

Leading jurisdictions in C&D waste prevention and reduction

Jurisdiction	Policy/Initiative	Description
City of Seattle, USA	Mandated material reuse and recycling in deconstruction permits Seattle SDCI Tip #337 - Demolition and Deconstruction	Deconstruction and salvage assessment (Seattle Permits, Department of Constructions and Inspections)
Portland, Oregon, USA	Adopted a deconstruction ordinance , for residential homes Deconstruction requirements Portland.gov	Requires that residential homes built in or before 1940 be deconstructed rather than demolished
Netherlands, EU	Beton Akkoord (concrete agreement) initiative for sustainable concrete Samen maken we de betonsector duurzamer - Betonakkoord	Fifty construction companies signed an agreement to promote circularity and emission reduction throughout the concrete supply chain
	SAWA and the use of cross-laminated timber	Circular construction in Rotterdam includes SAWA projected that focuses on the use of cross-laminated timber instead of concrete.
Germany, EU	Concular – Digital database for construction material reuse Concular - Circular Construction	<ul style="list-style-type: none"> • AI driven platform for the construction industry that automatically matches buyer's demand for construction material with suppliers of reuse material. • Fast, automated, and cost-efficient model • Decision making aids for LCA and economic efficiency • Evaluate the material while it is still installed: solves the cost and space problems • Uses material passport
City of San Francisco, USA	San Francisco's C&D Waste Management interventions Construction and demolition registered facilities San Francisco Environment Department (SFE) (sfenvironment.org) City of San Francisco Recycling Center (wastetracking.com) Bay Area Reuse Marketplace - Rheaply	<ul style="list-style-type: none"> • C&D Debris Recovery Ordinance • Cloud-based demolition debris management plan system • San Francisco introduced third party verification of the self-reported recycling rates by receiving facilities • Deconstruction and reuse policy with mandatory procurement from the secondary market (20% of five material categories or 100% of one category)

		<ul style="list-style-type: none"> • Deconstruction survey before issuing building permit • Virtual marketplace platform - public marketplace for businesses; asset management for those large inventory holders for their stock (BAMB)
EU (7 countries)	<p>Material passports - BAMB</p> <p>BAMB - Buildings As Material Banks (BAMB2020) - BAMB</p>	<p>In the Project BAMB – Buildings As Material Banks 15 partners from 7 European countries were working together with one mission – enabling a systemic shift in the building sector by creating circular solutions.</p>
City of Amsterdam, EU	<p>Material passports for circular buildings</p> <p>AMSTERDAM METROPOLITAN AREA USES MATERIAL PASSPORTS TO BOOST THE CIRCULAR ECONOMY IN THE REGION - Madaster Global</p>	<ul style="list-style-type: none"> • Madaster Pilot project, a passport for one of the municipalities’ buildings • Madaster would be an online library of buildings information: quality, origin, location, and dismantling options of various building parts • Inventory the existing real estate owned by municipalities
City of Houston, USA	<p>Initiative to distribute waste construction materials</p> <p>Reuse Warehouse (houstontx.gov)</p>	<p>Reuse Warehouse accepts construction waste material and distributes that for free to non-profit organizations, schools, government, etc. As a reuse case, they renovated a nearby building to provide space for reused materials workshop, gallery, and meetings.</p>

Construction and demolition waste management regulatory landscape

Jurisdiction	Policy	Description
Municipal	Waste management plan	Mandatory plans to be prepared by the developer/general contractor describing strategies for management of C&D waste.
	Municipal C&D bylaws	Municipal waste management bylaws tied to the building regulatory process
	Deconstruction and salvage standards	Deconstruction and wood salvage requirements. Guidelines for deconstruction process.
	Pilot and demonstration projects	Investment in innovation for public sector projects
	Demolition and building permits with recycling/deconstruction requirements	Deposit refund based on waste reduction or recycling target.
	Zoning bylaws	Regulation of land use, such as: <ul style="list-style-type: none"> • types of land use allowed • location of a building within a site • maximum height and size of a building
	Building inspections	Ensure builders comply with regulations and standards to protect users safety and verify quality construction
Regional	Disposal ban	Clean wood and used and new gypsum at regional solid waste facilities
	Licensing of private facilities	Permits and licenses for landfill operators and processing facilities.
	Pilot and demonstration projects	Investment in innovation for public sector projects (e.g. house moving storage at Coquitlam Landfill).
Provincial	Building codes and requirements	Technical specifications and provisions that influence the design and construction of new structures as well as the alteration, change of use and demolition of existing ones.
	Tax credits/receipts	Incentives for donating used materials
	Funding	Clean BC Plastic Action fund for construction plastic waste reduction (also all sectors) Economic development funding Manufacturing and job creation funding.
	Pilot and demonstration projects	Investment in innovation for public sector projects
Federal	Product certification and labels	Product certification and labelling schemes - Innovation, Science and Economic Development Canada (ISED) Certification & Engineering Bureau (CEB) and the Directorate of Regulatory Standards (DRS)

	Tax credits/receipts	Incentives for donating used materials
	Funding	Economic development funding NRCAN funding
	Pilot and demonstration projects	Investment in innovation for public sector projects
	Greening government directive	Supports greening of government operations to achieve net-zero climate goals. Includes directive for Buy and Sell Canada to adopt lower waste and lower carbon procurement practices
	National Building Code	Applies to property under federal jurisdiction
Independent certification organizations (e.g. Cement Association of Canada)	Environmental Product Declaration (EPD)	Independently verified and registered document that communicates transparent and comparable information about the life cycle environmental impact of a product.
Canadian Standards Association (CSA) or Underwriters Laboratories (UL)	Product certification in Canada	Certification is voluntary and guarantees that the product complies with all safety standards that apply in Canadian territory