

General Purposes Committee Electronic Meeting

Anderson Room, City Hall 6911 No. 3 Road Monday, October 20, 2025 4:00 p.m.

		That the implementation of the poppy-emblem on Francis Road, as described in the report titled "Memorial Road Name Sign Program", dated September 24, 2025, from the Director, Transportation be approved.
		STAFF RECOMMENDATION
		Designated Speaker: Sonali Hingorani
GP-8		See Page GP-8 for full report
	1.	MEMORIAL ROAD NAME SIGN PROGRAM (File Ref. No. 10-6500-01) (REDMS No. 8161999)
		ENGINEERING AND PUBLIC WORKS DIVISION
GP-3-		Motion to adopt the minutes of the meeting of the General Purposes Committee held on October 6, 2025.
		MINUTES
Pg. #	ITEM	

Pg.#	ITEM	
	2.	RECOMMENDATIONS TO AMEND RICHMOND'S DEMOLITION WASTE AND RECYCLABLE MATERIALS BYLAW NO. 9516 (File Ref. No. 10-6125-07-04) (REDMS No. 7993034)
GP-11		See Page GP-11 for full report
		Designated Speaker: Marcos Alejandro Badra & Jovan Cheema
		STAFF RECOMMENDATION
		That draft amendments to the City's Demolition Waste and Recyclable Materials Bylaw No. 9516, as outlined in the report titled "Recommendations to Amend Richmond's Demolition Waste and Recyclable Materials Bylaw No. 9516", dated October 9, 2025, from the Director, Climate and Environment, be prepared.
		ADJOURNMENT

General Purposes Committee Agenda – Monday, October 20, 2025





General Purposes Committee

Date:

Monday, October 6, 2025

Place:

Anderson Room

Richmond City Hall

Present:

Mayor Malcolm D. Brodie, Chair

Councillor Chak Au (by teleconference)

Councillor Carol Day

Councillor Laura Gillanders

Councillor Kash Heed Councillor Andy Hobbs Councillor Alexa Loo Councillor Bill McNulty Councillor Michael Wolfe

Call to Order:

The Chair called the meeting to order at 4:00 p.m.

MINUTES

It was moved and seconded

That the minutes of the meeting of the General Purposes Committee held on September 15, 2025, be adopted as circulated.

CARRIED

DELEGATION

- 1. Dr. Jeff Zabudsky, BCIT President, spoke to his presentation "BCIT and the City of Richmond Collaborating for a Vibrant and Prosperous Community" (copy on file, City Clerk's office), and highlighted the following:
 - BCIT is one of Canada's largest polytechnics, serving almost 50,000 (full/part time) students per year;

General Purposes Committee Monday, October 6, 2025

- There are five campuses, offering 300+ programs and a range of credentials from entry level Certificate programs through to Master's Degrees;
- The Richmond Aerospace Technology Campus (ATC) is one of Canada's largest post-secondary aerospace trainers, providing a workforce for the thriving air sector;
- BCIT is the only post-secondary in North America offering globally recognized accreditation in all modes of transportation: air, sea, road, and rail, and the exclusive provider within BC of Avionics, Aviation Management and Operations, and Gas Turbine Technician programs;
- A new five year strategic plan, "Future Ready: Student Success for a Complex World" (copies circulated to Committee and on file, City Clerk's office), sets out the BCIT Strategic Plan 2025-2030, aligning BCIT's mission and vision to bring together industry and education for the success of the students, noting that everything done at BCIT is connected to industry, ensuring there is market demand and that there are jobs upon completion of study; and
- New to BCIT Richmond campus within the last year is BC's first-ever BC site for biomanufacturing training, a state-of-the-art centre, in partnership with the government of Canada and BC, a thriving and growing field that the Province is looking to see growth in the sector.

In response to queries from Committee, Dr. Zabudsky noted (i) given what BCIT is and how core it is to the economy of BC, the vast majority of students are from BC, with 10-11% of the total student population being international students, and (ii) on site there are operating engines where students have to maintain them and ensure they are operational.

ENGINEERING AND PUBLIC WORKS DIVISION

2. STEVESTON HIGHWAY MULTI-USE PATHWAY PROJECT – NEXT STEPS

(File Ref. No. 10-6500-01) (REDMS No. 8160500)

Staff reported the first three phases of the Steveston Highway Multi-Use Pathway (MUP) project is complete, with significant cost savings to bring forward Phase 4 to complete the project goal to the Steveston interchange, to provide a connection to the entertainment district and the future tunnel.

General Purposes Committee Monday, October 6, 2025

In response to queries from Committee, staff noted (i) there has been some preliminary design work for consideration of the MUP link up with the Steveston interchange, with the route straight along the south side of Steveston Highway considered the preferred option, (ii) the MUP route through the industrial neighbourhood on the south side would cost slightly less but receive considerably less TransLink funding, increasing the City's cost, and (iii) there are approximately 116 trees along that portion of Steveston Highway of which 34 may be impacted, however there would be sufficient space to add 48 new trees should the 34 trees identified be removed.

Further discussion ensued with respect to the anticipated funding to complete Phase 4 of the MUP project. Staff noted (i) currently there is funding from TransLink as part of the existing project, with a further application for \$2,000,000 dedicated grant funding from TransLink anticipated for 2026, and (ii) should Phase 4 not move ahead, the remaining grant funds from TransLink would be returned.

In response to further queries from Committee, staff noted (i) a final design for the tunnel is not available at this time, but a connection from the tunnel at the east side of the new interchange, which will have bicycle facilities on it, has been designed so far and anticipated to complete by the end of November 2025, (ii) there are future long term plans (five plus years) to consider a Phase 5 to extend further east, (iii) Phase 4 MUP is anticipated to begin following completion of the Steveston interchange; currently in the design phase and will need public consultation, and (iv) it is planned for the lanes to be narrowed, consistent with the current MUP, noting the intent to undertake the project with minimal tree loss.

It was moved and seconded

- (1) That Option 1, to amend the scope and budget of the Steveston Multi-Use Pathway Phase3 project to include construction of Phase 4 with no additional City funding, as described in the staff report titled "Steveston Highway Multi-Use Pathway Project – Next Steps", dated September 23, 2025, from the Director, Transportation be approved;
- (2) That a submission to TransLink for funding as part of the 2026 Cost-Share Program for Steveston Multi-Use Pathway – Phase 3 and Phase 4 be endorsed; and
- (3) That the Consolidated 5 Year Financial Plan (2025-2029) be amended accordingly.

CARRIED

Opposed: Cllrs. Day

Heed

General Purposes Committee Monday, October 6, 2025

The following **referral motion** was then introduced:

It was moved and seconded

That staff consider the possibility of a multi-use pathway, including road consideration, between the east side of Highway 99 to Riverport on Steveston Highway.

The question on the referral motion was not called as a brief discussion on the merits of the referral motion ensued.

The question on the referral motion was then called and it was **CARRIED**.

FINANCE AND CORPORATE SERVICES DIVISION

3. **2026 COUNCIL AND COMMITTEE MEETING SCHEDULE** (File Ref. No. 01-0105-01) (REDMS No. 8171088)

It was moved and seconded

- (1) That the 2026 Council and Committee meeting schedule, as outlined in Attachment 2 of the staff report, dated September 19, 2025, from the Director, City Clerk's Office, be approved; and
- (2) That the Council Procedure Bylaw No. 7560 be varied to allow for the following revisions as detailed in the report titled "2026 Council and Committee Meeting Schedule" dated September 19, 2025, from the Director, City Clerk's Office, be approved:
 - (a) That the Regular Council meetings (open and closed) of August 12 and August 26, 2026 be cancelled; and
 - (b) That the August 18, 2026 Public Hearing be rescheduled to September 8, 2026 at 5:30 p.m. in the Council Chambers at Richmond City Hall.

CARRIED

Opposed: Cllr. Day

General Purposes Committee Monday, October 6, 2025

ADJOURNMENT

It was moved and seconded *That the meeting adjourn (5:01 p.m.)*.

CARRIED

Certified a true and correct copy of the Minutes of the meeting of the General Purposes Committee of the Council of the City of Richmond held on Monday, October 6, 2025.

Mayor Malcolm D. Brodie Chair Lorraine Anderson Legislative Services Associate



Report to Committee

To:

General Purposes Committee

Date:

September 24, 2025

From:

Lloyd Bie, P.Eng.

Director, Transportation

File:

10-6500-01/2025-Vol

01

Re:

Memorial Road Name Sign Program

Staff Recommendation

That the implementation of the poppy-emblem on Francis Road, as described in the report titled "Memorial Road Name Sign Program", dated September 24, 2025, from the Director, Transportation be approved.

Lloyd Bie, P.Eng.

Director, Transportation

(604-276-4131)

REPORT CONCURRENCE					
ROUTED TO: CONCUI		RRENCE	CONCURRENCE OF GENERAL MANAGER		
City Clerks Office		\checkmark	Voeland Zwaaz		
SENIOR STAFF REPORT REVIEW		INITIALS:	APPROVED BY CAO		
		CO	Seren.		

Staff Report

Origin

The City has received a request for the addition of a poppy-emblem on Francis Road. As this request requires a change to the City's existing Memorial Road Name Sign Program, staff are seeking Council direction regarding this request.

This report supports Council's Strategic Plan 2022-2026 Focus Area #6 A Vibrant, Resilient and Active Community:

Vibrant, resilient and active communities supported by a wide variety of opportunities to get involved, build relationships and access resources.

Background

In 2015, the Friends of the Richmond Archives requested that the City of Richmond consider adding a poppy emblem to the existing streets named after local soldiers who lost their lives in military service.

In response, City Council endorsed the creation of Richmond's Memorial Road Name Sign Program in 2016. The program currently includes 55 existing roads that have poppy-adorned street name signs.

Analysis

The Memorial Road Name Sign Program (Figure 1) currently includes Richmond residents who:

- Lost their lives in World War I and World War II;
- Names were inscribed on the Richmond Cenotaph; and
- Have a road named after them.



Figure 1: Example of Existing Memorial Street
Name Sign

Research on Francis Road suggests that Warrant Officer Robert Lewis Francis who is named on the Cenotaph is the son of the family that Francis Road is named after.

There are another 11 names on the Cenotaph, who also have road names. Preliminary findings indicate that Francis Road is the only name that has direct family lineage between the name of the fallen soldier on the Cenotaph and the name of an existing road. Should further research identify any additional names associated with existing roads, staff will report back to Council with a recommendation for expansion of the Memorial Road Name Sign Program.

Proposed Memorial Road Name Sign for Francis Road

Staff recommend adding a poppy on Francis Road. Approximately 30 street name signs along Francis Road will be replaced with the poppy-adorned street name signs. Staff anticipate implementing the new Francis Road memorial street name signs prior to Remembrance Day 2025.

Financial Impact

The estimated cost for the Francis Road memorial signs is \$6,000. This cost can be accommodated through the approved 2025 Arterial Road Improvement Program.

Conclusion

The installation of Memorial Road Name signs is an additional tribute to and legacy for those Richmond residents who have lost their life in military service. A request for a poppy-emblem on Francis Road has been received by the City. Warrant Officer Robert Lewis Francis is one of the names inscribed on the Cenotaph. As the research indicates a direct relation to the Francis family, staff recommend a poppy-emblem be added to the Francis Road street signs.

Additional research on the 11 remaining names on the Cenotaph that are also existing roads in Richmond will be undertaken. Any potential further expansion of the existing Memorial Road Name Program will be brought forward to Council for consideration.

Sonali Hingorani, P.Eng.

Court Injerni

Manager, Transportation Planning and New Mobility

(604-276-4049)

SH:ck



Report to Committee

To:

General Purposes Committee

Director, Climate and Environment

Date:

October 9, 2025

From:

Chad Paulin

File:

10-6125-07-04/2025-

Re:

Vol 01

Recommendations to Amend Richmond's Demolition Waste and Recyclable

Materials Bylaw No. 9516

Staff Recommendation

That draft amendments to the City's Demolition Waste and Recyclable Materials Bylaw No. 9516, as outlined in the report titled "Recommendations to Amend Richmond's Demolition Waste and Recyclable Materials Bylaw No. 9516", dated October 9, 2025, from the Director, Climate and Environment, be prepared.

Childo

Chad Paulin

Director, Climate and Environment

(604-247-4672)

Att. 2

REPORT CONCURRENCE					
ROUTED TO:	Concurrence	CONCURRENCE OF GENERAL MANAGER			
Business Services Finance Department Public Works Building Approvals Community Bylaw Law		Volland Iwaaq			
SENIOR STAFF REPORT REVIEW	Initials:	APPROVED BY CAO			

Staff Report

Origin

Council adopted the *Demolition Waste and Recyclable Materials Bylaw No. 9516* in 2016 to align with Metro Vancouver's regional waste diversion targets at that time. Richmond's current bylaw requires applicants of one- and two-family dwellings to divert 70% of the demolition materials, measured in weight, from the landfill. Compliance with this target is currently supported through a refundable application fee, which is returned when the applicant demonstrates that the requirements have been met. Richmond's *Demolition Waste and Recyclable Materials Bylaw No. 9516* has contributed to increases in material recovery and an overall reduction in landfill disposal by 25,000 tonnes since being adopted.

Richmond's Circular City Strategy, endorsed in 2023, provides a framework for transitioning to a circular economy. The Strategy sets goals to improve waste diversion practices, reduce demolition waste, and strengthen the secondary materials market. Council endorsed staff undertaking an assessment of potential updates to the Bylaw in 2024, supported by secured funding from the Green Municipal Fund. This assessment included a study on waste generation and circular opportunities in the built environment, and an industry engagement program to identify strategies for enhancing material diversion in demolition projects.

This report summarizes the results of the study and industry engagement and seeks endorsement to proceed with updating the *Demolition Waste and Recyclable Materials Bylaw No. 9516* as outlined below.

This report supports Council's Strategic Plan 2022-2026, Focus Area #1 Proactive in Stakeholder and Civic Engagement:

Proactive stakeholder and civic engagement to foster understanding and involvement and advance Richmond's interests.

This report supports Council's Strategic Plan 2022-2026 Focus Area #2 Strategic and Sustainable Community Growth:

Strategic and sustainable growth that supports long-term community needs and a well-planned and prosperous City.

2.3 Ensure that both built and natural infrastructure supports sustainable development throughout the City.

This report supports Council's Strategic Plan 2022-2026 Focus Area #5 A Leader in Environmental Sustainability:

Leadership in environmental sustainability through innovative, sustainable and proactive solutions that mitigate climate change and other environmental impacts.

Analysis

Metro Vancouver is responsible for managing solid and liquid waste generated in the region and implements bylaws and regulations to protect human health and the environment. Metro Vancouver's regional Integrated Solid Waste and Resource Management Plan, approved by the Province in 2011, outlines Construction and Demolition (C&D) waste diversion targets, beginning at 70% in 2015 and then increasing to 80% by 2020, which remain the current regional benchmarks. In 2022, approximately 338,955 tonnes of C&D waste were disposed of at landfills in Metro Vancouver, accounting for about one-third of all landfilled waste in the region. With increasing densification and development in Richmond and across the region, demolition activity is expected to rise. A 2023 report issued by the federal government projected that achieving a 90% diversion rate of C&D materials nationally by 2030 could add \$457.7 million to GDP, create 3,332 jobs, and avoid approximately 8 million tonnes of CO₂ emissions annually.

Richmond's *Demolition Waste and Recyclable Materials Bylaw No. 9516* (the Bylaw) sets a minimum 70% diversion requirement for materials generated from the demolition of one- and two-family dwellings. Staff analyzed 556 Demolition Permit Applications for one- and two-family dwellings submitted between September 2019 and October 2023. Approximately 25,000 tonnes of material were diverted from landfills through more than 20 local recycling companies, achieving an average diversion rate of 85%. Staff continue to identify strong industry uptake, with a bylaw compliance rate of over 95%. Further, staff note that all recyclable materials continue to be processed at local or regional recycling facilities in Metro Vancouver.

Table 1, below, lists a breakdown of diverted demolition materials by percentage and by number of local facilities referenced in demolition permit applications and Attachment 1 illustrates the locations of these facilities in Metro Vancouver. Staff attribute this success, in part, to the refundable fee currently set at \$3.75 per square foot, which is refunded when the applicant demonstrates compliance with the Bylaw's diversion requirements. Additionally, the City has a House Moving Program in place which has further contributed to compliance by relocating a total of 18 houses to date. The remaining 5% reflects circumstances where applicants have not met the diversion requirements or chose not to pursue the refundable fee.

Table 1: Number of Local Facilities Referenced in Demolition Permit Applications

Material Type	% of Total Diverted Material (by weight)	Number of Facilities Listed in Permits	Number of Facilities in the Region
Cement and Concrete	88.76%	6	21
Wood - Clean	4.95%	6	32
Uncontaminated Excavated Soil and Rocks	3.55%	5	12
Drywall/Gypsum	0.90%	2	13
Wood - Roofing	0.75%	3	32
Metal	0.50%	7	41
Asphalt	0.28%	3	17
Green Waste	0.27%	4	19
Roofing - Asphalt Shingles	0.01%	1	12
Cardboard	0.01%	1	30
Glass	< 0.01%	1	12
Plastic - Wrapping and Bags	< 0.01%	1	12
Plastic - Rigid Buckets	< 0.01%	1	12

Concrete represents approximately 50% to 60% of the weight of a typical single- or two-family dwelling, while the remaining 40% consists of non-concrete materials such as wood, metals, and drywall. These non-concrete materials have high recycling potential, and a phased increase in diversion targets will support greater recovery as regional recycling capacity continues to expand. Table 1 lists the number of recycling facilities in the Metro Vancouver region that receive and process non-concrete materials, confirming that multiple local facilities are available to support diversion of wood, drywall, metals, and other streams.

While compliance rates remain high for one- and two-family dwellings, the Bylaw currently excludes multifamily and non-residential buildings, which generate a substantial share of construction and demolition waste in Richmond. Aligned with the Richmond Circular City Strategy, Council endorsed an Industry Engagement Program in 2024 to identify strategies for reducing embodied carbon and enhancing material diversion across all sectors, including potential bylaw updates. Expanding the Bylaw requirements to include multifamily and non-residential buildings can further increase diversion rates, increase the supply of materials for reuse and recycling, and strengthen the local economy.

As part of the engagement process and assessment of demolition permit applications, staff also advanced a Material Flow Analysis with support from \$87,500 in funding awarded through the Federation of Canadian Municipalities' Green Municipal Fund in 2023. The study has provided preliminary results that complement industry feedback and the application analysis, supporting the proposed direction for bylaw amendments.

Summary of Industry Engagement Results

Staff implemented the Industry Engagement Program in March 2024, which included representation from several sectors and markets (Figure 1). Through the Industry Engagement Program, staff engaged in multi-level working groups with municipalities, Metro Vancouver, senior governments, industry, and non-profits. Staff identified active policy and tool development to advance diversion and recycling of end-of-life building materials, strengthening local economies and regional projects.

The City hosted five interactive engagement workshops, attended by 248 industry and regional representatives and 22 expert presenters, including members of the Urban Development Institute and the Richmond Small Builders Association. Workshop content addressed policy frameworks, potential bylaw amendments, pre-demolition audits, financial considerations, and strategies for integrating circular practices without delaying projects (Attachment 2).

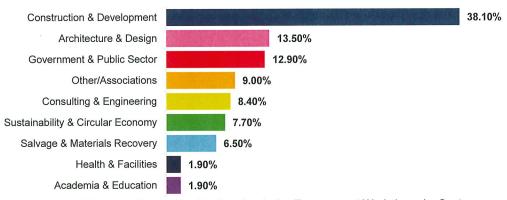


Figure 1: Stakeholder Participation in the Engagement Workshops by Sector

Results from industry engagement demonstrated strong support for the proposed bylaw amendments, with no opposition noted. Participants emphasized the following key themes that will be incorporated in future updates, if endorsed:

- Broad support for including multifamily and non-residential buildings, with emphasis on phasing requirements to match market readiness.
- Agreement that staged increases are achievable, supported by Richmond's diversion record and regional experience.
- Preference for prioritizing salvage and reuse, supported by calls for standardized deconstruction methods, pre-demolition audits, and stronger secondary markets. Social benefits of reclaimed materials for affordable housing were highlighted.
- Consensus on the need for consistent definitions and standards across municipalities to support compliance.
- Broad support for replacing static schedules with staff-issued bulletins, allowing more adaptive and timely updates.
- Participants confirmed the updates are practical, align with ESG policies, and are feasible for large-scale projects.
- Industry welcomed the City's commitment to ongoing engagement; participants expressed strong interest in continued collaboration during rollout.

Through engagement and research, staff note consistent feedback that the proposed direction for amendments presents financial opportunities for the sector.

Feedback from developers and deconstruction contractors confirmed that future inclusion of multifamily and non-residential buildings are unlikely to delay projects or deter development. Further, strong support for a phased implementation approach was a key theme identified. As indicated, a phased approach, as proposed, is intended to assist industry adaptation and promote investment in material recovery infrastructure and circular construction practices. The feedback also aligns with a market analysis conducted by staff, which strongly suggests that future bylaw amendments that include multifamily and non-residential buildings will have no adverse effects on overall project costs, particularly when diversion is planned in advance. While staff note that salvage and deconstruction may require more labour than traditional demolition, staff's analysis

demonstrates that this sector can be cost-neutral or even cost-saving. Residential case studies in North America also reported net savings of up to 37% when salvage revenue and tax deductions were considered, while commercial pilots found costs comparable to or lower than demolition due to the avoidance of disposal fees and the resale of materials. In Metro Vancouver, where landfill tipping fees range from \$127 to \$185 per tonne, diversion already provides a financial incentive with some projects generating taxable deductions of up to \$50,000 for donated materials.

Recommendations for Future Proposed Bylaw Amendments and Implementation Plan

Based on staff's analysis and industry consultation feedback, staff have outlined recommended directions to support future amendments to the Bylaw, summarized in Table 2. If endorsed, the proposed amendments are intended to create new business opportunities in deconstruction, salvage, recycling, and processing, while supporting more resilient and competitive secondary markets through resale, distribution, and logistics.

To support industry adaptation, staff propose a phased implementation plan that signals future demand for circular demolition services without delaying construction.

Table 2: Proposed Direction for Amendments to the Bylaw

Requirement Area	Current Bylaw 9516	Proposed Direction	Effective Date(s)
Scope	Single & Two-Family Dwellings	 Single & Two-Family Dwellings AND Multifamily & Non-Residential Buildings 	November 1, 2026 (Scope Expansion)
Diversion Target	70% (Weight)	▶ 80% (Weight)#	November 1, 2026
Single & Two-Family Dwellings		▶ 90% (Weight)#	July 1, 2029
Diversion Target	Not Applicable	▶ 70% (Weight)#	November 1, 2026
Multi-Family & Non- Residential Buildings		▶ 80% (Weight)#	July 1, 2029
Material Recovery Approach		► Clear requirement to preserve material value through increased materials diversion, aligned with regional practices. The bylaw will not prescribe a methodology to increase diversion or recycling.	November 1, 2026
Schedules A and B	Applicable to the Single & Two-Family Dwellings	► Schedules A and B will be removed from the bylaw and incorporated into staff-issued Bulletins, maintaining their requirements while enabling greater process flexibility through updates outside of the bylaw.	November 1, 2026
Terminology Harmonization		► The vocabulary used throughout the bylaw will be harmonized to align with current permitting practices and regional standards.	November 1, 2026

^{# \$3.75} per square foot refundable fee with a maximum of \$75,000 per application.

As shown in Table 1, concrete is already being successfully diverted at high rates, and the proposed bylaw amendments are intended to build on this success by increasing the diversion of other non-concrete materials such as wood and metals.

Another key theme identified through industry engagement was an emphasis for the City to streamline applications and support any future updates with clear guidelines and training resources. In response, staff would support any future bylaw amendments by developing the following industry support tools with existing staff and financial resources:

- Comprehensive technical guides, factsheets, a centralized online resource hub, and dedicated support channels to assist applicants and contractors in understanding and applying updated requirements;
- Continuing to deliver workshops, webinars, online training modules, and peer learning opportunities to build familiarity with circular demolition practices;
- Establish partnerships with academic institutions, industry associations, and regional working groups to identify and advance effective approaches to material recovery;
- Coordinate pilot projects, regional studies, site visits to model projects, and promotion of successful case studies to illustrate practical strategies and outcomes; and
- Continue targeted engagement with industry through surveys and consultation activities to assess progress and adapt support tools as needed.

If endorsed, staff will begin to prepare the Bylaw amendments and develop an implementation plan for Council's consideration, under separate report.

Financial Impact

None.

Conclusion

Staff are seeking direction to amend the City's *Demolition Waste and Recyclable Materials Bylaw No. 9516* to reflect both local and regional priorities to reduce construction and demolition waste, preserve material value, and advance circular economy practices. If endorsed, staff will prepare draft bylaw amendments for Council's consideration that will be accompanied by a phased implementation plan to support industry readiness and ensure a smooth transition without impacting project timelines. Staff will also continue to engage regional and national working groups to align with best practices and policy developments, advancing material recovery and innovation in circular practices.

Marcos Alejandro Badra

Program Manager, Circular Economy

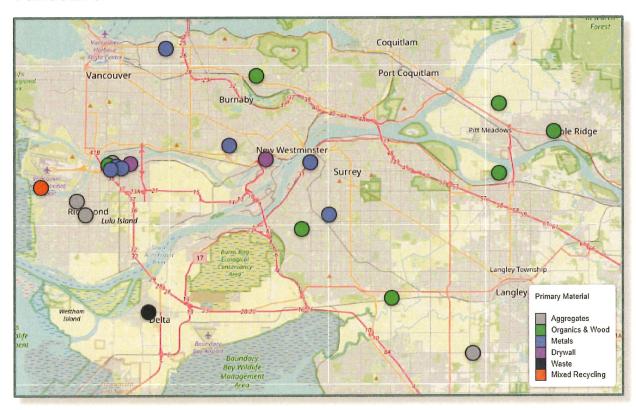
(604-204-8643)

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Att. 1: Location of Recycling Facilities Currently Operating in Metro Vancouver

Att. 2: Demolition Bylaw Review Industry Engagement Summary

Location of Recycling Facilities Currently Operating in Metro Vancouver



Map of recycling facilities identified in 556 demolition permit applications for one- and two-family dwellings between September 2019 and October 2023. Illustrating the primary material streams diverted, including aggregates, wood, metals, drywall, and mixed recycling. The map highlights the distribution of more than 20 local and regional facilities in Metro Vancouver where recyclable materials were processed, supporting the reported diversion rate of 85% and compliance rate of over 95%.

Breakdown of diverted demolition materials by percentage and number of facilities:

Material Type	% of Total Diverted Material	Number of Facilities Listed in Permits
Cement and Concrete	88.76%	6
Wood - Clean	4.95%	6
Uncontaminated Excavated Soil and Rocks	3.55%	5
Drywall/Gypsum	0.90%	2
Wood - Roofing	0.75%	3
Metal	0.50%	7
Asphalt	0.28%	3
Green Waste	0.27%	4
Roofing - Asphalt Shingles	0.01%	1
Cardboard	0.01%	1
Glass	< 0.01%	1
Plastic - Wrapping and Bags	< 0.01%	1
Plastic - Rigid Buckets	< 0.01%	1

Demolition Bylaw Review Industry Engagement Summary

This document summarizes the industry engagement program endorsed by Council in March 2024 to identify opportunities to update the Demolition Waste and Recyclable Materials Bylaw No. 9516. Through a series of workshops, interviews, and consultation activities, the program engaged over 248 participants across construction, design, public sector, and salvage industries, supported by 22 expert presenters. The program focused on identifying practical strategies to advance circular practices in demolition, address barriers to material recovery, and align with emerging policy and market trends.

The attachment is organized into three sections:

- 1. **Survey and Workshop Feedback** insights from participants regarding deconstruction, reuse opportunities, market access, training needs, and policy tools;
- 2. **Builder Interviews** targeted interviews with contractors and developers to understand technical and regulatory needs for scaling circular practices; and
- 3. **Regional and National Policy Scan** a review of external programs and regulatory initiatives relevant to advancing circular demolition.

Additional workshop materials and expert presentations are available through Richmond's Circular Learning Hub, offering resources to support continued collaboration and capacity building.

1. Survey and Workshop Feedback

1.1 How familiar are you with circular economy practices in construction?

The stakeholder responses indicate a wide range of familiarity with circular economy practices in construction, suggesting uneven knowledge across the industry. While some participants demonstrate strong awareness, a significant portion report limited or no familiarity. Stakeholders emphasized the importance of targeted implementation actions—such as technical guides, training workshops, and a centralized support hub—to build capacity, promote consistent understanding, and enable the effective adoption of circular practices, including deconstruction, salvage, and reuse, across demolition-related sectors.

1.2 What barriers have you encountered in integrating secondary materials (deconstruction materials) into building projects?

Stakeholders identified five key barriers to integrating secondary (deconstruction) materials into building projects: limited knowledge (22%), regulatory constraints (20%), cost (19%), lack of market (16%), and limited availability of materials (16%), with "other" barriers comprising the remaining 6% of responses. Participants also highlighted regulatory and cost-related challenges, underscoring the importance of coordinated policy approaches and increased

awareness of financial incentives. Concerns regarding market access and material availability further emphasized stakeholder interest in developing a stronger regional secondary materials network to support the adoption of circular practices in demolition. To address these challenges, stakeholders called for the development of targeted support tools, including training programs, technical guidance, and a centralized hub to close knowledge gaps and promote consistent understanding across the sector.

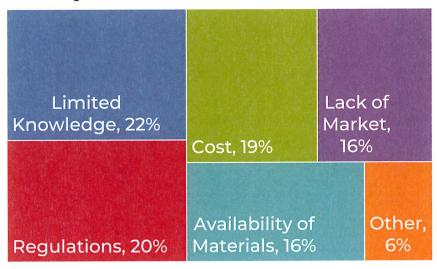


Figure 1: Top Barriers to Using Secondary Materials in Building Projects

1.3 What are the key opportunities you see for integrating deconstruction materials into new building projects?

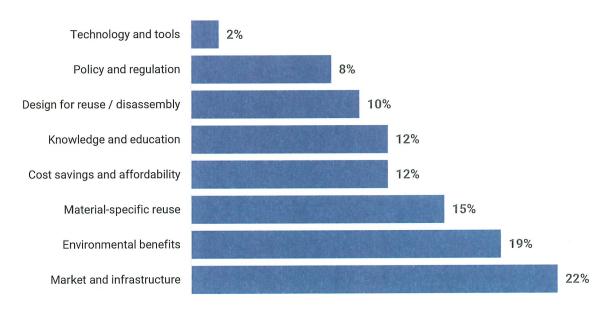


Figure 2: Key Opportunities for Integrating Deconstruction Materials into Building Projects

Stakeholders identified a broad range of opportunities for integrating deconstruction materials into new building projects.

The most frequently cited opportunities included the development of market and infrastructure, environmental benefits such as reducing embodied carbon and landfill waste, followed by material-specific reuse and cost savings and affordability. Other opportunities highlighted by stakeholders included knowledge and educations opportunities, incorporating reuse planning into early design stages, improving policy and regulatory frameworks were noted as important enablers. Stakeholders expressed specific interest in reusing wood, concrete, windows, doors, and steel, suggesting that targeted approaches by material type could support wider adoption.

1.3.1 Advancing Deconstruction, Salvage, and Reuse:

Participants endorsed shifting from conventional demolition to deconstruction. One stakeholder asked, "Do buildings that have been designed to be deconstructed have a lifespan based on materials used?" while another stated, "All buildings should be deconstructed, not only 'heritage'/pre-1950s." A call was made to "replace 'demolition' with 'building removal' in all literature and documentation so that demolition is not assumed or the default." Others advocated for a lifecycle approach: "A plan for maintenance and eventual deconstruction" and "Design for disassembly should be considered resilient design."

The cost of deconstruction was a common concern, but many offered comparative examples: "Deconstruction \rightarrow 2000 sq ft \$48k - \$15k tax credit; Demolition \rightarrow \$20k; after tax credit, comparable price" and "Deconstruction in the US is 20–30% higher [cost] but becomes equal or better with donation tax deduction."

1.3.2 Policy, Permitting, and Incentives

Stakeholders emphasized the role of policy in driving change. One asked, "Can cities mandate pre-demolition audits and combine them with appraisals?" Others recommended that "building code needs to begin considering existing buildings as the majority of buildings in the near future" and that government "provide a tax calculation for deconstruction and use of recycled materials in the BOM for new builds." One person suggested, "A fee should be calculated based on age of home—e.g., a 5-year-old teardown should cost more than an 80-year-old." Other proposals included:

- "Policies need to be added to generate money to incentivize developers/owners/designers."
- "Tipping fees need to be much higher to discourage landfill use."
- "Public procurements" and "land for drop-off or property tax exemptions" for salvaged material spaces.

1.3.3 Supporting the Secondary Materials Market

There was strong support for building infrastructure and systems that facilitate access to salvaged materials. Participants asked, "Where's the store?" and proposed ideas such as a "material drop-off triage center," "developing a market/store with live inventory of available material," and "Vancouver landfill property → potential lumber storage facility." BMEx and matchmaking platforms were referenced repeatedly: "BMEx Marketplace," "scope out your work with municipalities," and "matchmaking program with over 750+ companies engaged." Stakeholders also expressed the need for tools to plan ahead:

 "Need a way to help the industry know further in advance what used materials are available for their projects."

- "Can designers/builders give notice of what they want (reclaimed) so it can be collected over time?"
- "Accessing salvaged wood should become as seamless as going to Home Depot to buy new lumber."

1.3.4 Education, Testing, and Capacity Building

The need for education and skill-building was frequently mentioned. One suggestion was to "have student engineers take reclaimed wood samples and grade them, then submit findings to municipalities." Others expressed a need to "learn more on how to use integrated secondary materials" and highlighted that "education and awareness programs for builders, contractors, City officials, developers, and the general public" are needed.

Stakeholder also commented:

- "Public education on the demolition economy."
- "Need to understand and educate people on the value of wood from different vintages/archetypes of buildings."
- "WE NEED TO LEARN."
- "Share case success stories."

1.3.5 Standards, Testing, and Building Code Updates

Several participants raised concerns about regrading and testing of reused materials. They asked, "How would recycled dimensional lumber be graded?" and "Is the quality of wood from newer homes acceptable?" Others pointed to gaps in standards:

- "Regrading or automatic downgrading is a key focus."
- "Update the building code to allow for structural reuse of dimensional lumber."
- "What's the biggest structural resistance to using reclaimed wood? Lack of data/info of reclaimed?"
- "Remove barriers for re-certifying used/recycled lumber for structural use."

One stakeholder explained: "Fingerjointed pre-stressed lumber is stronger and straighter than virgin lumber in general. Where does this category of product fit?"

1.3.6 Environmental and Social Benefits

Many comments aligned with the Bylaw's climate goals. Stakeholders cited:

- "Embodied carbon reduction, contributes to zero waste goals."
- "Reduce landfill/incinerated waste. Reduced carbon in buildings."
- "Reused concrete slab = 50% reduction in CO₂."
- "How to save for the client and reduce carbon footprint for our grandkids? Do now to save our planet."

1.3.7 Stakeholders noted:

- "(If done ethically and equitably) deconstruction and reuse can be reconciliation and reparation with First Nations and Indigenous people..."
- "It can be considered land back if it is given to Indigenous communities and marginalized groups who need housing, education, and cultural centers."

1.4 What could make purchasing secondary materials as easy as purchasing from a Big Box store?

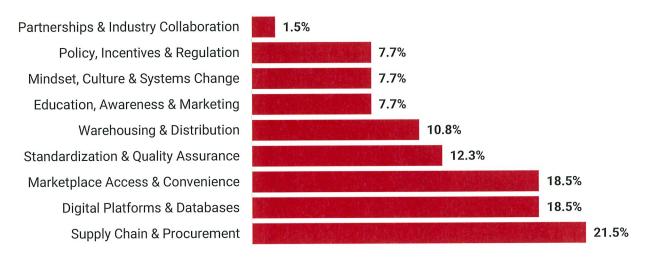


Figure 3: Making Secondary Materials as Accessible as Big Box Store Products

Stakeholders provided practical and forward-thinking ideas on how to make the use and purchase of secondary building materials as seamless and dependable as sourcing from conventional suppliers. Their insights reflect key enablers related to infrastructure, logistics, digital access, quality assurance, and cultural change.

1.4.1 Reliable Supply and Infrastructure to Support Access

Participants emphasized the importance of consistency and predictability in material supply. Several shared concerns about the lack of certainty around what is available and when:

- "Inventory for contractors: certainty and consistency, securing the purchase in advance."
- "Large quantities facilitating choice."
- "Continuous in/out flow for easy access, no waiting time."

To address these gaps, stakeholders proposed the creation of centralized distribution facilities—such as "urban laydown yards," "stockpile materials," or "large depots"—that would enable the building industry to plan ahead and source secondary materials with more confidence. Others called for municipalities to support these efforts by providing "land for material depots," highlighting the need for physical space as part of the infrastructure that supports circular construction practices.

1.4.2 Digital Tools and Marketplace Integration

Several participants emphasized the need for digital solutions that mirror modern procurement systems. Common suggestions included the development of an "online inventory database," an "online marketplace," and a searchable material index. One stakeholder recommended organizing listings in "elemental format (i.e., by construction division) so it can be integrated

into MasterFormat specs," making it easier for designers and contractors to incorporate secondary materials into specifications.

A notable reference was the Building Material Exchange or BMEx, operated by Light House, which was highlighted as a model to expand. BMEx is a free, online B2B marketplace operating on Vancouver Island that connects construction and manufacturing businesses to facilitate the reuse of surplus and salvaged materials. One stakeholder suggested: "Expand the Island model across BC." Such platforms were seen not only as a tool for reducing waste but as a vital step in making reuse logistically viable and commercially scalable.

1.4.3 Convenience and Professional User Experience

Stakeholders drew comparisons between current reuse practices and the polished, efficient experience of sourcing from retail supply chains. Several called for direct integration of reclaimed materials into existing retail ecosystems: "Big Box stores start selling them as an alternative." "Make a Big Box store for the materials." The message was clear: salvaged materials should be just as easy to find, purchase, and deliver as new ones. Other comments supported the creation of hybrid physical/virtual venues and emphasized that convenience is key to encouraging broader uptake. "Needs to be convenient."

"Short-term instant purchases that can be regularly stored." These suggestions point to the importance of removing friction from the user experience and providing intuitive access options for both everyday and specialty construction materials.

1.4.4 Confidence Through Quality Assurance and Standards

Concerns about quality and liability were raised as a significant barrier to reuse. Stakeholders noted that many buyers remain unsure about how salvaged materials compare to new ones:

- "Buyers' uncertainty about quality and quantity."
- "Regrading of timber."
- "Quality assurance system (warranties?)."

Several called for standardized testing, grading, and warranties, suggesting that confidence in secondary materials would increase with clear technical documentation and guidance on reuse. Providing transparent data on material characteristics, such as moisture content, strength, or past treatment, was mentioned as a way to help designers, contractors, and regulators accept secondary materials with greater ease.

1.4.5 Culture Change, Education, and Market Development

Beyond infrastructure and systems, stakeholders expressed the need for a shift in values and expectations. They highlighted the importance of:

- · "Reuse awareness within community."
- · "Mindset shift."
- "Behaviour change."
- "Marketing and data to change mindsets."

Others mentioned the need for more education targeted at contractors, clients, and municipal staff, as well as showcasing successful projects:

- "More publicity of successful projects."
- "Educational resources on site and virtual support."

One participant called for government-led leadership by suggesting the creation of requirements for new builds to include a target percentage of secondary materials to help grow demand.

1.5 Opportunities for Circular Practices in Demolition Bylaws

Stakeholder feedback highlights a broad range of opportunities to integrate circular practices—such as deconstruction, material salvage, and reuse—within the framework of demolition regulations. These practices can unlock environmental, social, and economic benefits when embedded into policy and supported by infrastructure, technical standards, and procurement systems.

1.5.1 Concrete: Resource Recovery and Innovative Reuse

Concrete was frequently cited as one of the most undervalued materials with high reuse potential. Stakeholders identified practical applications for crushed concrete, including aggregate for road base, sidewalk foundations, perimeter backfill, and temporary access roads, aligning with existing industry practices for non-structural reuse. Some also mentioned the modular reuse of large, prefabricated slabs in public infrastructure, such as bridge decks and factory floors. Several noted emerging innovations such as Resin8, a lightweight concrete aggregate made from plastic waste, and CO2RE, a carbon-storing alternative under development, as potential tools for scaling circularity. Additionally, saw-cut concrete elements could be repurposed as landscape blocks or paving stones, expanding their value beyond fill or landfill. These examples suggest that integrating concrete reuse into demolition permitting—by encouraging onsite crushing and recovery, for example—can divert significant tonnage from disposal while supporting local infrastructure and construction needs.

1.5.2 Wood: High-Value Salvage and Community Opportunities

Wood was consistently identified as a material with high environmental and cultural value yet often lost to disposal. Stakeholders proposed reusing dimensional lumber in prefabricated housing, framing, or decking, and highlighted the potential for re-milling offcuts into finger-joint lumber or wood fibre insulation. Some suggested that materials that cannot be structurally reused could still support artisan and cultural practices. Others called for enabling local regrading systems (e.g., with certified engineers or a provincial registry) to make structural wood recovery more feasible. There was support for public procurement policies that specify reclaimed wood in civic buildings, along with financial incentives such as reduced permitting fees if salvaged wood is reused. Stakeholders also expressed that wood's high upfront cost justifies prioritizing its recovery and reuse.

1.5.3 Interior Elements: Access, Affordability, and Public Value

Stakeholders saw strong reuse potential in interior elements like doors, windows, cabinets, drywall, and acoustic panels. These materials can be directly reused in both market housing and community projects or sold through secondary markets to offset costs. The value of fixtures and furnishings was also highlighted—some suggested curated resale experiences for designers and contractors, while others proposed public donation centres, appliance auctions, or repair cafés to support circular access at the community level. Stakeholders emphasized that interior salvage is especially relevant to affordability, as these materials could be reused at low or no cost in projects serving lower-income households.

Stakeholders also proposed including reclaimed components in public procurement pilots—for example, in "lighting-as-a-service" contracts or furnishings for civic buildings—as a way to demonstrate feasibility and open new reuse channels.

1.5.4 Metals: Durable Components and Cross-Sector Reuse

Stakeholders noted that metals are often overlooked in reuse strategies, despite their high embodied carbon and long lifespan. They proposed reusing metal framing and cladding, high-metal-content doors, and fabricator surplus in architectural applications, roof screens, shade structures, and bus stops. Innovative ideas included partnering with artists and art museums to create high-value products from salvaged metals and promoting design competitions or cross-industry reuse pilots. Others emphasized that metals could be retested and downgraded for non-rated use, rather than sent to scrap, and advocated for increasing inter-jurisdictional coordination to share surplus materials across regions. Stakeholders also referenced examples such as Park 2020 in the Netherlands, where building components are intentionally designed for disassembly and reuse, including metal elements.

The feedback from stakeholders underscores a shared readiness to scale circular practices in demolition projects. Rather than viewing demolition and deconstruction as mutually exclusive, many emphasized the opportunity to embed circular principles into permitting, process design, and material management within the demolition bylaw.

These ideas go beyond waste diversion to support:

- Local economic development (e.g., jobs in salvage, remanufacturing, resale)
- Affordable construction (e.g., community access to quality reclaimed materials)
- Innovation in building systems (e.g., prefabrication with secondary inputs)
- Climate and cultural goals (e.g., reducing embodied carbon and supporting Indigenous uses)

Stakeholders provided concrete, experience-based suggestions that can inform implementation tools, guide market development, and reinforce the practical integration of circularity into building transitions.

1.6 Have you worked with reclaimed materials before?

In response to the question "Have you worked with reclaimed materials before?", 40.7% of stakeholders (57 participants) answered yes, while 59.3% (83 participants) responded no. Stakeholder input suggests that both experienced and new participants are engaged in the conversation around material reuse. The high proportion of respondents without prior experience with reclaimed materials points to a need for capacity-building initiatives. Stakeholders indicated that training, technical assistance, and demonstration projects would help increase comfort and capability in applying reclaimed materials, supporting broader adoption through the updated bylaw framework.

1.7 Stakeholder Participation by Sector

Stakeholder participation reflected strong representation from sectors directly involved in demolition and material recovery. Construction and development accounted for 38.1% of participants, bringing practical knowledge of demolition workflows and salvage logistics. This was followed by professionals in architecture and design (13.5%) and the government and public sector (12.9%), whose involvement is essential for shaping permitting frameworks and enabling circular regulations. Participants from consulting and engineering (8.4%), sustainability

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and circular economy (7.7%), and salvage and materials recovery (6.5%) further contributed expertise on technical integration, market development, and policy innovation. Representation from health and facilities and academia (both 1.9%) rounds out an interdisciplinary perspective on the future of circularity in the built environment.

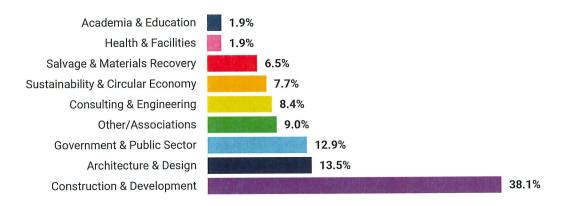


Figure 4: Stakeholder Participation by Sector

1.8 What interests you most about this workshop?

Stakeholder interest in the workshop focused on building knowledge and practical experience in circular demolition practices. The most selected topic was learning about deconstruction practices and opportunities (28%), followed by understanding how to integrate reclaimed materials into projects (27%). This matches earlier findings that 59.3% of respondents have not worked with reclaimed materials, pointing to the need for technical training and real-world examples. Interest in financial opportunities with reclaimed materials accounted for 24%, and networking with industry professionals received 21%. These priorities support the need to strengthen both knowledge-sharing and market infrastructure to advance material reuse.



Figure 5: What Stakeholders Want to Learn from the Workshop

1.9 What is your primary motivation for attending?

Stakeholder responses identified four main motivations for attending the workshop. The most common was gaining knowledge about sustainable practices (31%), followed by the desire to apply circular practices in their own projects (27%), interest in financial opportunities related to reclaimed materials (24%), and support for Richmond's circular initiatives (20%).

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This input reflects a shared interest in both learning and implementation. Stakeholders expressed a need for practical tools and guidance to move from awareness to action, particularly in applying deconstruction methods and integrating reclaimed materials into project workflows. Responses also highlighted the importance of financial feasibility, reinforcing previous feedback on incentives and cost-saving opportunities.

Support for Richmond's circular initiatives was identified as a key motivation, suggesting strong local buy-in and a willingness to collaborate as new policy measures are introduced. Overall, stakeholder input points to the need for programming that combines technical education with real-world application, including pilot projects, intersectoral collaboration, and continued engagement.

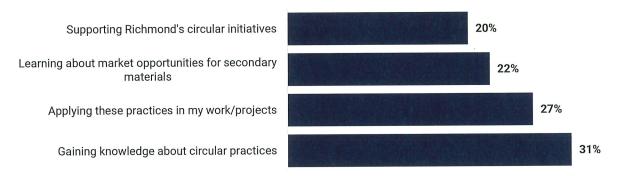


Figure 6: Stakeholders' Primary Motivation for Attending

1.10 From your sector's perspective, what actions can be taken to make material recovery and recycling effective for larger building types like industrial, commercial, institutional, and multifamily projects?



Figure 7: Actions to Scale Material Recovery in Larger Building Types

Stakeholders offered a range of actionable suggestions that reflect both immediate barriers and long-term opportunities for scaling circular practices in larger building types. The strongest areas of consensus point to the need for enabling infrastructure, regulatory clarity, and supportive planning practices. Their input helps shape a coordinated approach that builds from current efforts while identifying where targeted interventions can create the most impact.

1.10.1 Create and Support Accessible Material Storage and Marketplaces

Stakeholders repeatedly noted that one of the most significant barriers is the lack of material storage and exchange infrastructure. Several recommended establishing centralized laydown yards or regional hubs for salvaged materials, which would reduce pressure on constrained construction sites and allow for better material matching between projects. Suggestions also included building out live digital inventory platforms and enabling material reservation systems to address timing gaps between deconstruction and reuse. Importantly, the concept of banking materials based on popularity or reuse potential was raised as a way to balance convenience and supply chain certainty. Some respondents also emphasized the need to support non-profits and connect with commercial vendors, creating an inclusive material reuse ecosystem.

1.10.2 Provide Financial and Regulatory Incentives

Several responses highlighted the need to align financial signals with circular outcomes. Stakeholders proposed a range of tools: from grants and subsidies to tip fees that make disposal less attractive. Others emphasized density bonuses or FAR incentives during the development permit stage for projects that prioritize deconstruction or material reuse. Notably, there was strong support for making circular practices the economically viable default, with one respondent proposing that if a material is reusable "as-is," landfilling it should be prohibited or heavily penalized. These actions can correct the current cost imbalance between reuse and conventional demolition, especially for large-scale developments.

1.10.3 Embed Material Recovery into Permitting and Codes

Stakeholders expressed support for embedding circular principles within the development review and permitting processes. Several called for the integration of salvage and reuse requirements directly into demolition and building permits, supported by clear checklists and compliance tools. Others noted that enabling reuse through targeted changes to existing codes, particularly those related to structural materials, would remove common barriers. There was also a call to tie deconstruction and reuse verification to key approval stages, such as demolition permits and occupancy certifications, to improve accountability and tracking of diverted materials.

1.10.4 Improve Early Planning and Coordination

A consistent message across sectors was that planning for material recovery needs to happen much earlier in the project lifecycle. Stakeholders emphasized integrating deconstruction planning into the design phase, ideally as part of a broader Integrated Design Process (IDP). They proposed creating tools and prompts within early design documentation to help teams identify reuse potential and schedule accordingly. Some noted the importance of working with demolition contractors, recycling facilities, and consultants from the outset to anticipate logistics and availability. Others suggested using permitting timelines strategically—for instance, streamlining other approvals as an incentive when projects commit to deconstruction or salvage goals.

1.10.5 Build Knowledge, Tools, and Training

Stakeholders identified a pressing need for education and technical guidance. Suggestions included:

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- Toolkits and roadmaps to help project teams plan for salvage.
- Pre-demolition audit training to help identify valuable materials.
- Sector-specific professional development, especially for engineers and code officials unfamiliar with reused materials.

There was also interest in learning from case studies and pilots that demonstrate successful reuse in larger buildings, and in increasing visibility for professionals who specialize in these practices.

1.10.6 Target Material Categories or Specific Processes

Several responses offered material-specific strategies, such as targeting furniture for reuse, or prioritizing materials with high embodied carbon and costly disposal impacts. Others recommended partial deconstruction practices as an interim step toward full-scale implementation. These comments reflect a nuanced understanding that not all materials or building types can be approached the same way—and that strategies must evolve in tandem with market realities.

The stakeholders' perspectives clearly support a shift from voluntary uptake to integrated systems that make reuse practical, profitable, and standard in larger buildings. Their recommendations reinforce the value of:

- · Accessible infrastructure and logistics coordination;
- · Clear regulatory signals and financial incentives;
- Permitting mechanisms that prompt early planning;
- · Market development and education tools.

1.11 What opportunities or innovations could your sector explore to make reclaimed materials a regular part of construction projects? How can common practices, financial strategies, or collaborations support this shift?

1.11.1 Advancing the Integration of Reclaimed Materials in Construction Projects

Stakeholders identified a wide range of innovations and practical actions that could help normalize the use of reclaimed materials across construction sectors. Their responses reflect a recognition that market transformation requires more than individual project efforts—it needs policy signals, infrastructure, education, and coordination across supply chains.

1.11.2 Policy Tools to Incentivize Reuse

Several participants highlighted the potential to embed reuse into regulatory frameworks, specifically through:

- Permit-based incentives such as reducing or restructuring fees tied to material recovery.
- Minimum reuse requirements—for example, setting a baseline for salvaged wood inclusion in certain types of buildings.
- Caution was raised around density bonuses, noting risks when expectations set at the permitting stage aren't carried through at construction.

Stakeholders also questioned the current use of deposit-refund systems, suggesting that these might be re-evaluated to better align with material recovery outcomes and administrative efficiency for local governments.

1.11.3 Standardizing and Specifying Deconstruction Practices

Multiple responses pointed to the need for clear deconstruction standards that reflect material-specific handling. Without guidance on "means and methods," valuable materials can be damaged during demolition, undermining reuse potential. Clear specs and performance expectations could:

- Guide contractors toward material-sensitive dismantling.
- Help design teams plan for design-for-disassembly.
- Support specification writers in addressing reclaimed material integration in tenders.

1.11.4 Addressing Infrastructure and Supply Chain Gaps: The issue of reliable access to reclaimed materials was central to many responses. Stakeholders called for:

- Centralized or regional storage depots with organizational systems and pick-up options.
- An online marketplace with integrated logistics.
- "Availability banking" or repositories that track and share material inventories.
- Opportunities to store materials between deconstruction and reuse phases, particularly on the same site.
 - The lack of material consistency and availability is seen as a core challenge for scaling reuse across projects.

1.11.5 Enhancing Market Visibility and Public Awareness

There was strong support for education and marketing as critical tools for creating demand and normalizing reclaimed materials. Suggestions included:

- Public education campaigns that frame reuse as high-quality and financially viable.
- Integrating reuse narratives into real estate listings, similar to how Energy Star ratings are used today.
- Showcasing financial advantages and carbon reductions associated with reuse to shift perceptions.
 - Some also suggested rethinking tariff structures to reduce barriers for reused material trade or to encourage local sourcing.

1.11.6 Building Collaboration Across Silos: Stakeholders emphasized that effective reuse requires breaking down silos between disciplines. Specifically:

- Integrating architects, sustainability leads, and waste teams early in design to manage trade-offs and co-benefits.
- Building networks between restoration and construction communities.
- Encouraging material flow data sharing to improve collaboration between demolition and new build phases.
- This aligns with a broader push toward systems thinking in project delivery and circular material flows.

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1.11.7 Embedding Reuse in Education and Culture: A forward-looking theme in the responses focused on shaping future construction culture through:

- Incorporating reclaimed wood into shop classes and vocational programs.
- Embedding circular economy thinking in design and construction education.
- Supporting youth engagement and skilled trades in reclamation as a viable and creative career pathway.
- Stakeholders see cultural normalization of reuse as key to long-term change.

1.12 What specific updates to the demolition bylaw—such as expanding building types, increasing recycling targets, or prioritizing certain materials—would help improve material recovery while remaining feasible for your sector to implement?

Stakeholders provided practical, sector-informed ideas to improve material recovery while ensuring that new regulations remain feasible. Their responses reflect the need to balance ambition with market readiness and technical capacity, especially for larger building types. Several consistent themes emerged, indicating where policy updates would be most effective.

1.12.1 Shift Focus from Recycling to Salvage and Reuse

A dominant concern was the need to distinguish between recycling (often involving downcycling or mulching) and true reuse of materials. Stakeholders called for a clear hierarchy that:

- Prioritizes salvage and reuse over recycling and landfill diversion.
- Phases out practices like mulching old-growth wood or dimensional timber, which could be used structurally.
- Introduces material-specific requirements (e.g., reclaiming 6x6 timbers) to ensure high-value materials are preserved.

They suggested updates that verify salvage outcomes—such as requiring proof that materials were sent to certified vendors—and that definitions of "diversion" reflect reuse quality, not just volume.

1.12.2 Support and Standardize Deconstruction Practices

Respondents advocated for age-based or material-specific deconstruction requirements. Older buildings with high reuse potential could be prioritized for full or partial deconstruction, while others might focus on select material recovery. Key proposals included:

- Mandatory deconstruction based on building age or type.
- "Sustainable demolition" approaches, including modular dismantling.
- A phased deconstruction strategy that grows capacity and supply chains gradually.

Some also noted the importance of linking deconstruction efforts with functional markets, so that reuse obligations don't exceed what the industry can absorb.

1.12.3 Phase In Requirements to Match Market Maturity

Several stakeholders proposed a stepwise approach to implementing new requirements. This echoes the logic of BC's Step Code:

- Start with selected materials or building types, then expand over time.
- Let the market scale in parallel with policy, avoiding premature strain on supply and demand.
- Consider staggered incentives based on recovery levels (e.g., 50%, 60%, 75% targets).

This incremental strategy was seen as both practical and effective for nurturing a reuse ecosystem.

1.12.4 Use Incentives, Fees, and Enforcement to Shift Behaviour

While recognizing the limits of voluntary adoption, stakeholders suggested both supportive and punitive tools:

- **Incentives:** Expedited permitting, reduced development cost charges (DCCs), and permit fee reductions for projects using reclaimed materials.
- Penalties: Steep, escalating tipping fees for disposal, especially of reusable materials.
- **Enforcement:** More bylaw staff and verification mechanisms to ensure compliance with recovery and reuse targets.

These tools are intended to create clear economic and operational signals that prioritize circular outcomes.

1.12.5 Expand Scope by Building Type and Material Prioritization

There was support for expanding the bylaw's scope beyond single-family dwellings to include:

- Institutional, commercial, and multifamily buildings.
- Targeted building types where full deconstruction is financially viable.
- Differentiated requirements depending on material value and salvageability (e.g., healthcare projects or commercial fitouts).

Stakeholders emphasized that aligning regulations with actual material streams will improve feasibility and uptake.

1.12.6 Improve Guidance, Tools, and Coordination

Several respondents noted a lack of clear tools to help industry professionals meet bylaw requirements. Suggestions included:

- A network of consultants, similar to how energy advisors support Step Code compliance.
- Clearer guidelines and checklists for builders and homeowners.
- Shared resources across municipalities to reduce duplication and promote regional alignment.

Stakeholders also noted that updates to allow reclaimed materials in new builds should be formalized, helping normalize reuse through permitting and inspections.

1.12.7 Enable Market Readiness and Policy Alignment

- Better coordination across levels of government—municipal, provincial, and federal.
- Regional consistency in bylaws to support cross-border reuse and reduce confusion.
- Support for international markets, particularly in border regions where reclaimed materials may flow between jurisdictions.
- Some even suggested exploring extended producer responsibility within infill and densification projects.
- Stakeholders are ready to move beyond recycling and embrace reuse-focused policy—if accompanied by support tools, phase-in timelines, and market development.
- There is strong support for mandatory deconstruction, especially when tied to material value, building type, and age.
- Implementation should include a mix of incentives and enforcement, with capacity-building support for smaller operators and homeowners.
- Many proposals mirror the successful structure of the Step Code: phased implementation, clear metrics, and outcome tracking.

1.13 What skills, innovations, or collaborations within your sector are needed to challenge the status quo and move beyond business-as-usual practices?

1.13.1 Tools and education

Participants emphasized the need for professional education, training, and clearer guidelines to normalize circular practices. Suggestions included education campaigns, architectural and engineering training focused on existing buildings, and improved resources to guide the use of salvaged materials in design specifications. Respondents mentioned programs similar to BC's Step Code as a model for developing technical guidance and aligning industry understanding. There was interest in short-form learning tools as well—such as educational videos on reclaimed material life cycles and "how-to" content for designing with reused components. Public education was also noted as essential to shifting attitudes toward waste and material value, especially when it comes to overcoming stigma around used components. Additionally, some suggested integrating circular design principles, like design for disassembly, directly into core curricula for engineers and designers.

Marketing was described as an underused tool, with stakeholders proposing dedicated budgets to promote the benefits and quality of the secondary materials market.

1.13.2 Policy and regulatory alignment

Stakeholders highlighted the need for policy changes that encourage and recognize circular practices. This included developing legislation that supports reuse across jurisdictions, credits for integrating reclaimed materials into specifications, and better alignment between energy, carbon, and material recovery policies. Examples of promising initiatives were noted at the federal level, including Environment and Climate Change Canada's efforts to promote circularity in the wood sector. Respondents also recommended supporting policies that enable donation of entire buildings—like tax credits for relocated homes—as a strategy for improving housing availability and preserving materials. Some called for ownership models that require accountability across a building's full life cycle, especially for institutional and investment properties. Others stressed the importance of clear distinctions between recovering material and recovering function—encouraging regulations that prioritize service recovery and long-term reuse.

1.13.3 Innovation and technology

There was strong interest in technologies that improve the efficiency and scalability of material recovery. Several respondents referenced Urban Machine, an Al-powered wood denailer already operating in the US, as an example of innovation that could improve material preparation. Stakeholders also noted that innovation goes beyond machinery—suggesting that different construction and ownership models could unlock more reuse opportunities. For example, they proposed economic incentives tied not only to current reuse but also to future recoverability at a project's end-of-life. The importance of using technology to support ease of access was raised, particularly for creating simple material-sharing platforms or centralized data repositories.

1.13.4 Communication and collaboration

Multiple responses focused on the need to break down silos between project teams and support a more coordinated approach. Architects, engineers, waste haulers, contractors, and insurers were all cited as actors who must work together to integrate reclaimed materials successfully. Some called for insurance providers and warranty authorities to be more involved in circular material discussions, particularly when reused materials are applied to structural systems. Others emphasized the role of designated professionals, such as pre-demolition assessment specialists, who can identify and recommend salvageable materials in a way that supports safe and efficient reuse planning. These roles could help reduce perceived risks and standardize decision-making across the industry. Developing shared understanding and risk frameworks was seen as a path to reducing case-by-case reinvention and advancing sectorwide alignment.

1.13.5 Storage, resale, and marketplace development

Respondents noted the importance of having functional spaces and platforms for circulating reclaimed materials. Suggestions included better storage infrastructure to maintain and improve material quality, urban marketplaces for used goods, and simple "one-click" solutions to share available items. Comments reflected the idea that a healthy secondary market requires both scale and trust. Participants also saw potential in cross-sector reuse, like hotel refurbishments, furniture recovery, and creating dedicated product categories for previously used materials. Some noted that sharing platforms must be paired with warehousing or pickup services to ensure reliability and reduce transaction complexity.

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1.13.6 Market development and value

Many emphasized the need to build an economy of scale that legitimizes reused materials within mainstream supply chains. Several comments focused on demonstrating the value of reclaimed components by quantifying cost savings, embodied carbon reductions, and product performance. Stakeholders recommended developing new secondary markets, such as resale networks for hotel retrofits, as well as broadening the refurbishment economy for items like furniture and appliances. Depreciation and resale value were also raised as important considerations, suggesting the need for better financial modeling to inform reuse decisions.

1.13.7 Incentives

Stakeholders saw potential in economic tools that reward material reuse and design for recovery. These included direct credits for current reuse, as well as deferred incentives for components designed to be reclaimed at a future project's end-of-life. Some comments suggested including reuse credits in development processes or creating formal economic recognition for design strategies that support disassembly. There was support for integrating incentives into procurement and project evaluation, linking financial savings with environmental performance.

1.14 Conclusions on Stakeholder Feedback Re: to the Proposed Bylaw Update

1.14.1 Strong Support for Expanding the Scope of the Bylaw

Stakeholders broadly supported including multifamily, commercial, institutional, and industrial buildings under the updated bylaw, especially if requirements are phased in and prioritized by material type or building age. Many responses suggested that larger building types hold greater potential for recovery but also demand more tailored approaches based on space, complexity, and market readiness.

1.14.2 Clear Preference for Salvage and Reuse Over Recycling

Feedback revealed a strong preference to prioritize deconstruction and material reuse, rather than simply increasing diversion rates through recycling or downcycling (e.g., mulching wood). Many emphasized that recycling should not be equated with circularity, and that reuse must be more strongly incentivized and normalized, including through clarified definitions, specifications, and targets.

1.14.3 Need for Clear Guidelines, Professional Support, and Market Infrastructure

While there is general alignment with the direction of the bylaw, many stakeholders—particularly smaller builders, architects, and contractors—indicated the need for:

- Technical guidelines.
- Professional training and education, including integration into university programs and industry certifications.
- A network of consultants or material specialists to assess salvage potential and quide reuse.
- Marketplace infrastructure, such as centralized depots and digital platforms, to manage material supply and demand.

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1.14.4 Incentives and Enforcement Are Both Needed

Many saw the need for a balanced approach: combining stronger enforcement (e.g., clear penalties and verification processes) with well-designed incentives, such as:

- Expedited permitting.
- Lower tipping fees for reusable materials.
- Development cost charge reductions based on recovery volume.
- Permit fee reductions for use of reclaimed materials.

1.14.5 Phasing and Flexibility Are Key for Feasibility

The proposed staged increase in diversion rates and the phased inclusion of additional building types are well supported by stakeholders, especially if they are paired with:

- · Clear timelines.
- Market readiness assessments.
- Pilot projects that demonstrate success and build capacity.

1.14.6 Opportunities to Strengthen Equity and Local Supply Chains

Some feedback touched on equity-based opportunities, such as connecting reclaimed materials to local fabricators, trades programs, and First Nations communities. Others emphasized the importance of building local and regional circular markets, reducing dependency on long-haul transport and building resilient supply chains.

The stakeholder feedback affirms the proposed bylaw updates are directionally sound and enjoy broad conceptual support across sectors. However, successful implementation will depend on:

- How well the City supports capacity-building and market development.
- The degree to which reuse (not just recycling) is embedded in definitions and targets.
- The flexibility built into the bylaw to adapt to market maturity, especially for large and complex buildings.

2. Builder Feedback Summary - Interview Activity

Builders emphasized the need for a national standard that benchmarks material and carbon intensity, including requirements for durability, recyclability, and design for disassembly. There was strong support for prioritizing deconstruction and relocation over demolition, with calls for specific guidance such as a Canadian version of a Design for Disassembly (DfD) guide. Participants highlighted alternative low-carbon materials (e.g., timber, rammed earth, straw bale) and advocated for material passports embedded in BIM systems to support lifecycle tracking and circularity in the design phase.

Other themes included:

- Minimum lifecycle and durability requirements in building codes.
- Integration of circularity key performance indicators (KPIs) beyond carbon, such as ozone depletion.

- Deconstruction training and early strategy development for each project.
- Alignment of building design life with material service life to improve sustainability assessments.
- Collecting better data on construction waste generation and current disposal pathways.

2.1 Market Mechanisms

Builders suggested that standardization and transparency in product performance—especially for reused materials—would support market adoption. They recommended:

- Mandatory circularity statements.
- Public-private innovation labs.
- Government funding and procurement policies prioritizing low-carbon, reused materials.
- Digital platforms and showrooms for salvaged materials.
- Fast-track approval pathways for innovative circular solutions.
- EPR (Extended Producer Responsibility) and on-site material regrading for reuse.

A key theme was ensuring the economic viability of circular practices by matching supply and demand and aligning financial incentives to promote reuse over disposal.

Participants called for:

- Landfill bans on common construction materials like clean wood and concrete.
- Incorporating circularity into building codes, including reuse, renovation, and deconstruction requirements.
- Metrics and performance-based standards for recycled and low-carbon materials.
- Stronger Life Cycle Inventory (LCI) databases to capture regional circularity practices.
- Policy frameworks mandating assessment of buildings slated for removal to prioritize reuse or relocation.

Builders stressed that policy must be grounded in real-world data and support a mix of prescriptive and performance-based approaches to maintain innovation while ensuring compliance. There was a shared view that economic instruments, such as tax incentives and adjusted landfill fees, are critical to shift the cost-benefit balance in favour of circular construction.

3. Regional Policy and Program Initiatives in Support of Material Recovery

Environment and Climate Change Canada (ECCC) has identified construction, renovation, and demolition waste as a key area for advancing Canada's circular economy goals. In 2024, ECCC hosted a national workshop to explore the circularity of wood in the construction, renovation, and demolition sector, highlighting the economic and environmental impacts of landfilled wood and the opportunity to recover materials for higher value uses. Key federal roles identified include supporting regional material flow analysis, national waste characterization

studies, and policy development informed by robust data. ECCC is also encouraging the development of codes and standards, funding innovation, applied research, pilot projects, and supporting capacity-building across the value chain. Priority actions include aligning policies across jurisdictions, increasing supply and demand for recovered materials, and improving infrastructure for storage, processing, and resale.

In April 2023, Environment and Climate Change Canada released a national study titled Economic & Environmental Assessment of Waste Diversion in Canada's Construction & Demolition Sector, developed by The Delphi Group and Dillon Consulting. The study provides the most comprehensive snapshot to date of construction, renovation, and demolition waste flows in Canada, focusing on four high-impact materials: wood, gypsum, metals, and concrete.

Nationally, the diversion rate for construction, renovation, and demolition waste stood at just 44% in 2020. The study modeled three scenarios and found that achieving a 90% diversion rate by 2030 could generate \$457.7 million in GDP and 3,332 jobs, compared to just \$108.2 million and 788 jobs under a business-as-usual scenario. Avoided greenhouse gas emissions would also grow dramatically, particularly for wood (from 1.2 million to 5.2 million tonnes CO₂e) and metal (from 447,649 to 1.8 million tonnes CO₂e).

The report highlights large untapped economic and environmental value in diverting construction, renovation, and demolition waste through improved infrastructure, clearer regulatory signals, and more consistent material recovery strategies nationwide. It identifies significant regional gaps and calls for coordinated federal action to support circular practices in the building sector.

In February 2024, Environment and Climate Change Canada (ECCC), through its Waste Reduction and Management Division, hosted a national workshop in Ottawa to address the growing challenge of wood waste from construction, renovation, and demolition activities. The event brought together over 40 stakeholders—including municipalities, non-profits, industry leaders, and federal departments—to explore barriers and opportunities to keep wood in circulation and out of Canadian landfills.

Canada generates an estimated 4 million tonnes of construction, renovation, and demolition waste annually, much of it is wood. The workshop emphasized that most of this wood is currently landfilled due to a lack of incentives, infrastructure, and markets for recovery and reuse.

At the same time, construction, renovation, and demolition wood is increasingly recognized as a valuable resource—one that could contribute to Canada's circular economy, reduce emissions from landfilling, and support local jobs.

Participants identified three main areas for federal leadership:

- 1. **Policy development** based on robust data, including national waste characterizations and regional material flow analyses;
- 2. **Financial support** for applied research, demonstration projects, and regional material exchanges;

3. **Convening power** to support stakeholder coordination, build consistent language around circularity, and scale successful local initiatives nationally.

The report outlines a suite of next steps, including supporting recovery infrastructure, updating building codes to allow use of certified salvaged wood, and incentivizing deconstruction over demolition. Federal roles suggested offering tax credits, funding pilot projects, and engaging with the National Model Building Code process to integrate circular practices.

The workshop highlighted that enabling wood circularity requires a shift in mindset across the sector—from treating materials as waste to recognizing their embedded value. Without such a shift, Canada risks missing economic, environmental, and climate opportunities tied to keeping construction, renovation, and demolition wood in use.

Metro Vancouver, in collaboration with member municipalities and Light House, is organizing a Construction and Demolition Waste Reduction Forum in spring 2025 to explore strategies such as house relocation, deconstruction, and material salvage. The initiative is supported by a federal Research and Knowledge Initiative (RKI) grant and includes financial, and staff support from Metro Vancouver. Metro Vancouver is advancing regional efforts to reduce construction, renovation, and demolition waste through a combination of research, industry collaboration, policy development, and capacity-building initiatives, including the following actions:

- Construction and Demolition Waste Reduction Forum: Scheduled for Spring 2025, this
 forum will convene local governments and industry stakeholders to share practices and
 explore policy tools to reduce construction, renovation, and demolition construction,
 renovation, and demolition waste. Topics will include house relocation, adaptive reuse,
 and deconstruction. The event will be delivered in partnership with Light House,
 supported by the Research and Knowledge Initiative (RKI) federal grant.
- Toolkits and Resources: Metro Vancouver published the Construction and Demolition
 Waste Reduction and Recycling Toolkit (2023), which provides technical guidance on
 hazardous materials, recycling infrastructure, municipal bylaw requirements, and
 alternative practices such as deconstruction and house moving. The Toolkit supports
 municipalities, builders, and contractors in complying with local diversion regulations
 and optimizing recovery of valuable materials.
- Case Studies and Cost Comparisons: Local examples illustrate the economic and environmental benefits of alternatives to demolition.

DECONSTRUCTION CASE STUDIES

Case Study — Riley Park

Unbuilders launched in 2018 and disassemble structures mostly by hand, diverting around 50 tonnes of building materials per house, from which 15 tonnes are salvaged for reuse.

Building type: Single-Family House

Square footage: 1,760 **Location:** City of Vancouver

This Vancouver house, built in 1910, was located in Riley Park at the City's highest point topographically. Unbuilders became involved with this home in 2018 when it was slated for demolition.

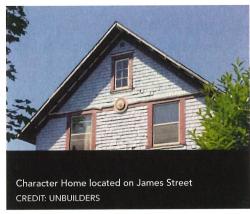
Unbuilders donated many of the materials to Habitat for Humanity, a non-profit organization. Some of the salvaged lumber was reused in the Welcome Parlour ice cream shop in North Vancouver.

Total Waste Diversion

Approximately 92% of building materials were saved from disposal through reuse and recycling.



17.9 tonnes
• Concrete: 43.3 tonnes





Cost Comparison

	DECONSTRUCTION	DEMOLITION
House removal	\$34,800	\$26,000
Tax credit – donation of salvaged material ⁸	-\$22,600	\$0
Total cost	\$12,200	\$26,000

8 Exact tax credit value based on income of person claiming the tax credit (typically 44-50%)

DECONSTRUCTION CASE STUDIES

Case Study — Dunbar

Building type: Single-Family House

Square footage: 1,288 Location: City of Vancouver

This Vancouver house was originally built in 1930 in the Dunbar neighborhood. Unbuilders was hired to fully deconstruct this house in 2019.

Reclaimed lumber from this project was sold to Western Reclaimed and Heritage Lumber.

Recovered shiplap was sold to Woodshop Coop and was used as cladding in Parlour restaurant in Toronto, a refurbished 1894 piano factory.

Lumber sales helped the owner offset the overall cost of deconstruction, making it comparable to traditional demolition.

Total Waste Diversion

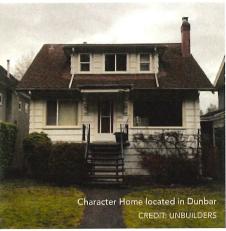
Approximately 99% of building materials were saved from disposal through reuse and recycling.



- Appliances, doors, casings, trimms, baseboards
- Flooring: 0.2 tonnes
- Lumber: 5.3 tonnes



- Plaster: 3.1 tonnes
- · Lumber, metal, asphalt: 14.2 tonnes
- Concrete: 39.5 tonnes





Cost Comparison

	DECONSTRUCTION	DEMOLITION
House removal	\$34,990	\$21,000 to \$27,000
Lumber sale	-\$6,000	\$0
Total cost	\$28,990	\$21,000 to \$27,000

HOME MOVING CASE STUDY

Case Study — Kerrisdale

Nickel Bros House Moving moves approximately 150 homes within the Pacific Northwest (Canada and U.S.) per year.

Building type: Single-Family House

Square footage: 2,400 Location: City of Vancouver

This tudor-style home was built alongside its twin in 1931. Named the "Twin Dorothies," the homes were named after the wives' of the original developers. It was scheduled for demolition in 2013 to make room for two new 4,500 sq. ft. homes. Neighboring residents raised concerns with this choice and led to the developer to choose to relocate the buildings rather than demolishing them. The homes were moved to a new site, and the developer used the Heritage Revitalization Program to create a new project that used the Dorothies to build a new townhouse unit and garden suite below.

Total Waste Diversion

A total of 111 tonnes of building materials were saved from disposal.

Cost Comparison

	HOUSE MOVING	DEMOLITION
House removal	\$5,000	\$18,050
Abatement	\$2,642	\$15,000
City of Vancouver waste compliance fee ⁹	\$350	\$350
Hauling fees	\$0	\$300
Total cost	\$7,992	\$33,700

New Construction Cost Savings

Cost	\$155,00010	\$220,000- \$550,000 ¹¹
Total savings	\$65,000 - \$395	5,000





REUSED

TONNES (House)

- · Wood: 25 tonnes
- Mixed C&D: 29 tonnes



RECYCLED

TONNES (Foundation)

Concrete

- City of Vancouver, Demolition Permit with Recycling Requirements
- Cost to relocate this home onto property, build foundation / basement (unfinished, increasing home size to 2000 sq. ft.), set up utilities, etc. (not including purchase of lot)
- 11 Cost to build new: \$200 \$500 per sq. ft. x 1100 sq. ft. (not including purchase of lot)

Circular Economy Leadership Canada (CELC) – Government-to-Government Policy Alignment for Circular Economy

The Government-to-Government (G2G) Circular Economy Policy Incubator is a national initiative led by Circular Economy Leadership Canada (CELC) that brings together representatives from all levels of government to align and coordinate circular economy policies, measurement tools, and regulatory approaches across jurisdictions. Through its Government-to-Government Circular Economy Policy Incubator, CELC is facilitating cross-jurisdictional alignment of circular economy policies, including efforts directly relevant to construction, renovation, and demolition material recovery. The initiative is developing a national inventory of CE policies, shared measurement frameworks for environmental and economic impacts—including for the built environment—and strategies for harmonizing standards across federal, provincial, and local governments. These efforts provide critical context for Richmond's bylaw update, reinforcing the importance of shared definitions, coordinated policy development, and consistent measurement practices to support material reuse and diversion across jurisdictions.

Circular Construction Innovation Hub (CCIH) – National Coordination Supporting Circular Practices in Demolition

Led by Circular Economy Leadership Canada (CELC), the Circular Construction Innovation Hub (CCIH) is a multi-stakeholder initiative launched in fall 2024 to accelerate the adoption of circular practices across Canada's construction and real estate sector. The Hub supports local and regional governments, including Richmond, through a shared national platform for knowledge sharing, demonstration projects, and policy development aligned with the CSA–CELC Strategic Framework for Action. CCIH activities are structured around three initial work streams relevant to the Richmond context: (1) adaptive design and circular construction of new buildings, (2) circular strategies for existing buildings, and (3) deconstruction and material reuse. Participants are contributing to this initiative through pilot projects and policy exploration, and benefitting from shared resources, technical committees (e.g., on policy, standards, and financing), and guidance on circular material flows. These efforts directly support Richmond's updated demolition bylaw and its emphasis on deconstruction, salvage, and reuse to preserve material value and reduce construction waste. CCIH's phased implementation, beginning with pilot projects in 2025, creates opportunities to inform and align with emerging best practices, funding strategies, and policy models across Canada.

National Standard Review on Building Deconstruction by the Canadian Standards Association
The Canadian Standards Association is currently reviewing its national standard Deconstruction
of Buildings and Their Buleted Borto (CCA 7702:12) to determine its continued relevance and

of Buildings and Their Related Parts (CSA Z783:12) to determine its continued relevance and potential for supporting current and emerging deconstruction practices. As part of this effort, CSA is gathering feedback from municipal staff, practitioners, and policy specialists to evaluate the usefulness of the standard, identify any content gaps, and assess whether support tools—such as checklists, templates, or user guidance—are needed to improve implementation. Particular focus is being placed on how different users (e.g., contractors, regulators, and procurement officials) may interpret or apply the standard, and whether it adequately reflects evolving practices such as circular demolition, salvage planning, and material reuse. This initiative supports broader policy developments, such as those proposed in Richmond's bylaw update, which emphasizes deconstruction and salvage as preferred strategies for material recovery.

National Standard Development for Circular Built Environment Terminology

The Canadian Standards Association (CSA) is leading the development of a new national standard to define key concepts and terminology related to the circular built environment (CBE), with direct implications for construction, renovation, and deconstruction practices. This standard aims to clarify how circularity intersects with existing sustainability priorities by outlining the systems, technologies, business models, and skill sets needed to support circular transitions in the built environment. The current draft includes references to related international frameworks such as ISO 59004 (Circular Economy – Vocabulary, Principles and Implementation Guidance) and builds on approaches including life cycle assessment and Cradle to Cradle certification. Participants—including municipalities, architects, industry professionals, and researchers—are contributing structured feedback on content gaps and practical usability. The initiative seeks to ensure that emerging circular practices such as deconstruction, adaptive reuse, and materials recovery are supported by consistent national guidance and vocabulary.

Demolition Bylaw Comparison Table: Key Features and Practices Across Jurisdictions

The table below presents key findings from a 2024 research study conducted by UBC's School of Community and Regional Planning to support the City of Richmond's engagement program in identifying opportunities to update the Demolition Waste and Recyclable Materials Bylaw No. 9516. It compares demolition bylaw requirements across 13 municipalities, focusing on diversion targets, fees, and salvage provisions.

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Table 1: Key features of demolition bylaws and related policies in selected Canadian jurisdictions to inform Richmond's Bylaw No. 9516 update

Municipality	Policy Type	Building	Minimum Requirement	Non-refundable Fees	Enforcement Mechanism- Refundable Fees
City of Richmond	Bylaw - Recycling	One-family, two-family dwellings and accessory buildings	70% total	\$288.00	\$3.25/sq. feet
City of Burnaby	Bylaw - Recycling	All buildings (residential and commercial)	70% total	\$250.00	\$2.25/sq. feet (max \$50,000)
City of New Westminster	Bylaw - Recycling	Single-family and duplex	70% total	\$277.00	\$5,000
City of Surrey	Bylaw - Recycling	All buildings (residential and commercial)	70% total	\$250.00	\$5,000
District of Squamish	Bylaw - Recycling	All buildings (residential and commercial)	80% total		\$20.00/square metre
City of Port Moody	Bylaw - Recycling	All buildings (residential and commercial)	100% wood, 85% all other materials	Proportional to sq. footage: 0 - 2,000=\$235.00, 2,001 - 5,000=\$250.00, 5,001 - 20,000=\$351.00, over 20,000=\$920.00	By sq. footage: • 0 - 2,000 = \$845.00, • 2,001 - 5,000 = \$1,910.00, • 5,001- 20,000=\$5,085.00, • over 20,000=\$9,880.00
District of North Vancouver	Bylaw - Salvage	Pre-1950s	3.5kg or 2.6 board feet per sq. foot	\$262.50	\$15,000
City of Victoria	Bylaw - Salvage	Pre-1950s	40kg per sq. metre	\$500	\$19,500
City of Vancouver	Bylaw - Recycling and Salvage	Pre-1950s, pre-1910	75%, 90%, 3 tonnes of wood	\$436	\$14,650
City of North Vancouver	Recycling Plan Only				
City of Coquitlam	Recycling Plan Only				
District of West Vancouver	Recycling Plan Only				
City of Guelph	Guidelines Only	Pre-1950s			