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# **ENGINEERS REPORT FOR THE CITY OF BURLINGAME STORM DRAINAGE FEE**

*Prepared For:*

**The City of Burlingame  
501 Primrose Road  
Burlingame, California 94010**

*Prepared By:*



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**November 2008**

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# TABLE OF CONTENTS

Engineer’s Statement.....4

SECTION 1 - Introduction and Background ..... 6

    Section 1.1 Basis of Drainage Fee ..... 6

SECTION 2 – Impervious Surface and Factors..... 9

SECTION 3 - Parcel Inventory and Zoning Acreages..... 11

    SECTION 3.1 – Common Area Parcels ..... 12

SECTION 4 – Revenue Requirements & Fee Calculations..... 13

    SECTION 4.1 – Revenue Requirements ..... 13

    SECTION 4.2 – Annuity Calculations..... 14

    SECTION 4.3 – Median Fee..... 15

    SECTION 4.3 – Storm Drainage Fee Calculations ..... 16

SECTION 5 - Appeal Process..... 17

SECTION 6 – Proposition 218 Compliance ..... 18

EXHIBITS ..... 19

    EXHIBIT A:        Zoning Map

    EXHIBIT B:        Impervious Analysis Maps

    EXHIBIT C:        Storm Drain Improvement Report Summary

    EXHIBIT D:        Storm Drain User Fee Bonding Analysis

APPENDICES

    Appendix A:        Resolution of Intent

    Appendix B:        Fee Calculations

        All Parcels List

        Condominium List

    Appendix C:        Certificates

**PRELIMINARY  
ENGINEER'S REPORT  
  
FOR THE  
  
CITY OF BURLINGAME  
STORM DRAINAGE FEE**

AGENCY: CITY OF BURLINGAME

PROJECT: STORM DRAINAGE FEE

TO: CITY COUNCIL OF THE CITY OF BURLINGAME

**ENGINEER'S REPORT  
FOR THE  
CITY OF BURLINGAME  
STORM DRAINAGE FEE**

The provisions of Proposition 218 (Articles XIII C and XIII D of the California Constitution) requires the City to comply with the substantive and procedural requirements set forth in Section 6 of Article XIII D of the California Constitution prior to imposing or increasing a fee or charge upon any parcel of property or upon any person as an incident of property ownership. Article XIII D requires the City to notice the record owner of the parcel upon which the fee or charge is proposed to be imposed. Article XIII D and the Proposition 218 Implementation Act, Government Code Sections 53750 and following, establish certain procedural and substantive requirements but do not set forth all procedures that are necessary to conduct a protest hearing; and the City wishes to adopt certain procedures for the protest hearing and to make them available to the public; and in accordance with the Resolution of Intention, being Resolution No. \_\_\_\_\_, adopted by the City Council of the City of Burlingame, San Mateo County, State of California, in connection with the proceedings for Storm Drainage Fee, a copy of said Resolution attached hereto as Appendix "A".

I, Kenneth C. Taylor, P. E., authorized representative of Willdan Engineering, the appointed Engineer, submit herewith the Engineer's Report for the Storm Drainage Fee consisting of six (6) parts, with exhibits and appendices as follows:

- SECTION 1 Introduction and Background:** Provides general information and background of the existing storm drain system and the basis of the drainage fee and rate structure.
- SECTION 2 Impervious Surface and Factors:** Defines impervious surface and identifies the impervious factors used for each zoning category in the City of Burlingame.
- SECTION 3 Parcel Inventory and Zoning Acreages:** Identifies total area and acreages of the parcels in the City and the impervious area of the City. Identifies the total condominium count within the City.
- SECTION 4 -Revenue Requirements:** Identifies the revenue requirements to design and construct the required storm drain improvements within

the City and estimated fee requirements that will be distributed to the parcels within the City. This section also explains how the storm drainage fee is calculated and lists the median fee for each zoning category.

**SECTION 5 -Appeal Process:** Outlines the appeal process, should a property owner contest the storm drainage fee applied to their property.

**SECTION 6 -Proposition 218 Compliance:** General description of Proposition 218 process.


**APPENDICES**

- A. The Resolution of Intention is marked Appendix “A”, which is attached hereto, referenced, and so incorporated.
- B. The Fee Calculations set forth in Appendix “B”, which is attached hereto, referenced, and so incorporated.
- C. The Certificates are marked as Appendix “C”, which is attached hereto, referenced, and so incorporated.

Dated this 20th day of November, 2008



Respectfully submitted,  
WILLDAN ENGINEERING

  
KENNETH C. TAYLOR, P. E. NO. 56185  
CIVIL ENGINEER  
STORM DRAIN USER FEE  
CITY OF BURLINGAME  
COUNTY OF SAN MATEO  
STATE OF CALIFORNIA

## **SECTION 1 - Introduction and Background**

The City of Burlingame's storm drain system was constructed more than 80 years ago and is deteriorating. The system's capacity is inadequate and the City is subject to flooding, causing property damage, blockage of emergency access due to flooding and sewer infiltration during seasonal storms. A comprehensive assessment of the storm drain system was performed to determine deficiencies and future requirements. The Storm Drain Improvement Report, dated 2008, Summary included in Exhibit C of this report, identifies five major watershed areas with a list of recommended improvements. Staff has estimated that the cost to upgrade the system to alleviate flooding throughout the City is approximately \$39 million. The City does not have current funding sources available and new funding sources are necessary to protect the public health and safety and alleviate flooding.

On May 5, 2008, the City of Burlingame authorized Willdan to prepare the Financial Engineering Impervious Study. The purpose of the study is to determine an equitable means of distributing a storm drain fee to each parcel within the City that is contributing to the storm drain system. Since the impervious area of each parcel is considered an equitable means of determining a parcel's contribution to the storm drain system, the storm drain fee will be based on impervious area of each parcel. The impervious area of each parcel is determined based on the City's current zoning designation shown on the Zoning Map in Appendix A and parcel areas from the assessor's parcel data. Aerial photos were used in performing the analysis to verify impervious area ratios of various selected parcels in addition to sampling of land use designations.

### ***Section 1.1 Basis of Drainage Fee***

Article XIII, Section D of the California Constitution (Proposition 218) Section 6.b of Prop. 218 sets forth the following key requirements for all new, extended, imposed or increased fees and charges:

1. "Revenues derived from the fee or charge shall not exceed the funds required to provide the property-related service."
2. "Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed."
3. "The amount of fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel."
4. "No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Fees or charges based on potential or future use of service are not permitted."

Standby charges, whether characterized as charges or assessments, shall be classified as assessments and shall not be imposed without compliance with“ (the assessment section of this code).

5. “No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services where the service is available to the public at large in substantially the same manner as it is to the property owners.”

### Basis of Fee Rate Structure

Since all properties discharge storm water runoff to the City’s storm drain system, therefore all properties within the City use the storm drain system.

This “cost of service” based approach to rate-setting means that each property owner should pay a rate proportional to its “fair share” of the cost of the system. For the storm drain system, fee rates will show a clear nexus between the amount of the rate charged and each parcel’s contribution to the storm drain system, which is directly proportional to the impervious area of the property.

The annual storm drainage fee is levied upon each parcel of property that discharges storm water runoff into the City’s storm drain system. The fee levied shall be measured by the amount of storm runoff contributed by the parcel to the City’s storm drain system. The amount of contributed storm runoff is directly proportional to the amount of impervious area on the parcel. The impervious area on a parcel shall be specified as a percentage of the total parcel area.

The amount of the storm drainage fee for each individual parcel shall be computed as follows: Parcel square footage shall be multiplied by the percentage of impervious area on the parcel. The resulting number shall be multiplied by the per-square-foot impervious surface rate in order to calculate the dollar fee for the fiscal year. When the impervious area of a parcel is increased or decreased, the annual fee amount shall be adjusted for the fiscal year next succeeding the change in impervious surface.

### Example Fee Calculation:

Given: 6,000 Square Foot Residential Parcel  
60% Impervious Area

$6,000 \text{ sqft} * 0.60 \text{ imperviousness} = 3,600 \text{ sqft impervious area}$

$3,600 \text{ sqft impervious area} * \$0.041918838/\text{sqft impervious area} = \$150.91$

This calculation is rounded down to the nearest whole dollar amount, resulting in a fee of \$150.00.

The fees for condominiums are based on an 85% impervious area of the common area parcel. The fee for each condominium within the condominium complex is based on the percent interest of the common area in accordance with the assessor's tax roll; and if not shown are deemed to be equal ownership percentages.

Example Fee Calculation:

Given: 15,000 Square Foot Condominium Common Parcel  
85% Impervious Area

15,000 sqft. \* 0.85 imperviousness = 12,750 sqft. impervious area

12,750 sqft. impervious area \* \$0.041918838/sqft impervious area =  
\$534.47

This calculation is rounded down to the nearest whole dollar amount, resulting in a fee of \$534.00.

If there are 5 Units and they have an equal interest in the common area, each unit will pay 20 percent of the overall fee for the common parcel.

The analysis assumes that vacant, unimproved parcels are still in their natural states and do not contribute any additional runoff to burden the City's storm drain system. Therefore, the storm drain fee is not applicable to these parcels.



## SECTION 2 – Impervious Surface and Factors

**Definition of Impervious Surface** *The term impervious surface shall have the following meaning: the non-natural state surface of a parcel, viewed and measured in plan, which acts as a barrier that prevents the majority of storm water from infiltrating into the ground below, including but not limited to concrete, asphalt pavement or concrete paver walkways, patios or driveways; playing surfaces such as tennis or basketball courts; pools and pool decks; roof tops, tool sheds, carports and patio covers.*

The impervious area calculations utilized the impervious factors outlined in Section 2 of this study and are based on the City's Zoning Map, provided in Appendix A and the site specific impervious studies utilizing the aerial photo mapping of the City, provided in Appendix B. The City's Geographical Information System (GIS) database containing parcel area data and zoning information was used to calculate the impervious area of each parcel based on lot size and zoning.

There are 17 different zoning designations within the City. The table below lists the various zoning designations and the percent impervious factors determined for each zone. As shown, commercial properties have a higher percent impervious factor than residential properties. Also, as the residential properties over 10,000 square feet increase in size, the percent impervious factors tend to decrease. These trends are consistent with typical hydrologic calculations and were verified by the specific impervious studies performed using the City's aerial photo.

Zoning	Zoning Definition	Estimated % Impervious Area
AA	Anza Area	56%
APN	Anza Point North	31%
APS	Anza Point South	77%
C1	Commercial Retail Trade	90%
C2	Commercial Service Trades	90%
C3	Professional Uses	95%
CR	Commercial Residential	66%
IB	Inner Bayshore	92%
R1	Single Family Dwellings (0-5000)	60%
R1	Single Family Dwellings (5-10,000)	60%
R1	Single Family Dwellings (10-15,000)	Varies (60%-43%)
R1	Single Family Dwellings (>15,000)	Varies (43%-14%)
R2	Duplex Dwellings	70%
R3	Apartments or Multifamily Dwellings	85%
R4	Apartments or Other Specified Uses	85%
RR	Rollins Road	88%
SL	Shoreline	86%
TP	Tidal Plain	0%
TW	Trousdale West	90%
*	Unclassified	28%

### Impervious Values Verified – Mapping and Spot Checks

Utilizing the City's aerial mapping and GIS information, the impervious areas for several representative areas of the City's zoning designations were evaluated. First, boundary lines were drawn to encompass several residential properties with like densities (e.g. 0.5 - 2 units/acre, etc.) and several individual commercial properties from each of the City's zoning categories. In all cases, the limits of the impervious areas (i.e. roof tops and paved surfaces) were outlined and square footage values assigned. The fraction of the impervious areas divided by the overall area represents the imperviousness of that zoning designation.

Impervious values for parks, schools and other City owned parcels were reviewed and the necessary impervious values adjusted. For instance, a park within the zoning designation R-1 may have a general impervious value of 60 percent, when in fact after a review of the aerial mapping the impervious value of the park is 30 percent. The final impervious values are listed along with the fees for each parcel within the city in Appendix C.

## SECTION 3 - Parcel Inventory and Zoning Acreages

The following table summarizes the various zoning categories, the number of parcels in each category, square footage and acreage.

### Parcel Count, Gross Area and Impervious Areas per Zone

Zoning	Zoning Definition	No. of Parcels	Total Gross Area (SF)	Percent Impervious Area	Total Impervious Area (SF)
AA	Anza Area	38	4,952,748	56%	2,776,928
APN	Anza Point North	7	1,403,403	31%	439,964
APS	Anza Point South	15	638,157	77%	493,572
C1	Commercial Retail Trade	259	3,303,080	90%	2,986,739
C2	Commercial Service Trades	145	1,739,528	90%	1,567,343
C3	Professional Uses	2	22,367	95%	21,249
CR	Commercial Residential	14	65,175	65%	42,364
IB	Inner Bayshore	112	4,964,715	92%	4,569,580
R1	Single Family Dwellings	5845	48,434,314	Varies 60%-14%	25,664,364
R2	Duplex Dwellings	379	2,509,299	70%	1,747,594
R3	Apartments or Multifamily Dwellings	634	5,396,861	85%	4,584,604
R4	Apartments or Other Specified Uses	119	1,709,070	85%	1,440,438
RR	Rollins Road	170	8,751,193	88%	7,671,277
SL	Shoreline	25	2,454,758	86%	2,110,349
TP	Tidal Plain (Not Considered)	6	-	0%	0
TW	Trousdale West	30	1,096,777	90%	987,099
*	Unclassified	32	9,117,002	28%	2,535,594
<b>Total</b>		<b>7832</b>	<b>96,558,447</b>		<b>59,639,058</b>

### **SECTION 3.1 – Common Area Parcels**

Common Area Parcels are parcels for which the ownership is shared.

The following is a summary table for the Common Area Parcels within Burlingame. There are a total of 76 Common Area Parcels for which the ownership is shared by 888 property owners.

The drainage fees for Common Area Parcels are based on an 85% impervious area of the Common Area Parcel. The fee for each property owner within the Common Area Parcel is based on the property owner's percent interest of the common area in accordance with the assessor's tax roll.

Land Use Description	Percent Impervious	No. of APN's	No. of Common Area Parcel APN's
Residential Condominiums	85%	839	71
Co-operative Apartments	85%	23	2
Commercial Condominiums	90%	19	1
Hospital	90%	2	1
"C/I Msc."	90%	14	1
<b>Total:</b>		<b>897</b>	<b>76</b>

## **SECTION 4 – Revenue Requirements & Fee Calculations**

### ***SECTION 4.1 – Revenue Requirements***

The drainage fees collected by the City will be used to fund the necessary replacement and upgrades required to the existing storm drain system to minimize flooding, causing property damage, blockage of emergency access due to flooding and sewer infiltration during seasonal storms.

A comprehensive assessment of the storm drain system was performed to determine deficiencies and future requirements. The Storm Drain Improvement Report, dated 2008, Summary included in Exhibit C, identifies five major watershed areas, with a list of recommended improvements. Staff has estimated that the cost to upgrade the system to alleviate flooding throughout the City is approximately \$39 million.

The City intends to design and construct the necessary storm drain improvements over a 30-year period, with a majority of the improvements completed within 10 years. The design and construction of the improvements will be funded through municipal bonds and pay-as-you-go. The annuity requirement is based on the assumption that the user fee will be collected annually over a 30 year period.

**SECTION 4.2 – Annuity Calculations**

The following assumptions used in the analysis are as follows:

Alternative Scenario A – Three Bond Issuances (30 Year Maturity)

Total CIP Funded	\$42,009,977
Bond Financing	\$30,275,000
Pay as you Go	\$11,734,977

Issue Dates: July 1, 2009, July 1, 2012, July 1, 2015

Maturity Date: July 1, 2039  
Interest Rates: A+ Rating (6.5%)  
Costs of Issuance: \$250,000, \$200,000, \$150,000  
Debt Service Reserve Fund Investment Rate: 4.00%  
Underwriter's Discount: 2.00%  
Bond Insurance: None  
Capitalized Interest: None

Annual Revenue Requirement: \$2,499,902

Rounding up, the Annual Revenue Requirement is \$2,500,000.

The financial analysis to issue three separate bonds is included in Exhibit D

### **SECTION 4.3 – Median Fee**

In order to determine the fee for each parcel within the City of Burlingame, the total impervious area within the City was estimated based on the zoning and lot size. The storm drain annuity of \$2.5 Million divided by the total impervious area of the City, 59,639,058 square feet (sqft.) equates to \$0.041918838 per sqft. of impervious area.

The following table summarizes the Median Fee for each land use.

#### **Median Fee for Each Land Use**

<b>Zoning</b>	<b>No. of Parcels</b>	<b>Median Fee Per Zone</b>
AA	38	\$1,468
APN	7	\$643
APS	15	\$1,434
C1	259	\$283
C2	145	\$250
C3	2	\$445
CR	14	\$116
IB	112	\$1,254
R1 (0-5,000 SF)	619	\$121
R1 (5-10,000 SF)	4,498	\$150
R1 (10-15,000 SF)	521	\$256
R1 (>15,000 SF)	207	\$285
R2	379	\$168
R3	634	\$224
R4	119	\$611
RR	170	\$1,252
SL	25	\$2,060
TP	6	N/A
TW	30	\$908
*	32	\$874
<b>Total</b>	<b>7832</b>	

### **SECTION 4.3 – Storm Drainage Fee Calculations**

The amount of the storm drainage fee for each individual parcel shall be computed as follows: Parcel square footage shall be multiplied by the percentage of impervious surface on the parcel. The resulting number shall be multiplied by \$0.041918838/sqft., which shall be the per square foot impervious surface rate in order to calculate the dollar fee for the fiscal year. For example, a 6000 square foot parcel that is 60% covered by impervious surface, equates to  $6,000\text{sqft.} \times 60\% = 3,600$  sqft. of impervious area. Therefore the annual fee is equal to  $3,600\text{sqft} \times \$0.041918838/\text{sqft.} = \$150.91$ . This calculation is rounded down to the nearest whole dollar amount, resulting in a fee of \$150.00. When the impervious surface of a parcel is increased or decreased, the annual fee amount shall be adjusted for the fiscal year next succeeding the change in impervious surface. .

The annual fee for each parcel within the City of Burlingame is included in Appendix C.



## **SECTION 5 - Appeal Process**

The impervious factors used to determine the fee for each parcel is based on standard engineering practices. These impervious factors used are based on statistical averages for typical developments at various densities of development, to determine the percent impervious area for a given development type. Therefore, the actual imperviousness of a particular parcel within the City may differ slightly from the standard impervious factor used.

Since it is beyond the scope of this project to field verify the imperviousness of each individual parcel, a process is developed for individual property owners to appeal the impervious factor used in the event there are changes made to the property or if the property owner contests that the applied storm drainage fee for a given parcel is using incorrect impervious factors.

The process to appeal the impervious factor of a parcel shall be per adopted City Ordinance.

## **SECTION 6 – Proposition 218 Compliance**

The fees outlined in this report meet the definition of “property-related fee and charges” included in Proposition 218. In order to levy said charges, the City must notify all impacted property owners of the proposed charge no less than 45 days before holding a public hearing to consider the charges. At the hearing, the City must hear all protests to the charge. Should a majority of the notified property owners submit written protests (either at or before the public hearing) against the proposed fee, the City cannot proceed with levying it.