

# Building Approvals Department

6911 No. 3 Road, Richmond, BC V6Y 2C1

#### www.richmond.ca

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## Demolition Waste and Recyclable Materials

No.: BUILDING-27 Date: 2016-03-17 Revised: 2020-03-05

This bulletin is to inform Owners, Builders, and Contractors of the requirements for handling demolition waste and recycling materials for single family and accessory structures.

## Summary:

- Waste and recyclable materials resulting from demolition work must be reused or sent to an approved waste disposal and recycling facility.
- A demolition application is to be submitted and approved, prior to demolition.
- A Compliance Report must be submitted upon demolition completion.

## **General Information:**

The City or Richmond has successfully achieved its goal to divert 70% of municipal solid waste in 2013 and is now close to meeting the 80% target in 2020. This has helped ensure that waste and recyclable materials resulting from demolition work are managed in a manner that enhances and protects the well-being of the community.

Prior to demolition work, a demolition application must be submitted.

#### All demolition applications must be accompanied with the following:

- 1. Schedule A: Waste Disposal and Recycling Services Plan (attached).
- 2. Payment of a non-refundable application fee (please refer to the Application Fees).
- 3. Payment of a Waste Disposal and Recycling Services Fee based on the square footage of the building/structure to be demolished.

## Upon the completion of the demolition of the building/structure, the applicant must submit to the Building Inspector within 90 days:

- 1. Completed Schedule B: Compliance Report (attached).
- 2. All original copies of receipts, weight bills, etc.

Should you have any questions, comments, or suggestions concerning this bulletin, please reference the Bulletin number and email building@richmond.ca or call the Building Approvals General Inquiries line at 604-276-4118.

Waste I	Schedule "A" Disposal and Recycling Services Plan (Single Family/Duplex - Residential)
Date	
Demolition Project Site Address	
<b>Demolition Type</b> Residential I	Building Other
Project Floor Space [square feet] Main Floor Space [square feet]	Estimated Total Waste and Recyclable Material Generation = tonnes (from Table 1)
Total Floor Space [square feet]	
Estimated Waste and Recyclable Mat	erial Generation (from Table 1)
Roofing = kg Foundations and footings = Other material = kg <b>Total =</b> (Walls/Flooring+ Roofi	ing+ Foundations + Other) ÷ 1000 =tonnes
Name of Permit Applicant:	(please print)
Signature of Permit Applicant	Date
NOTE TO APPLICANT: Please comple	ete the other side of the form
CITY STAFF USE ONLY	
Building Permit No. ( <i>demolition</i> ):	
Waste Disposal and Recycling Services Package	rm 1 – Project information and checklist received from permit applicant
Application Fee Received     Fee Received     Waste Dispose	sal and Recycling Services Fee Amount \$
Calculation of Fees: Fees set-out in th	e Consolidated Fees Bylaw No 8636.
Waste Disposal and Recycling Service	s that will be required:
Removal of all recyclable materials than disposal	to an authorized recycling facility or to a disposal facility for a purpose other
Re-use of recyclable materials as p acceptable manner	roposed in this Waste Disposal and Recycling Services Plan or in another
Signature of Application Reviewer:	
Keep a copy of this page and Form 2 in	n file

#### TABLE 1

Planning how you will manage the recyclable materials generated at your site will help you meet the recycling requirements. Please complete the following checklist of the types of recyclable materials that your project is expected to generate and submit as part of Form 1. Use this checklist for discussion with waste collection, recycling and disposal companies. A list of recycling facilities is available from the Permits Department or <a href="http://www.metrovancouver.org/services/permits/Permits%20%20Regulations/ActiveSolidWasteLicenceList.pdf">http://www.metrovancouver.org/services/permits/Permits%20%20Regulations/ActiveSolidWasteLicenceList.pdf</a>

You must keep track of <u>all</u> materials generated over the duration of the project by keeping receipts from all recycling and disposal facilities or signed forms from all salvagers for material re-use (Form 3 –compliance report).

Materials	Will the Work generate this material?	Will this material be reused or used as backfill? If yes, specify how and where.	Estimate of material generated as waste (incl. recyclable material) (kg)	For information
Asphalt				Can be recycled
Cardboard				Can be recycled.
Cement and concrete				Can be recycled
Uncontaminated excavated soil and rocks				Can be reused or recycled
Drywall / Gypsum				All must be recycled
Green waste (incl. shrubs, lawn, small trees)				Can be reused or composted
Glass				May be recyclable
Metal				Can be recycled
Plastic - rigid buckets, etc (no PVC)				Can be recycled
Plastic - wrapping and bags				Can be recycled
Roofing - Asphalt shingles				Can be recycled
Wood – clean				Can be recycled
Wood – roofing				Can be recycled
Other recycled/reused materials (Please list)				
Estimate of Total Waste (incl. Recy	clable Material) Ge	nerated from Demolition (kg):		

Note: Do not include **Hazardous Materials** in this Form. All hazardous wastes must be disposed of according to Work Safe BC and BC Minis Environment requirements, as well as any additional requirements imposed by the disposal facility.

## Schedule "B"

## **Compliance Report**

Submit this form following the completion of project and attach documentation (copies of receipts, weigh bills, etc.)

Demolition Type:	Residential Building	Other		
Building Type:	Wood frame		Other	
Project Site Addre	ss:			
Building Permit No	o. (demolition):	Name o	f permit holder:	
Project Floor Spac	e [square feet]:	(Main floor	) (Total)	
Project Start Date	(DD/MM/YYYY):/	_/ Project	Completion Date (DD/MM/YYYY)://	
	Waste Disposal	and Recycling Serv	vices Plan Compliance	
Diversion Form	and documentation (i.e., r	eceipts and weigh b	ills) attached	
			nazardous material removed to a <b>Recycling</b> ices Plan) = = "A"	
Tonnes disposed	l (i.e. non-hazardous <b>wast</b> e	e removed to a <b>Disp</b>	osal Facility) = = "B"	
Total non-hazardous tonnages of waste from demolition = = A+B = Total				
Level of Compliance = (A ÷ Total) x 100 = % = "C" (use for refund calculation)				
Waste Disposal and Recycling Services Fee Refund Calculation				
Waste Disposal a	nd Recycling Services F	ee paid (from Form	1) \$= "D" (use for refund calculation)	
Refund calculated	d as follows:			
If C is 70% or grea	ter, then D = Refund = \$ _			
If C is less than 70	%, then (C ÷ 70) x (D) = R	efund = \$		

CITY STAFF USE ONLY				
Compliance Report	Amount of <b>Waste Di</b> Amount of fee refund	-	ecycling Services Fee paid	(Form 1) <b>= \$</b>
Compliance with Was Recycling Services re		Yes	Partial	□ No
Theory ching ber vices to	equirements			

Signature of Permit Holder	Signature of Compliance Report Reviewer
DATE:	DATE:

### **Diversion Form Example**

Project Site Address			Building Permit No. (demolition)		
Calculate your achieved recycling rate as described below. Use recycling facility and disposal facility receipts to fill out the information below. Ask your hauler, recycler or site cleanup vendor to assist you. A volume to weight conversion table, if required, is on the next page.					
COMPLETE AND RETURN WITH RECEIPTS WITHIN 90 DAYS OF PROJECT COMPLETION Note: Each receipt must show the type and quantity of materials received and permit #					
		А	В		
Material Type	Tonnes Reused or taken to Recycling Facility	Reuse or Recycling Facility used for purposes other than Disposal (name, location)	Tonnes taken to Disposal Facility	Disposal Facility Used (name, location)	
Asphalt					
Cardboard					
Cement and concrete					
Uncontaminated excavated soil					
and rocks					
Drywall / Gypsum		DRAFT			
Green waste (incl. trees/shrubs)		SAMPLE			
Glass					
Metal					
Plastic – rigid (no PVC)					
Plastic wrapping and bags					
Roofing – asphalt shingles					
Wood - Clean					
Wood - Roofing					
Other recycled/reused materials					
(Please list)					
Mixed materials (excluding					
hazardous materials)					
TOTAL non-hazardous	A =		B=		
MATERIALS	~-		0-		
			_		
Column Totals A/(A+B) X 100=% Materials managed as authorized					

\* The **building inspector** will compare the total quantity of materials from columns A and B with the amount of waste expected from the project, based on estimates in Table 1 of Schedule C.

#### TABLE 1 - ESTIMATING WASTE GENERATION

Material type	Quantity	Lbs	Kg
Demolition			
Wood – floor (without conc. topping)	1 sq ft	10	4.5
Wood – floor (with conc. topping)	1 sq ft	20	9
Wood – wall (exterior)	1 lin ft	25	11.4
Wood – wall (interior)	1 lin ft	20	9
Wood – roof	1 sq ft	5	2.2
Concrete slab (4" thick)	1 sq ft	50	22.7
Asphalt	1 sq ft	50	22.7
Brick/masonry	1 sq ft	50	22.7
Spread footing (20" wide)	1 lin ft	265	120.5

#### TABLE 2 - VOLUME TO WEIGHT CONVERSION

Mixed C&D	Quantity	Lbs	Kg
Mixed C&D (structural)	1 cu yd	500	227.3
Mixed inerts (concrete, brick, dirt, asphalt)	1 cu yd	2000	909.1
Separated inerts	1 cu yd	2000	909.1
Wood	1 cu yd	375	170.5
Metals	1 cu yd	906	411.8
Roofing Materials			
Asphalt shingles/Composition	1 cu yd	419	190.5
Asphalt shingles/Composition	1 sq ft	3	1.4
Asphalt Tar Roofing	1 cu yd	2919	1326.8
Wood Shake/Shingle Roofing	1 cu yd	435	197.7
Wood Shake/Shingle Roofing	1 sq ft	2	0.9
Tiles (concrete roofing)	1 cu yd	10	4.5
Tiles (concrete roofing)	1 sq ft	2900	1318.2
Yard Waste			
Green waste (shrubs, turf, etc.)	1 cu yd	500	227.3
Yard trimmings	1 cu yd	108	49.1

Source: City of Santa Monica and Foster City Building Inspection Division (CA)