| 5           | H            | TTr            | H             | HR<br>O        | 16    |       |              |               |         |             |      |                     | 2      | 5              | 1       |         |             |                   |           | 2                |           | Y                 | N                | 30                | L                | 1               |              | 1        |       |                   |            |  |                             |
| 6           | H            | TTr            | H             | HR<br>O        | 15    |       |              |               |         |             |      |                     | 2      | 1              | 1       |         |             |                   |           |                  |           | Y                 | N                | 25                | L                |                 |              | 5        |       |                   |            |  |                             |
| 7           | M            | TTr            | H             | H              | 4     |       |              |               |         |             |      |                     |        | 1              |         |         |             |                   |           |                  |           | Y                 | N                | 45                | L                |                 |              | 8        |       |                   |            |  |                             |
| 9           | H            | S              | M             | T              |       | 17    |              |               |         |             |      |                     |        |                |         |         |             |                   |           |                  |           | N                 | N                |                   | L                |                 |              |          |       |                   |            |  | Many are completely clogged |
| 11          | M            | TTr            | H             | H              | 10    |       |              |               |         |             |      |                     | 2      | 1              | 1       |         |             |                   |           | 2                |           | Y                 | N                | 25                | L                |                 |              |          |       |                   |            |  | 2 heads are not rotating    |
| 12          | H            | TTr            | H             | H              | 14    |       |              |               |         |             |      |                     | 3      | 1              |         |         |             |                   |           |                  |           | Y                 | N                | 30                | L                |                 |              |          |       |                   |            |  |                             |
| 13          | H            | TTr            | H             | HO             | 12    |       |              |               |         |             |      |                     |        |                |         |         |             |                   |           |                  |           | Y                 | N                | 30                | L                |                 |              |          |       |                   |            |  |                             |
| 15          | H            | TTr            | H             | HR<br>O        | 16    |       |              |               |         |             |      |                     |        | 2              | 1       |         |             |                   |           | 3                |           | Y                 | N                | 40                | H                |                 |              | 22       |       |                   |            |  | Misting                     |
| 16          | M            | TTr            | 4             | HR<br>O        | 14    |       |              |               |         |             |      |                     | 4      | 2              |         |         |             |                   |           |                  |           | Y                 | N                | 50                | OK               |                 |              |          |       |                   |            |  |                             |
| 17          | H            | TTr            | H             | HR<br>O        | 14    |       |              |               |         |             |      |                     |        | 1              |         |         |             |                   |           |                  |           | Y                 | N                | 30                | L                |                 |              | 24       |       |                   |            |  |                             |
| 19          | M            | TTr            | H             | R              | 16    |       |              |               |         |             |      |                     |        | 1              |         |         |             |                   |           |                  | 1         | 1                 | Y                | Y                 | 20               | L               |              |          | 28    |                   |            |  |                             |

| Reference Codes |                      |         |                |      |        |   |          |   |           |
|-----------------|----------------------|---------|----------------|------|--------|---|----------|---|-----------|
| Microclimate    | Plant Material H/M/L | Density | Sprinkler Make | Area |        |   |          |   |           |
| H               | High                 | T       | Turf           | H    | High   | R | Rainbird | S | 25 sq ft  |
| M               | Medium               | S       | Shrubs         | M    | Medium | T | Toro     | M | 50 sq ft  |
| L               | Low                  | G       | Ground Cover   | L    | Low    | H | Hunter   | L | 100 sq ft |
|                 |                      | M       | Mixed          |      |        | I | Irritrol |   |           |
|                 |                      | Tr      | Trees          |      |        | O | Other    |   |           |

| Soil Type                | Water Source |
|--------------------------|--------------|
| Clay                     | Potable      |
| Loam                     | Recycled     |
| Sand                     |              |
| Turf Information         |              |
| Existing Synthetic Turf: | N            |
| System Information       |              |
| Booster Pump:            | Y            |
| Pressure Regulator:      | Y            |

|                                      |
|--------------------------------------|
| <b>Auditor Name: Enrique Zanetti</b> |
| <b>Auditor Name: Chris Jackson</b>   |
| <b>Time In:</b>                      |
| <b>Appointment:</b>                  |

### Landscape Data - Active Stations By Controller

| Facility: Bloomfield Park |              |                |               | Address: 21420 Pioneer Blvd. Lakewood, CA, 90716   |       |       |              |               |         |                    |      |                     |        | Location: See map  |         |         |             | Work Order:       |           |               |           |                   |                  |                 |              |          |       |                   |                  |                   |
|---------------------------|--------------|----------------|---------------|--|-------|-------|--------------|---------------|---------|--------------------|------|---------------------|--------|--|---------|---------|-------------|-------------------|-----------|---------------|-----------|-------------------|------------------|-----------------|--------------|----------|-------|-------------------|------------------|-------------------|
| Irrigation Controller     |              |                |               | Make & Model: Rain Master Sentor II (Controller I) |       |       |              | WBIC?: N      |         | Total Stations: 24 |      | Active Stations: 13 |        | Area Description: Sport Field, sidewalks & recreation area |         |         |             |                   |           |               |           |                   |                  |                 |              |          |       |                   |                  |                   |
| Station No.               | Microclimate | Plant Material | Plant Density | Sprinkler Type                                     |       |       |              |               |         |                    |      | Sprinkler Condition |        |  |         |         |             | System Condition  |           |               |           |                   |                  | Replace Nozzles | Planter Area | Quantity | Notes |                   |                  |                   |
|                           |              |                |               | Sprinkler Make                                     | Rotor | Spray | Stream Rotor | Rotary Nozzle | Bubbler | Micro Spray        | Drip | Low                 | Tipped | Arc Misaligned   | Clogged | Leaking | Broken Head | Non-rotating Head | Overspray | Spray Blocked | Effective | Head-Head Spacing | Pressure Reading |                 |              |          |       | High/Low Pressure | Broken Irr. Line | Valve Malfunction |
| 22                        | M            | T Tr           | H             | R  | 20    |       |              |               |         |                    |      |                     |        | 2  |         |         |             |                   | 3         |               | Y         | Y                 | 40               | OK              |              |          | 30    | S<br>M<br>L       |                  |                   |
| 23                        | M            | T Tr           | H             | T  | 1     | 47    | 1            |               |         |                    |      |                     | 8      |  |         |         |             |                   | 1         |               | Y         | N                 |                  | OK              |              |          | 33    | S<br>M<br>L       |                  | Bad Design        |

| Reference Codes |                      |    |              |   |                |   |          |             |
|-----------------|----------------------|----|--------------|---|----------------|---|----------|-------------|
| Microclimate    | Plant Material H/M/L |    | Density      |   | Sprinkler Make |   | Area     |             |
| H               | High                 | T  | Turf         | H | High           | R | Rainbird | S 25 sq ft  |
| M               | Medium               | S  | Shrubs       | M | Medium         | T | Toro     | M 50 sq ft  |
| L               | Low                  | G  | Ground Cover | L | Low            | H | Hunter   | L 100 sq ft |
|                 |                      | M  | Mixed        |   |                | I | Irritrol |             |
|                 |                      | Tr | Trees        |   |                | O | Other    |             |

| Soil Type                | Water Source |
|--------------------------|--------------|
| Clay                     | Potable      |
| Loam                     | O Recycled   |
| Sand                     |              |
| Turf Information         |              |
| Existing Synthetic Turf: | N            |
| System Information       |              |
| Booster Pump:            | Y            |
| Pressure Regulator:      | Y            |

**Auditor Name: Enrique Zanetti**

**Auditor Name: Chris Jackson**

**Time In:**

**Appointment:**







## City of Lakewood

### Biscailuz Park

2601 Dollar Street  
Lakewood, CA 90712

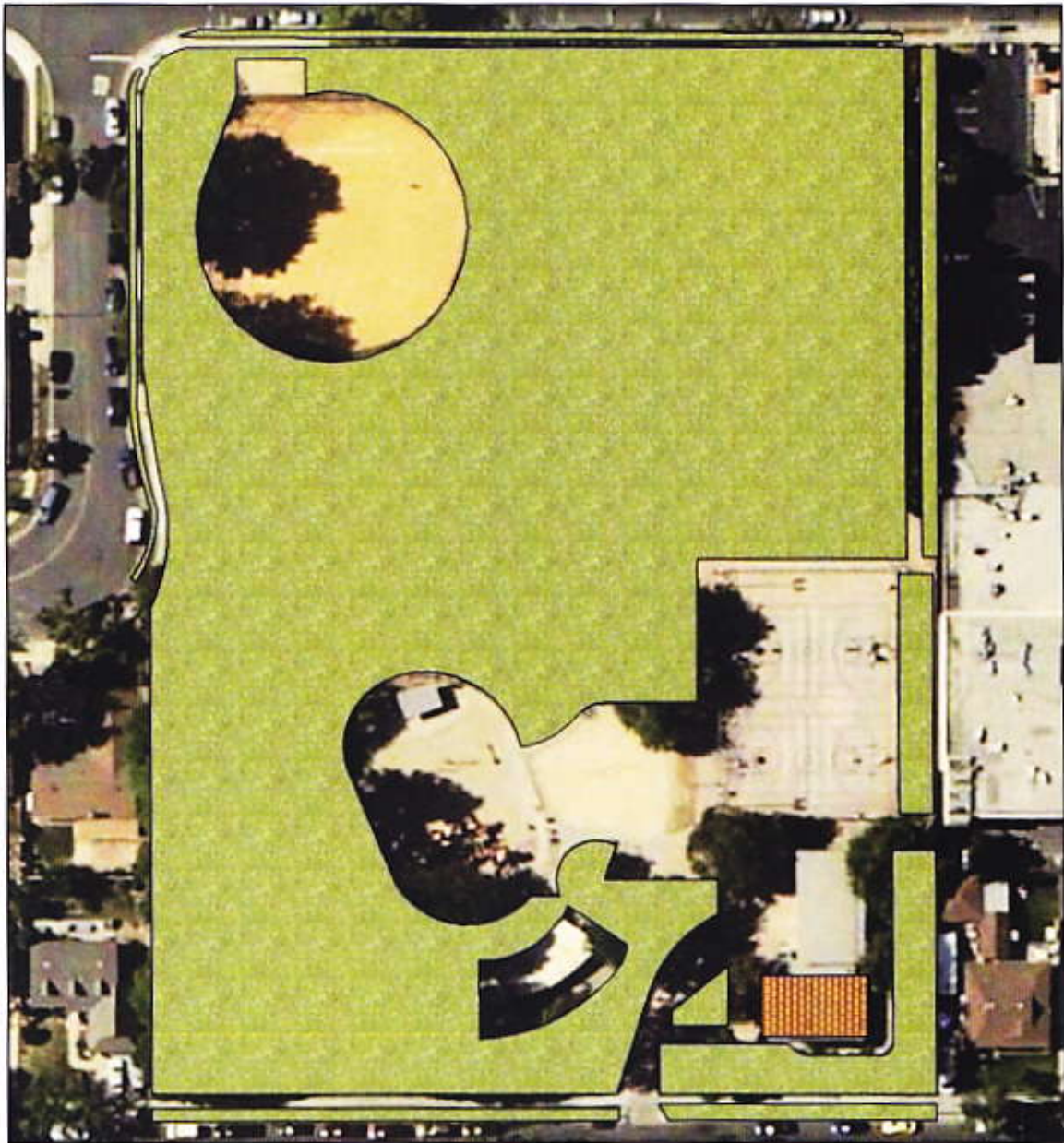
|                                  |                  |
|----------------------------------|------------------|
| <b>Audit Date:</b>               | December 4, 2008 |
| <b>Auditor:</b>                  | Enrique Zanetti  |
| <b>Assistant:</b>                | Chris Jackson    |
| <b>Building Area:</b>            | 1,304 sq ft      |
| <b>Landscape Irrigated Area:</b> | 123,702 sq ft    |
| <b>Total Area:</b>               | 125,006 sq ft    |


# City of Lakewood


## Biscailuz Park

2601 Dollar Street

Lakewood, CA 90712



 Building Area: 1,304 sq ft

 Landscape Irrigated Area: 123,702 sq ft

## Biscailuz Park

December 4, 2008



About 14% of the sprinklers were tipped. Tipped sprinkler heads cause uneven distribution of water.



Here is an example of a rotor with arc misalignment. A total of 34 sprinklers at Biscailuz Park were out of alignment.



Over 25% of the sprinklers at Controller I were found broken. Broken sprinklers should be kept to a minimum with maintenance, these broken sprinklers are creating major water losses.



The above photo shows low sprinkler heads with high water pressure resulting in misting. Misting can be fixed by adding pressure regulators.



This photo shows a low rotor. Low sprinklers produce poor water distribution uniformity and pooling at the base of the sprinkler.



Overspray is often a problem on sidewalks and parkways. We recommend replace the nozzles with strip series nozzle types at stations 4 and 10 Controller I and manual station 5.

## Landscape Data - Active Stations By Controller

| Facility: Biscailuz Park |              |                |               | Address: 2601 Dollar St., Lakewood, Ca.     |       |       |              |               |         |                    |                     |                     |        | Location: See map       |         |         |             | Work Order:       |           |               |           |                   |                  |                 |              |          |       |                   |                  |                   |             |                          |  |                               |
|--------------------------|--------------|----------------|---------------|---|-------|-------|--------------|---------------|---------|--------------------|---------------------|---------------------|--------|-------------------------|---------|---------|-------------|-------------------|-----------|---------------|-----------|-------------------|------------------|-----------------|--------------|----------|-------|-------------------|------------------|-------------------|-------------|--------------------------|--|-------------------------------|
| Irrigation Controller    |              |                |               | Make & Model: Aqua Dial 523A (Controller I) |       |       |              | WBIC?: N      |         | Total Stations: 24 |                     | Active Stations: 19 |        | Area Description: Field |         |         |             |                   |           |               |           |                   |                  |                 |              |          |       |                   |                  |                   |             |                          |  |                               |
| Station No.              | Microclimate | Plant Material | Plant Density | Sprinkler Type                              |       |       |              |               |         |                    | Sprinkler Condition |                     |        |                         |         |         |             | System Condition  |           |               |           |                   |                  | Replace Nozzles | Planter Area | Quantity | Notes |                   |                  |                   |             |                          |  |                               |
|                          |              |                |               | Sprinkler Make                              | Rotor | Spray | Stream Rotor | Rotary Nozzle | Bubbler | Micro Spray        | Drip                | Low                 | Tipped | Arc Misaligned          | Clogged | Leaking | Broken Head | Non-rotating Head | Overspray | Spray Blocked | Effective | Head-Head Spacing | Pressure Reading |                 |              |          |       | High/Low Pressure | Broken Irr. Line | Valve Malfunction | Photograph  |                          |  |                               |
| 1                        | H            | T              | H             | HO  | 3     |       |              |               |         |                    |                     |                     |        |                         |         |         |             | 1                 |           |               | 1         |                   |                  | Y               | Y            | 40       | L     |                   |                  | 47                | S<br>M<br>L |                          |  |                               |
| 2                        | H            | TTr            | H             | HO  | 2     |       |              |               |         |                    |                     |                     |        |                         |         |         |             |                   |           |               |           |                   |                  | Y               | Y            | 35       | L     |                   |                  |                   | S<br>M<br>L |                          |  |                               |
| 3                        | H            | TTr            | H             | HO  |       | 30    |              |               |         |                    | 6                   | 2                   | 2      | 1                       | 1       | 10      |             |                   |           | 9             |           |                   |                  | N               | Y            |          | OK    |                   |                  | 67                | S<br>M<br>L |                          |  |                               |
| 4                        | H            | T              | H             | T   |       | 21    |              |               |         |                    |                     | 15                  |        |                         |         |         |             |                   |           | 21            |           |                   |                  | Y               | Y            |          | OK    |                   |                  | 57                | S<br>M<br>L |                          | ALL SPRAYS ARE OVERSPRAYING                  |                               |
| 5                        | H            | T              | H             | TO  |       | 14    |              |               |         |                    | 11                  |                     |        | 1                       | 1       |         |             |                   |           |               |           |                   |                  | Y               | Y            |          | OK    |                   |                  | 58                | S<br>M<br>L |                          | LOW PRESSURE AT END OF LINE...<br>BAD DESIGN |                               |
| 6                        | H            | T              | H             | TO  |       | 16    |              |               |         |                    | 7                   | 3                   | 3      |                         |         | 2       |             |                   |           |               |           |                   |                  | Y               | Y            |          | H     |                   |                  |                   | S<br>M<br>L |                          | ALL SPRAYS ARE OVERSPRAYING                  |                               |
| 7                        | H            | T              | H             | HO  |       | 14    |              |               |         |                    |                     | 2                   |        |                         | 1       | 12      |             |                   |           |               |           |                   | N                | Y               |              | L        |       |                   | 80               | S<br>M<br>L       |             | 3 SPRINKLERS ARE MISSING |  |                               |
| 8                        | H            | TTr            | H             | HT  | 1     |       | 3            |               |         |                    |                     |                     |        | 1                       |         | 1       | 1           |                   |           | 2             |           |                   |                  | Y               | Y            | 30       | L     |                   |                  |                   | S<br>M<br>L |                          | BAD DESIGN.. MIXING ROTOR TYPES              |                               |
| 9                        | H            | STr            | M             | O   |       | ?     |              |               |         |                    |                     |                     |        |                         |         |         |             |                   |           |               |           |                   |                  |                 |              |          |       |                   |                  |                   |             | S<br>M<br>L              |  | PLANTERS. STATION NOT WORKING |
| 10                       | H            | T              | H             | TO  |       | 42    |              |               |         |                    |                     | 1                   | 2      |                         |         | 28      |             |                   |           | 14            |           |                   |                  | N               | Y            |          | L     |                   |                  | 75                | S<br>M<br>L |                          | ALL SPRAYS ARE OVERSPRAYING                  |                               |
| 12                       | H            | T              | H             | HO  | 5     |       |              |               |         |                    | 1                   | 2                   |        |                         |         |         |             |                   |           | 2             |           |                   |                  | Y               | Y            | 40       | L     |                   |                  | 61                | S<br>M<br>L |                          |  |                               |

| Reference Codes |                      |         |                |   |        |   |          |   |           |
|-----------------|----------------------|---------|----------------|---|--------|---|----------|---|-----------|
| Microclimate    | Plant Material H/M/L | Density | Sprinkler Make |   | Area   |   |          |   |           |
| H               | High                 | T       | Turf           | H | High   | R | Rainbird | S | 25 sq ft  |
| M               | Medium               | S       | Shrubs         | M | Medium | T | Toro     | M | 50 sq ft  |
| L               | Low                  | G       | Ground Cover   | L | Low    | H | Hunter   | L | 100 sq ft |
|                 |                      | M       | Mixed          |   |        | I | Irritrol |   |           |
|                 |                      | Tr      | Trees          |   |        | O | Other    |   |           |

| Soil Type                | Water Source |
|--------------------------|--------------|
| Clay                     | Potable O    |
| Loam O                   | Recycled     |
| Sand                     |              |
| Turf Information         |              |
| Existing Synthetic Turf: | N            |
| System Information       |              |
| Booster Pump:            | N            |
| Pressure Regulator:      | N            |

|                                      |
|--------------------------------------|
| <b>Auditor Name: Enrique Zanetti</b> |
| <b>Auditor Name: Chris Jackson</b>   |
| <b>Time In:</b>                      |
| <b>Appointment:</b>                  |

### Landscape Data - Active Stations By Controller

|                          |   |                   |             |
|--------------------------|---|-------------------|-------------|
| Facility: Biscailuz Park | Address: 2601 Dollar St., Lakewood, Ca. | Location: See map | Work Order: |
|--------------------------|---|-------------------|-------------|

|  |          |                    |                     |                         |
|--|----------|--------------------|---------------------|-------------------------|
| Irrigation Controller<br>Make & Model: Aqua Dial 523A (Controller I) | WBIC?: N | Total Stations: 24 | Active Stations: 19 | Area Description: Field |
|--|----------|--------------------|---------------------|-------------------------|

| Station No. | Microclimate | Plant Material | Plant Density | Sprinkler Type |       |       |              |               |         |             |      | Sprinkler Condition |        |                |         |         |             |                   |           | System Condition |           |                   |                  |                   |                  | Replace Nozzles | Planter Area | Quantity | Notes |                   |            |    |  |  |  |
|-------------|--------------|----------------|---------------|----------------|-------|-------|--------------|---------------|---------|-------------|------|---------------------|--------|----------------|---------|---------|-------------|-------------------|-----------|------------------|-----------|-------------------|------------------|-------------------|------------------|-----------------|--------------|----------|-------|-------------------|------------|----|--|--|--|
|             |              |                |               | Sprinkler Make | Rotor | Spray | Stream Rotor | Rotary Nozzle | Bubbler | Micro Spray | Drip | Low                 | Tipped | Arc Misaligned | Clogged | Leaking | Broken Head | Non-rotating Head | Overspray | Spray Blocked    | Effective | Head-Head Spacing | Pressure Reading | High/Low Pressure | Broken Irr. Line |                 |              |          |       | Valve Malfunction | Photograph |    |  |  |  |
| 13          | H            | T              | H             | TO             |       | 28    |              |               |         |             |      |                     |        | 11             | 2       | 6       | 1           |                   | 1         |                  |           |                   |                  |                   |                  | Y               | Y            |          | H     |                   |            | 51 |  |  |  |
| 15          | H            | TTr            | H             | HO             | 3     |       |              |               |         |             |      |                     |        |                |         | 1       |             | 1                 |           |                  |           |                   |                  |                   |                  | Y               | Y            | 40       | L     |                   |            |    |  |  |  |
| 17          | H            | TTr            | H             | HO             | 8     |       |              |               |         |             |      |                     |        |                |         | 1       |             | 2                 | 1         |                  | 2         |                   |                  |                   |                  | Y               | Y            | 30       | L     |                   |            |    |  |  |  |
| 18          | H            | T              | H             | HO             | 6     |       |              |               |         |             |      |                     |        |                |         | 2       |             | 1                 |           |                  |           |                   |                  |                   |                  | Y               | Y            | 30       | L     |                   |            |    |  |  |  |
| 19          | H            | T              | H             | HO             | 1     |       |              |               |         |             |      |                     |        |                |         |         |             | 1                 |           | 1                |           |                   |                  |                   |                  | Y               | N            | 40       | L     |                   |            |    |  |  |  |
| 20          | H            | TTr            | H             | HO             | 4     |       |              |               |         |             |      |                     |        |                |         | 1       |             | 1                 |           |                  | 2         |                   |                  |                   |                  | Y               | Y            | 40       | L     |                   |            |    |  |  |  |
| 21          | H            | TTr            | H             | HO             | 5     |       |              |               |         |             |      |                     |        |                | 1       | 2       |             |                   |           |                  |           |                   |                  |                   |                  | Y               | Y            | 35       | L     |                   |            |    |  |  |  |
| 22          | H            | TTr            | H             | RO             | 4     |       |              |               |         |             |      |                     |        |                | 1       | 2       |             |                   |           |                  | 1         |                   |                  |                   |                  | Y               | Y            | 35       | L     |                   |            |    |  |  |  |

| Reference Codes |                      |    |              |   |                |   |          |   |           |
|-----------------|----------------------|----|--------------|---|----------------|---|----------|---|-----------|
| Microclimate    | Plant Material H/M/L |    | Density      |   | Sprinkler Make |   | Area     |   |           |
| H               | High                 | T  | Turf         | H | High           | R | Rainbird | S | 25 sq ft  |
| M               | Medium               | S  | Shrubs       | M | Medium         | T | Toro     | M | 50 sq ft  |
| L               | Low                  | G  | Ground Cover | L | Low            | H | Hunter   | L | 100 sq ft |
|                 |                      | M  | Mixed        |   |                | I | Irritrol |   |           |
|                 |                      | Tr | Trees        |   |                | O | Other    |   |           |

| Soil Type                | Water Source |
|--------------------------|--------------|
| Clay                     | Potable O    |
| Loam O                   | Recycled     |
| Sand                     |              |
| Turf Information         |              |
| Existing Synthetic Turf: | N            |
| System Information       |              |
| Booster Pump:            | N            |
| Pressure Regulator:      | N            |

**Auditor Name: Enrique Zanetti**

**Auditor Name: Chris Jackson**

**Time In:**

**Appointment:**

### Landscape Data - Active Stations By Controller

| Facility: Biscailuz Park      |              |                |               | Address: 2601 Dollar St., Lakewood, CA, 90712 |       |       |              |                     |         |             |      |                    |        |                |         | Location: See map       |             |                   |           | Work Order:   |           |                   |                  |                   |                  |                   |            |                 |              |          |       |  |
|-------------------------------|--------------|----------------|---------------|---|-------|-------|--------------|---------------------|---------|-------------|------|--------------------|--------|----------------|---------|-------------------------|-------------|-------------------|-----------|---------------|-----------|-------------------|------------------|-------------------|------------------|-------------------|------------|-----------------|--------------|----------|-------|--|
| Irrigation Controller         |              |                |               | WBIC?: N                                      |       |       |              | Total Stations: 5   |         |             |      | Active Stations: 5 |        |                |         | Area Description: Field |             |                   |           |               |           |                   |                  |                   |                  |                   |            |                 |              |          |       |  |
| Make & Model: Manual Stations |              |                |               | Sprinkler Type                                |       |       |              | Sprinkler Condition |         |             |      |                    |        |                |         | System Condition        |             |                   |           |               |           | Replace Nozzles   |                  | Planter Area      |                  | Quantity          |            | Notes           |              |          |       |  |
| Station No.                   | Microclimate | Plant Material | Plant Density | Sprinkler Make                                | Rotor | Spray | Stream Rotor | Rotary Nozzle       | Bubbler | Micro Spray | Drip | Low                | Tipped | Arc Misaligned | Clogged | Leaking                 | Broken Head | Non-rotating Head | Overspray | Spray Blocked | Effective | Head-Head Spacing | Pressure Reading | High/Low Pressure | Broken Irr. Line | Valve Malfunction | Photograph | Replace Nozzles | Planter Area | Quantity | Notes |  |
| 1                             | M            | TTr            | H             | T   |       | 11    |              |                     |         |             |      |                    | 2      | 3              | 3       | 1                       |             |                   | 2         |               |           | Y                 | Y                |                   | L                |                   |            |                 |              |          |       |  |
| 2                             | H            | S              | H             | TO  |       | 7     |              |                     |         |             |      |                    | 1      | 1              |         |                         |             |                   | 1         | 3             |           | Y                 | Y                |                   | H                |                   |            |                 |              |          |       |  |
| 3                             | H            | TTr            | H             | HTO   | 6     |       |              |                     |         |             |      |                    | 1      |                |         | 1                       |             | 1                 |           |               |           | Y                 | Y                | 35                | L                |                   |            |                 |              |          |       |  |
| 4                             | H            | T              | H             | HO  | 5     |       |              |                     |         |             |      | 1                  | 2      | 5              |         |                         |             |                   | 1         |               |           | Y                 | Y                | 35                | L                |                   |            |                 |              |          |       |  |
| 5                             | M            | S              | L             | O   |       | 24    |              |                     |         |             |      | 1                  | 2      | 2              | 3       |                         |             |                   | 24        | 2             |           | Y                 | Y                |                   | H                |                   |            |                 |              |          |       |  |

| Reference Codes |                |       |              |                |        |   |          |   |           |
|-----------------|----------------|-------|--------------|----------------|--------|---|----------|---|-----------|
| Microclimate    | Plant Material | H/M/L | Density      | Sprinkler Make | Area   |   |          |   |           |
| H               | High           | T     | Turf         | H              | High   | R | Rainbird | S | 25 sq ft  |
| M               | Medium         | S     | Shrubs       | M              | Medium | T | Toro     | M | 50 sq ft  |
| L               | Low            | G     | Ground Cover | L              | Low    | H | Hunter   | L | 100 sq ft |
|                 | M              |       | Mixed        |                |        | I | Irritrol |   |           |
|                 | Tr             |       | Trees        |                |        | O | Other    |   |           |

| Soil Type                | Water Source |
|--------------------------|--------------|
| Clay                     | Potable O    |
| Loam                     | Recycled     |
| Sand                     |              |
| Turf Information         |              |
| Existing Synthetic Turf: | N            |
| System Information       |              |
| Booster Pump:            | N            |
| Pressure Regulator:      | N            |

**Auditor Name: Enrique Zanetti**

**Auditor Name: Chris Jackson**

**Time In:**

**Appointment:**




**City of Lakewood**  
**Candle Verde Park**  
6300 Candle Wood Street  
Lakewood, CA 90713

|                                  |                          |
|----------------------------------|--------------------------|
| <b>Audit Date:</b>               | <b>November 19, 2008</b> |
| <b>Auditor:</b>                  | <b>Kelly Takai</b>       |
| <b>Assistant:</b>                | <b>Kosta Duncan</b>      |
| <b>Landscape Irrigated Area:</b> | <b>87,705 sq ft</b>      |
| <b>Total Area:</b>               | <b>87,705 sq ft</b>      |



**City of Lakewood**  
**Candle Verde Park**  
6300 Candle Wood Street  
Lakewood, CA 90713



 Landscape Irrigated Area: 87,705 sq ft

### Landscape Data - Active Stations By Controller

| Facility: Candle Verde Park      |              |                |               | Address: 6300 Candlewood St., Lakewood, CA 90713 |       |       |              |                    |         |             |                     |                    |        | Location: See map |         |                         |             | Work Order:       |           |               |           |                   |                  |                 |              |          |             |                   |                  |                   |
|----------------------------------|--------------|----------------|---------------|--|-------|-------|--------------|--------------------|---------|-------------|---------------------|--------------------|--------|-------------------|---------|-------------------------|-------------|-------------------|-----------|---------------|-----------|-------------------|------------------|-----------------|--------------|----------|-------------|-------------------|------------------|-------------------|
| Irrigation Controller            |              |                |               | WBIC?: N   |       |       |              | Total Stations: 12 |         |             |                     | Active Stations: 9 |        |                   |         | Area Description: Field |             |                   |           |               |           |                   |                  |                 |              |          |             |                   |                  |                   |
| Make & Model: Rain Master Sentar |              |                |               |  |       |       |              |                    |         |             |                     |                    |        |                   |         |                         |             |                   |           |               |           |                   |                  |                 |              |          |             |                   |                  |                   |
| Station No.                      | Microclimate | Plant Material | Plant Density | Sprinkler Type                                   |       |       |              |                    |         |             | Sprinkler Condition |                    |        |                   |         |                         |             | System Condition  |           |               |           |                   |                  | Replace Nozzles | Planter Area | Quantity | Notes       |                   |                  |                   |
|                                  |              |                |               | Sprinkler Make                                   | Rotor | Spray | Stream Rotor | Rotary Nozzle      | Bubbler | Micro Spray | Drip                | Low                | Tipped | Arc Misaligned    | Clogged | Leaking                 | Broken Head | Non-rotating Head | Overspray | Spray Blocked | Effective | Head-Head Spacing | Pressure Reading |                 |              |          |             | High/Low Pressure | Broken Irr. Line | Valve Malfunction |
| 1                                | H            | T              | H             | H  | 10    |       |              |                    |         |             |                     | 1                  | 4      |                   |         | 1                       |             |                   |           | Y             | Y         |                   | OK               |                 |              | 21       | S<br>M<br>L |                   |                  |                   |
| 2                                | H            | T              | H             | H  | 9     |       |              |                    |         |             |                     | 2                  |        |                   |         |                         |             |                   |           | Y             | Y         |                   | OK               |                 |              | 22       | S<br>M<br>L |                   |                  |                   |
| 4                                | H            | T              | H             | H  | 5     |       |              |                    |         |             |                     |                    |        |                   |         |                         |             |                   |           | Y             | Y         |                   | OK               |                 |              |          | S<br>M<br>L |                   |                  |                   |
| 5                                | H            | T              | H             | H  | 7     |       |              |                    |         |             |                     | 4                  | 1      |                   |         |                         |             |                   |           | Y             | Y         |                   | OK               |                 |              | 24       | S<br>M<br>L |                   |                  |                   |
| 6                                | H            | T              | H             | H  | 8     |       |              |                    |         |             |                     |                    | 1      | 3                 |         |                         |             | 1                 |           | Y             | Y         |                   | OK               |                 |              | 25       | S<br>M<br>L |                   |                  |                   |
| 7                                | H            | T              | H             | H  | 7     |       |              |                    |         |             |                     | 2                  | 3      | 4                 | 1       | 1                       |             |                   |           | Y             | Y         |                   | OK               |                 |              | 27       | S<br>M<br>L |                   |                  |                   |
| 9                                | L            | T Tr           | H             | H  | 4     |       |              |                    |         |             |                     | 4                  |        |                   |         | 1                       | 1           |                   |           | 4             | Y         | Y                 |                  | OK              |              |          |             | S<br>M<br>L       |                  |                   |
| 10                               | M            | T Tr           | H             | H  | 2     |       |              |                    |         |             |                     | 2                  |        |                   |         |                         |             |                   |           | Y             | Y         |                   | OK               |                 |              | 28       | S<br>M<br>L |                   |                  |                   |
| 11                               | H            | T              | H             | HR   | 7     | 5     |              |                    |         |             |                     | 1                  |        |                   | 1       |                         |             |                   |           | Y             | Y         |                   | OK               |                 |              | 32       | S<br>M<br>L |                   |                  |                   |

| Reference Codes |                      |         |                |          |
|-----------------|----------------------|---------|----------------|----------|
| Microclimate    | Plant Material H/M/L | Density | Sprinkler Make | Area     |
| H               | High                 | T       | Turf           | H High   |
| M               | Medium               | S       | Shrubs         | M Medium |
| L               | Low                  | G       | Ground Cover   | L Low    |
|                 | M                    |         | Mixed          |          |
|                 | Tr                   |         | Trees          |          |
|                 |                      |         | I Irritrol     |          |
|                 |                      |         | O Other        |          |

| Soil Type                | Water Source |
|--------------------------|--------------|
| Clay                     | Potable O    |
| Loam O                   | Recycled     |
| Sand                     |              |
| Turf Information         |              |
| Existing Synthetic Turf: | N            |
| System Information       |              |
| Booster Pump:            | N            |
| Pressure Regulator:      | N            |

**Auditor Name: Kelly Takai**

**Auditor Name: Kosta Duncan**

**Time In:**

**Appointment:**

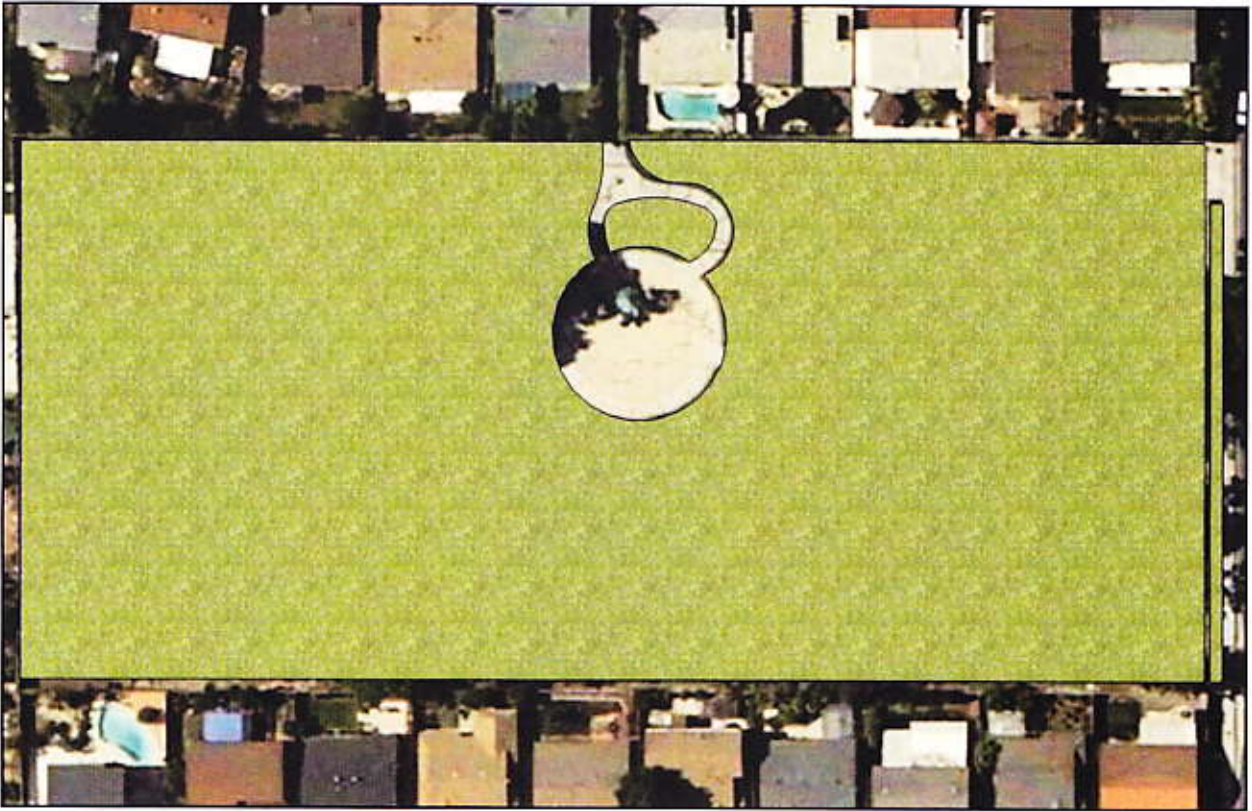



**City of Lakewood**  
**Cherry Cove Park**  
5149 Meadow Wood Avenue  
Lakewood, CA 90712

|                    |                          |
|--------------------|--------------------------|
| <b>Audit Date:</b> | <b>December 19, 2008</b> |
| <b>Auditor:</b>    | <b>Kelly Takai</b>       |
| <b>Assistant:</b>  | <b>Kosta Duncan</b>      |

|                                  |                      |
|----------------------------------|----------------------|
| <b>Landscape Irrigated Area:</b> | <b>119,374 sq ft</b> |
| <b>Total Area:</b>               | <b>119,374 sq ft</b> |

**City of Lakewood**  
**Cherry Cove Park**  
5149 Meadow Wood Avenue  
Lakewood, CA 90712



 Landscape Irrigated Area: 119,374 sq ft



