

October 6, 2004

**Honorable Chairman and Members  
of the Hermosa Beach City Council**

**Regular Meeting of  
October 12, 2004**

SUBJECT: CONSIDERATION OF MEASURES TO ACHIEVE COMPLIANCE WITH AB 939  
WASTE DIVERSION MANDATE

**Recommendation:**

That the City Council:

1. Authorize staff to begin the process for joining the Los Angeles Area Regional Agency for AB 939 diversion and disposal reporting purposes.
2. Adopt the attached construction debris recycling resolution to divert debris to recycling facilities instead of landfill disposal.
3. Adopt the attached resolution to establish an “Automated Recycle Toters for Commercial Businesses” program to enhance recycling by businesses.
4. Adopt the attached resolution establishing a “5% Commercial Trash to Transformation Facility ” program to increase diversion from the commercial and industrial sector.

**Background**

The California Integrated Waste Management Act of 1989 (AB 939) mandated a state program requiring that each local jurisdiction prepare, adopt and implement a Source Reduction and Recycling Element in order to divert 50 percent of its solid waste from local landfills. For several years, the City has been working with Eugene Tseng & Associates on various measures to achieve compliance with the mandatory 50% diversion rate.

The City of Hermosa Beach achieved a high of 47% diversion rate in 2001, but the diversion rate for 2002 fell to 37% due to a huge increase in disposal, mostly from increased construction and increased economic growth. In 2001, staff was convinced that implementation of the new 33 gallon toter program would enable the City to achieve the 50% diversion goal, however, the increased volume of construction debris has offset the City’s other diversion efforts. Subsequently, on June 10<sup>th</sup> 2004, staff met with representatives of the California Waste Management Board to discuss methods to achieve diversion goals. The Board followed up with a 30 day Notice of Intent to Issue a Compliance Order to the City regarding implementation of its Source Reduction and Recycling Element and staff developed the implementation measures outlined below as the City’s response to the notice.

In order to achieve the 50-percent state mandate and avoid the possibility of daily fines, staff is recommending consideration of four measures:

1. Affiliation with the Los Angeles Area Regional Agency to provide for consolidated AB 939 diversion and disposal reporting.
2. Introduction of a construction debris diversion policy to divert debris to recycling facilities instead of landfill disposal.
3. Introduction of an “Automated Recycle Toters for Commercial Businesses” program to enhance recycling by businesses.

4. Introduction of a “5% Commercial Trash to Transformation Facility ” program to increase diversion from the commercial and industrial sector

## **Analysis**

### **1. Los Angeles Regional Agency (LARA) – Consolidated Waste Diversion Reporting**

Because there are other cities in the area besides Hermosa Beach which have not yet achieved the required 50 percent diversion rate, a number of cities have joined together to form a combined Regional Agency for satisfying the requirements of AB 939. In January 2002, the City of Los Angeles took initial steps toward the formation of a Los Angeles Regional Agency (LARA) for AB 939 diversion and disposal reporting purposes. All of the 88 cities in Los Angeles County were invited to attend meetings and consider joining LARA. (In Northern California, cities and counties have already banded together to form a total of 22 regional agencies.) Initially, 13 other cities responded to LA’s invitation and the Los Angeles Regional Agency (LARA) was formed with a total of 14 cities. LARA held its first quarterly meeting in March 2004.

The purpose of forming a Regional Agency is to report AB 939 diversion and disposal as one entity rather than by individual jurisdictions. Therefore, instead of 40 cities with 40 different annual reports and diversion rates, there is one Regional Agency with one annual report and one diversion rate. This simplifies the annual AB 939 reporting process by averaging the diversion among participating jurisdictions. This is helpful for cities such as Hermosa Beach that have not reached 50 percent. (The City of Los Angeles submitted a year 2000 Base Year Study to the California Integrated Waste Management Board (CIWMB), reporting a diversion rate of 59 percent.)

The mechanism used to join LARA is a Joint Powers Agreement (JPA). The JPA gives LARA the legal authority to put together the diversion information for all member cities and submit a joint annual report each year.

#### **Advantages of joining LARA:**

- A Regional Agency has more influence at the State level than any single jurisdiction, and better negotiating power.
- CIWMB staff has stated that it is more efficient to serve cities collectively rather than attend individual cities’ meetings.
- LARA allows cities to share costs and conduct new “regional level” base year studies, if required by proposed legislation.
- Small cities will not be as affected by fluctuations in the Disposal Reporting System (DRS). It reduces “bean counting” and concern over whether the numbers will add up to a 50 percent diversion or not.
- The cities can voluntarily withdraw from LARA by filing a 180-day written notice of intent to withdraw.

#### **Effect on Hermosa Beach:**

- The City's diversion rate will be the same as LARA, which is currently estimated at 52%+ percent for 2002 (compared to the City's 37 percent).
- The City will no longer submit an individualized annual report. LARA will submit an annual report on behalf of all the members. This will reduce the time and expense of the City for this task in future years.

- The City's diversion rate will not fluctuate as much as before. For example, any large construction project in the City or significant misreporting of neighboring cities activities shifted the City's reported disposal tonnage and therefore diversion rate significantly.
- Each city will still be responsible for implementing programs outlined in its CIWMB-approved Source Reduction and Recycling Element (SRRE). Joining the Agency does not mean a City can reduce attention to its recycling programs.
- The City will still be responsible for managing its own solid waste and recycling hauling contracts and programs.
- In case of new laws or mandates, the City will be in a stronger position to meet them and implement needed programs.
- Fluctuations in disposal tonnages and/or improper allocation of disposal tonnage to the City can significantly impact the overall diversion rate year by year; and by joining a regional agency, the disposal fluctuations have minimal impact on the overall regional diversion rate.

Cost:

- There is a fee of \$.15 per ton based on each city's disposal tonnage. Thus, for 2002, Hermosa Beach's annual cost would have been  $\$0.15 \times 22,944$  or \$3,441. The Agency will provide members annual financial statements and full accounting.

2. Construction Debris Waste Diversion

Since 1998, the City has been encouraging both public and private demolition and construction projects to achieve a minimum of 50% diversion through waste reduction, reuse, and recycling when reasonably feasible. The new mandatory requirement applies to construction projects with a valuation greater than \$100,000.

To implement the construction waste diversion requirement, the Department of Public Works has previously collected weight tickets as documentation of waste disposal facilities and recycling diversion facilities destination as proof of disposal and diversion. The City has also provided resource guides containing listings of construction and demolition waste processors and service providers. However, more explicit policies and procedures are needed to better document the effectiveness of these recycling requirements so that the City can demonstrate progress toward achieving the mandated state diversion goal of 50%.

In order to do this, staff recommends adoption of the attached resolution for “Mandatory Reduction and Recycling of Construction and Demolition Waste”, which includes a recycling plan submittal requirement prior to construction/demolition activities commencing. This includes a recycling reporting form indicating recycling and disposal of demolition after the completion of the project.

3. Automated Recycle Toters for Commercial Businesses

An “Automated Recycle Toters for Commercial Business” program has been recommended. On average each business will have two 74-gallon recycle toters delivered upon implementation of the program. Businesses will source separate paper, cans, bottles, and flattened cardboard and place these materials into the toters for collection by the hauler.

An estimated 900 tons will be diverted each year. The estimated cost increase to the commercial customers’ rate is approximately 6.7%. The additional diversion tonnage costs are approximately \$76 per ton diverted.

4. 5% Commercial Trash to Transformation Facility

A “5% Commercial Trash to Transformation Facility” program has also been recommended for implementation. Approximately 1,719 tons per year of commercial trash will be sent to the Long Beach Waste-to-Energy Facility (SERRF) for incineration. This will result in all 100% of the 1,719 tons being credited as diversion to the City of Hermosa Beach., and represents approximately another 5% additional increase in the City’s overall diversion rate.

The estimated cost increase to the commercial customers’ rate is approximately 5.1%. The additional diversion tonnage from this program costs are approximately \$30 per ton diverted.

**Fiscal Impact:**

If staff recommendations are approved, the City will begin the process of joining the Los Angeles Area Regional Agency. Additional funds in the amount of \$3,441 for FY 04-05 will be appropriated in the Solid Waste budget to fund the City's consulting expenses related to joining and working with LARA. All other costs will be funded through fees attached to commercial recycling.

**Conclusions:**

If the staff recommendation is approved, the City will begin the process of joining the Los Angeles Area Regional Agency. After joining the Regional Agency, the City's reported diversion will be commingled with LARA’s to help achieve diversion rates. The City will also continue to implement other programs in its approved Source Reduction and Recycling Element. In addition, adoption of the construction debris diversion and commercial toter programs will facilitate achievement of diversion goals. These steps will address compliance concerns and demonstrate the City’s good faith effort toward program implementation. Staff will present them to the Board at their November 3, 2004 meeting.

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Sol Blumenfeld, Director  
Community Development

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Viki Copeland, Director  
Finance Department

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Rick Morgan, Director  
Public Works Department

Concur:

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Stephen R. Burrell,  
City Manager

Attachments:

1. Resolutions
2. Exhibit A
3. Compliance Letter

**RESOLUTION 04-**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HERMOSA  
BEACH, APPROVING REDUCTION AND RECYCLING OF  
CONSTRUCTION AND DEMOLITION WASTE**

The City Council of the City of Hermosa Beach does hereby resolve as follows:

Section 1. The State of California has responded to the pressing need to divert materials from landfills in order to preserve decreasing landfill capacity and diminishing natural resources. As a result the California Integrated Waste Management Act (Assembly Bill 939) was passed in 1989. The bill mandates a required waste diversion of 50 percent. The City of Hermosa Beach is committed to achieve and maintain that State mandated 50 percent diversion goal.

Section 2. To ensure that solid waste generated in the City of Hermosa Beach is reduced, reused or recycled, the City Council hereby adopts a resolution for the Reduction and Recycling of Construction and Demolition Waste, with guidelines for implementation attached hereto as Exhibit “A”, and directs staff to implement it.

**PASSED, APPROVED, and ADOPTED** this 12<sup>th</sup> day of October, 2004

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PRESIDENT of the City Council and MAYOR of the City of Hermosa Beach, California

ATTEST:

APPROVED AS TO FORM:

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CITY CLERK

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CITY ATTORNEY

## RESOLUTION 04-

### **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HERMOSA BEACH, APPROVING AN AUTOMATED COMMERCIAL RECYCLING TOTER PROGRAM AND 5% COMMERCIAL TRASH TO TRANSFORMATION PROGRAM**

The City Council of the City of Hermosa Beach does hereby resolve as follows:

Section 1. The State of California has responded to the pressing need to divert materials from landfills in order to preserve decreasing landfill capacity and diminishing natural resources. As a result the California Integrated Waste Management Act (Assembly Bill 939) was passed in 1989. The bill mandates a required waste diversion of 50 percent. The City of Hermosa Beach is committed to achieve and maintain the State mandated 50 percent diversion goal.

Section 2. To ensure that the City meets its solid waste diversion goals, the City Council must initiate additional waste diversion measures such as an automated commercial recycling toters program and 5% commercial trash to transformation program.

Section 3. Based on the testimony considered at the City Council hearing on October 12 2004, the City Council makes the following findings:

1. The commercial recycling totter program will require commercial businesses to source separate papers, cans, bottles and flattened cardboard for collection and an estimated 900 tons of solid waste will be diverted per year in this manner
2. The 5% commercial trash to transformation program will require that the waste hauler send commercial trash to the Long Beach Waste to Energy Facility (SERRF) for incineration and an estimated 1,719 tons of solid waste will be credited as diversion through this effort

Section 5. Based on the foregoing the City Council hereby adopts an automated commercial recycling totter program and 5% commercial trash to transformation program and directs staff to implement them.

**PASSED, APPROVED, and ADOPTED** this 12<sup>th</sup> day of October, 2004

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PRESIDENT of the City Council and MAYOR of the City of Hermosa Beach, California

ATTEST:

APPROVED AS TO FORM:

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CITY CLERK

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CITY ATTORNEY

## **EXHIBIT A:**

### **CITY OF HERMOSA BEACH RESOLUTION FOR REDUCTION AND RECYCLING OF CONSTRUCTION AND DEMOLITION WASTE**

#### **I. General/Background**

The State of California has responded to the pressing need to divert materials from landfills in order to preserve decreasing landfill capacity and diminishing natural resources. As a result the California Integrated Waste Management Act [Assembly Bill 939] was passed in 1989. The bill mandates that by January 1, 1995, each California city and county must divert 25 percent of all solid waste from landfill or transformation facilities through source reduction, recycling, and composting activities. By January 1, 2000, the required waste diversion is 50 percent. The City of Hermosa Beach is committed to achieve and maintain the State mandated 50 percent diversion goal beyond the year 2000.

To ensure that solid waste generated in the City of Hermosa Beach is reduced, reused or recycled, municipal and private construction projects over \$100,000 in value involving construction, remodeling or demolition, must submit a "Construction and Demolition Waste Reduction and Recycling Plan" to the Community Development Department (private projects) and the Public Works Department (municipal projects) for review and approval with the permit application.

Applicant/Contractors will be expected to follow the plan and document results during construction. "Construction and Demolition Waste Reduction and Recycling Report" form will be submitted at the end of the project to the for review of compliance with the plan.

After the Solid Waste Management and Recycling Plan has been reviewed by the Public Works staff, the plan will either be returned in one of the following four (4) status conditions:

- "Approved"
- "Further Explanations Needed." The Public Works staff will return plan to contractor with questions about applicant's plan. Applicant must resubmit plan with each of the City's questions answered thoroughly.
- "Denied" . -- This will stop the approval for a permit.
- "Exempted -- Due to Infeasibility"

#### **II. Definitions**

- a. "Applicant" means any individual, contractor, firm, limited liability company, association, partnership, political subdivision, government agency, municipality, industry, public or private corporation, or any other entity whatsoever who applies to the City of Hermosa Beach for the applicable permits to undertake any construction, demolition, or renovation project within the City of Hermosa Beach.
- b. "Construction" means the building of any facility or structure or any portion thereof including any tenant improvements to an existing facility or structure.
- c. "Construction and Demolition Debris" means used or discarded materials removed from premises during construction or renovation of a structure resulting from construction, remodeling, repair, or demolition operations on any pavement, house, commercial building, or other structure.
- d. "Conversion Rate" means the rate set forth in the standardized Conversion Rate Table approved by the City pursuant to this Article for use in estimating the volume or weight of materials identified in a Construction and Demolition Waste Reduction and Recycling Plan.
- e. "Covered Project" shall have the meaning set forth in Section III of this Article.

- f. “Demolition” means the decimating, razing, ruining, tearing down or wrecking of any facility, structure, pavement or building, whether in whole or in part, whether interior or exterior.
- g. “Divert” means to use material for any purpose other than disposal in a landfill. Diversion credit is given for source reduction (waste reduction), recycling, and composting.
- h. “Diversion Requirement” means the diversion of at least fifty (50) percent of the total Construction and Demolition Debris generated by a Project via reduction (source reduction), reuse or recycling, unless the Applicant has been granted an Infeasibility Exemption, in which case the Diversion Requirement shall be the maximum feasible diversion rate established by the City of Hermosa Beach.
- i. “Noncovered Project” shall have the meaning set forth in Section III of this Article.
- j. “Performance Security” means any performance bond, surety bond, money order, letter of credit, or certificate of deposit submitted to the City.
- k. “Project” means any activity which requires an application for a building or demolition permit or any similar permit from the City of Hermosa Beach.
- l. “Recycling” means the process of collecting, sorting, cleansing, treating, and reconstituting materials that would otherwise become solid waste, and returning them to the economic mainstream in the form of raw material for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace.
- m. “Renovation” means any change, addition, or modification in an existing structure.
- n. “Reuse” means further or repeated use of Construction or Demolition Debris. An example is the reuse of crushed concrete as road base or as aggregate on the construction site.
- o. “Salvage” means the controlled removal of Construction or Demolition Debris from a permitted building or demolition site for the purpose of recycling, reuse, or storage for later recycling or reuse.
- p. “Construction and Demolition Waste Management Plan” means a completed form, approved by the City of Hermosa Beach for the purpose of compliance with this Article, submitted by the Applicant/Contractor for any Covered or Noncovered Project that indicates the estimated diversion that the Applicant/Contractor anticipates in diverting from disposal.
- q. “Construction and Demolition Waste Management Report” means a completed form, approved by the City of Hermosa Beach for the purpose of compliance with this Article, submitted by the Applicant/Contractor for any Covered or Noncovered Project that documents the disposal and diversion tonnages and destinations.

### **III. Covered and Non-Covered Projects**

- a. Covered Projects: All construction, demolition, and renovation projects within the City that is where the total costs is greater than or equal to \$100,000. “Covered Projects” shall comply with this Article.
- b. Noncovered Projects: Applicants for construction, demolition, and renovation projects within the City whose total costs are less than \$100,000. “Noncovered Projects” shall be encouraged to divert at least fifty (50) percent of all project-related construction and demolition debris.
- c. City-Sponsored Projects: All City-sponsored construction, demolition, and renovation Projects, regardless of cost shall be considered “Covered Projects” for the purposes of this Article and shall submit a Construction and Demolition Waste Reduction and Recycling Plan to the WMP Compliance Official prior to beginning any construction or demolition activities and shall be subject to all applicable provisions of Article.
- d. Compliance as a Condition of Approval: Compliance with the provisions of this Article shall be listed as a condition of approval on any building or demolition permit issued for a Covered Project.

### **IV. Infeasibility Exemption**



- a. Application: If an Applicant for a Covered Project experiences unique circumstances that the Applicant believes make it infeasible to comply with the Diversion Requirement, the Applicant may apply for an exemption at the time that he or she submits the Construction and Demolition Waste Reduction and Recycling Plan. The Applicant shall indicate on the Construction and Demolition Waste Reduction and Recycling Plan the maximum rate of diversion he or she believes is feasible for each material and the specific circumstances that he or she believes make it infeasible to comply with the Diversion Requirement.
- b. The Public Works Department shall review the information supplied by the Applicant and may meet with the Applicant to discuss possible ways of meeting the Diversion Requirement. Based on the information supplied by the Applicant, the City shall determine whether it is possible for the Applicant to meet the Diversion Requirement.
- c. When the Public Works Department or Community Development Department determine that it is infeasible for the Applicant to meet the Diversion Requirement due to unique circumstances, he or she shall determine the maximum feasible diversion rate for each material and shall indicate this rate on the Construction and Demolition Waste Reduction and Recycling Plan submitted by the Applicant. The City shall return a copy of the Construction and Demolition Waste Reduction and Recycling Plan to the Applicant marked “Approved for Infeasible Exemption” and shall notify the permit issuing entity that the Construction and Demolition Waste Reduction and Recycling Plan has been approved.
- d. Denial of Exemption: The City shall inform the applicant in writing if it determines that it is possible to meet the Diversion Requirement. The applicant shall have 30 days to resubmit a Construction and Demolition Waste Reduction and Recycling Plan. If the applicant fails to resubmit the Construction and Demolition Waste Reduction and Recycling Plan, or if the resubmitted Construction and Demolition Waste Reduction and Recycling Plan does not comply with the requirements of the plan, the City shall deny the Construction and Demolition Waste Reduction and Recycling Plan.

## **V. Diversion Measurement**

The methodology used to calculate diversion is based on the Title 14, California Code of Regulations, Article 6.1 Solid Waste Generation Study, Section 18722 et seq, and is consistent with CIWMB measurement protocols. The following equation defines the “Generation-Based Diversion Quantification Methodology”:

$$\text{Generation} = \text{Disposal} + \text{Diversion}$$

$$\text{Diversion Rate (\%)} = \frac{\text{Diversion Tons}}{\text{Generation Tons}}$$

## **General Directions for Completing the City of Hermosa Beach Construction and Demolition Waste Reduction and Recycling Plan / Report Forms**

### **Prior to Commencing Work**

To assist you in completing your Construction and Demolition Waste Reduction and Recycling Plan, please contact the City of Hermosa Beach, Public Works Department at 310-318-0213 or Community Development Department at 310-318-0235. The following materials are available:

- “Construction and Demolition Waste Reduction and Recycling Plan” Form
- “Construction and Demolition Waste Reduction and Recycling Report” Form
- California Integrated Waste Management Board, Technical Assistance Literature regarding construction and demolition waste reduction and recycling

- City of Hermosa Beach Construction and Demolition Waste Reduction and Recycling Resource Guide

Applicant must fill out the Construction and Demolition Waste Reduction and Recycling Plan and fax or mail to the City :

Public Works Department (Municipal Project)	Community Development Department (Private Project)
1315 Valley Drive	1315 Valley Drive
Hermosa Beach, CA 90254-3885	Hermosa Beach, CA 90254-3885
Fax: 310-937-5015	Fax: 310-318-0235

For private and municipal projects, the Permittee/Contractor will be expected to follow the plan and document results during construction. At the completion of activities, Applicant/Contractor must submit the Construction and Demolition Waste Reduction and Recycling Report form to the Public Works Department or the Community Development Department for approval prior to final project approval.

## CONSTRUCTION AND DEMOLITION WASTE REDUCTION AND RECYCLING PLAN

The City of Hermosa Beach is requesting that all applicants prepare a waste management and recycling plan by completing the following form for construction and demolition materials produced as a result of work performed in the City of Hermosa Beach. The City requires that contractors minimize the generation of waste, and recycle materials when there is a viable recycling company available. The City of Hermosa Beach staff will provide assistance to applicants in developing and implementing the waste management and recycling plan. If you have any questions regarding the form or recycling and disposal, please call 310-318-0213 (Municipal project) or 310-318-0235 (private project).

Owner Name: \_\_\_\_\_ Date: \_\_\_\_\_

Property Address: \_\_\_\_\_

\_\_\_\_\_

Owner Telephone: \_\_\_\_\_

Contractor Name: \_\_\_\_\_

Contractor Contact: \_\_\_\_\_ Contractor Telephone: \_\_\_\_\_

Description of Project: \_\_\_\_\_

\_\_\_\_\_

Approximate Dollar Value of Construction / Demolition: \_\_\_\_\_

Approximate Square Footage of Project: \_\_\_\_\_

Demolition Dates: \_\_\_\_\_ Construction Dates: \_\_\_\_\_

Explanation if Petitioning for Waiver Due to Infeasibility:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Please fill out the following form for submittal. The form will help to identify the types of materials, estimated quantities of materials and how the waste material will be reduced, recycled or disposed. Estimate can be in calculated in tons or cubic yards.

MATERIALS	ESTIMATE OF DISPOSAL		ESTIMATE OF DIVERSION		HOW MATERIALS IS DIVERTED
	Tons	Cubic Yards	Tons	Cubic Yards	
Concrete					
Asphalt					
Dirt					
Wood					
Metals					
Soil					
Others (describe)					
Total Tons or Yards	X=		Y=		
ESTIMATED DIVERSION RATE (Y / (X+Y) =					

**FOR CITY USE ONLY**

**Approval Status:**

- ☐ Approved  
☐ Further explanation needed, see attached  
☐ Denied  
☐ Exempted Due to Infeasibility

Reviewed by: \_\_\_\_\_

Date: \_\_\_\_\_

# CONSTRUCTION AND DEMOLITION WASTE RECYCLING AND DISPOSAL REPORT FORM

Owner Name: \_\_\_\_\_ Date: \_\_\_\_\_

Property Address: \_\_\_\_\_  
\_\_\_\_\_

Owner Telephone: \_\_\_\_\_

Contractor Name: \_\_\_\_\_

Contractor Contact: \_\_\_\_\_ Contractor Telephone: \_\_\_\_\_

Description of Project: \_\_\_\_\_  
\_\_\_\_\_

Approximate Dollar Value of Construction / Demolition: \_\_\_\_\_

Approximate Square Footage of Project: \_\_\_\_\_

Demolition Schedule: \_\_\_\_\_

Construction Schedule: \_\_\_\_\_

Name of Hauler(s): \_\_\_\_\_ Telephone: \_\_\_\_\_

Please check waste reduction activities that are practiced at this project site:

<input type="checkbox"/> Use of Prefabricated Components	<input type="checkbox"/> Reduced Packaging
<input type="checkbox"/> Reuse of Materials Onsite	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Accurate Material Estimates	<input type="checkbox"/> _____

## **Conversion Factors for Selected Loose Materials**

Concrete	2370 lbs/cu yd	1.18 tons/cu yd	0.84 cu yds/ton
Asphalt	1940 lbs/cu yd	0.97 tons/cu yd	1.03 cu yds/ton
Brick	2430 lbs/cu yd	1.21 tons/cu yd	0.82 cu yds/ton
Dirt	2660 lbs/cu yd	1.33 tons/cu yd	0.75 cu yds/ton
Wood	400 lbs/cu yd	0.20 tons/cu yd	5.00 cu yds/ton
Gypsum wallboard	500 lbs/cu yd	0.25 tons/cu yd	4.00 cu yds/ton
Cardboard	50 lbs/cu yd	0.025 tons/cu yd	40.0 cu yds/ton

## **CONSTRUCTION AND DEMOLITION WASTE MATERIAL DISPOSITION SUMMARY**

Fill out the tables below. The unit of measurement is “tons”. Use the conversion factors provided on the previous page. If a different conversion number is used, please provide. If tonnage information is not available, estimates can be provided in “cubic yards”.

<b>Part I. DEMOLITION MATERIALS (tons or cubic yards)</b>					
<u>Material Type</u>	Disposed in Class III Landfill	Taken to Inert Fills	Other Disposal (describe)	Reduced, Recycled or Salvaged	How Diverted? (e.g., reused as aggregate, etc.)
Concrete					
Asphalt					
Dirt					
Wood					
Metals					
Mixed Waste					
Other (describe)					
<b>Total Tons</b>	A=	B=	C=	D=	

**Diversion Rate:  $D / (A+B+C+D) =$**

**Additional Notes / Comments:**

<b>Part II. CONSTRUCTION MATERIALS (tons or cubic yards)</b>					
<u>Material Type</u>	Disposed in Landfills	Taken to Inert Fills	Other (describe)	Reduced, Recycled or Salvaged	How Diverted? (e.g., reused as aggregate, etc.)
Concrete					
Asphalt					
Dirt					
Wood					
Metals					
Mixed Waste					
Other (describe)					
<b>Total Tons or Cubic Yards</b>	A=	B=	C=	D=	

**Diversion Rate:  $D / (A+B+C+D) =$**

**Additional Notes / Comments:**

Disposal Facilities

Please name of the facilities (e.g., landfill or inert facility name) materials are taken to:

Facility Name Total Tons or Cubic Yards

Facility Name Total Tons or Cubic Yards

Facility Name Total Tons or Cubic Yards

\*\*\*\*\*

Recycling Facilities

Please name of the recycling facilities or recycler (materials given or sold to):

Recycler / Recycling Facility Name Total Tons or Cubic Yards

Recycler / Recycling Facility Name Total Tons or Cubic Yards

Recycler / Recycling Facility Name Total Tons or Cubic Yards

To the best of my knowledge, the above estimates are an accurate representation of the disposition of the construction and demolition materials generated on-site at the construction job. I understand that the City may audit disposal and recycling documentation related to this survey.

Print Name Signature

Additional Notes / Comments: