



CITY OF
**PALO
ALTO**

City Council Staff Report

From: City Manager

Report Type: INFORMATION REPORTS

Lead Department: Public Works

Meeting Date: May 6, 2024

Report #:2312-2377

TITLE

Update on the Deconstruction and Construction Materials Management Ordinance (Ordinance 5472, Palo Alto Municipal Code Title 5, Chapter 5.24); CEQA Status – Not a Project

RECOMMENDATION

This is an informational report only and no Council action is required.

BACKGROUND

In August 2018, Council accepted the 2018 Zero Waste Plan.¹ The plan contained 48 initiatives to help the City meet its sustainability and climate action goals. In June 2019, Council approved the Deconstruction and Construction Materials Management Ordinance² (Deconstruction Ordinance, Ordinance 5472/ PAMC Title 5, Chapter 5.24,) with the effective date of July 1, 2020. The ordinance implements the following key initiatives of the 2018 Zero Waste Plan:

- Initiative #1, Require Deconstruction and Source Separation of Construction Materials
- Initiative #2, Direct Mixed Construction Materials to High Diversion Construction Materials Recycling Facilities
- Initiative #4, Construction Project Recycling Technical Assistance

In addition, implementing and expanding the Deconstruction Ordinance is a key action identified in the Sustainability and Climate Action Plan Goals and Key Actions accepted by Council in October 2022.²

The Deconstruction Ordinance applies to all residential and commercial projects undergoing a whole structure demolition and requiring a deconstruction permit on or after July 1, 2020. The objectives of the ordinance are to 1) increase salvage/reuse to the highest extent possible and

¹ 2018 Zero Waste Plan <https://www.cityofpaloalto.org/files/assets/public/v/1/zero-waste/zero-waste-website-files/2018-zero-waste-plan.pdf>

² City Council, September 27, 2022; Agenda Item #10; SR #14606
<https://www.cityofpaloalto.org/files/assets/public/v/1/agendas-minutes-reports/reports/city-manager-reports-cmrs/2022/id.-14606-scrap-update-reach-code-changes-and-advanced-hpwh-program.pdf>

2) increase the amount and quality of recyclable materials from all construction and demolition projects, beginning with whole structure deconstruction projects.

Palo Alto's Deconstruction Ordinance is the first of its kind in the United States that covers all commercial and residential projects undergoing whole structure removal regardless of the age of the buildings. Although some deconstruction projects occurred voluntarily in the City prior to the ordinance, the requirements and process were new to most permit applicants and contractors. During the development of the ordinance, staff estimated based on historical data that the ordinance would affect approximately 114 projects annually (100 residential and 14 commercial). Staff developed outreach and education materials explaining the ordinance requirements which were made available and sent to stakeholders prior to the ordinance effective date on July 1, 2020.

Staff presented previous years' implementation updates to City Council for Fiscal Year 2021³ and for Fiscal Year 2022.⁴

ANALYSIS

Staff continues to conduct outreach and educate homeowners, general contractors, and architects when building permit applications are submitted to provide information on the ordinance requirements. Staff proactively schedules video conference calls to explain the ordinance and answer questions from the applicants and their contractors. When the deconstruction permits are issued, staff reaches out again to meet the general contractors and subcontractors hired for deconstruction onsite to review the requirements, walk through the property together, and ensure expectations are communicated. During deconstruction, staff inspects each project site multiple times to document progress, reiterates requirements for source separation and hauling of single stream materials, and addresses any concerns observed.

The City's Development Center received 78 building permit applications for projects that involved whole structure demolition (65 residential and 13 commercial) covered under the Deconstruction Ordinance in Fiscal Year 2023, and received 74 permit applications in Fiscal Year 2022 (74 residential and 0 commercial). As summarized in Graph 1, there were 78 building permit applications in Fiscal Year 2023, the City issued 44 deconstruction permits (42 residential and 2 commercial), and 41 buildings were removed (40 residential and 1 commercial). This is a decrease from Fiscal Year 2022 when the City issued 60 deconstruction permits and 57 buildings were removed (55 residential and 2 commercial). Staff expects the number of building permit applications to increase in Fiscal Year 2024 based on the increased number of permit

³ City Council, January 24, 2022; Agenda Item #16; SR #13782
<https://www.cityofpaloalto.org/files/assets/public/v/1/agendas-minutes-reports/reports/city-manager-reports-cmrs/2022/id.-13782-deconstruction-ordinance-implementation-update.pdf>

⁴ City Council, December 19, 2022; Agenda Item #23; SR #14836
<https://www.cityofpaloalto.org/files/assets/public/v/1/cmr-14836.pdf>

applications already submitted, and the economy’s and development industry’s continued trajectory to recovery.

Graph 1: Fiscal Year 2023 Deconstruction Permit Application and Project Status

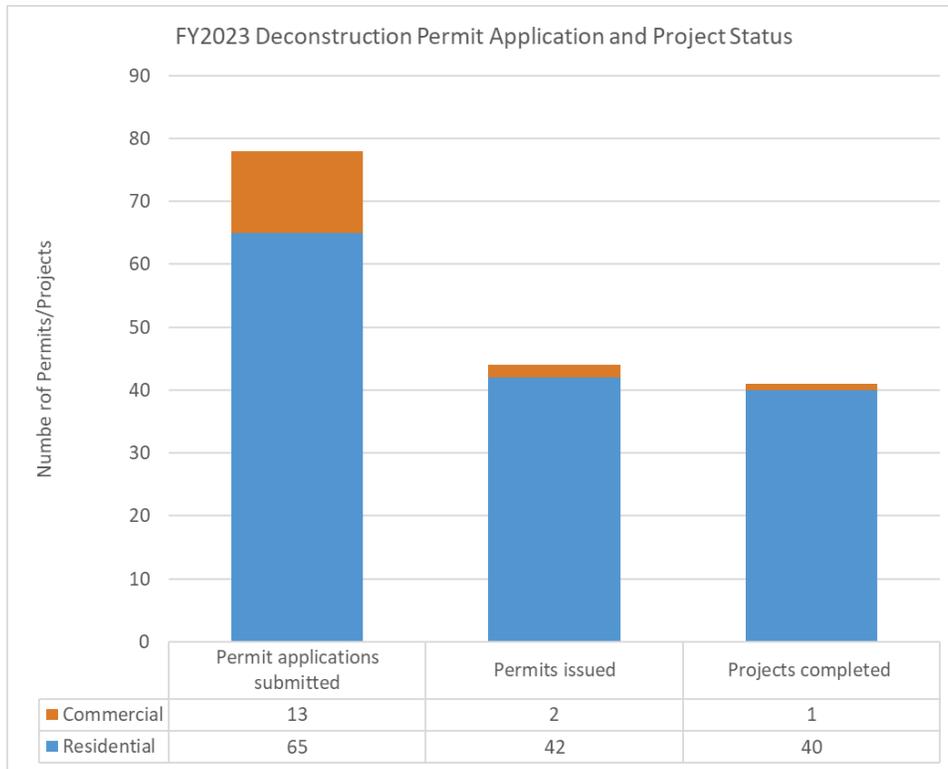
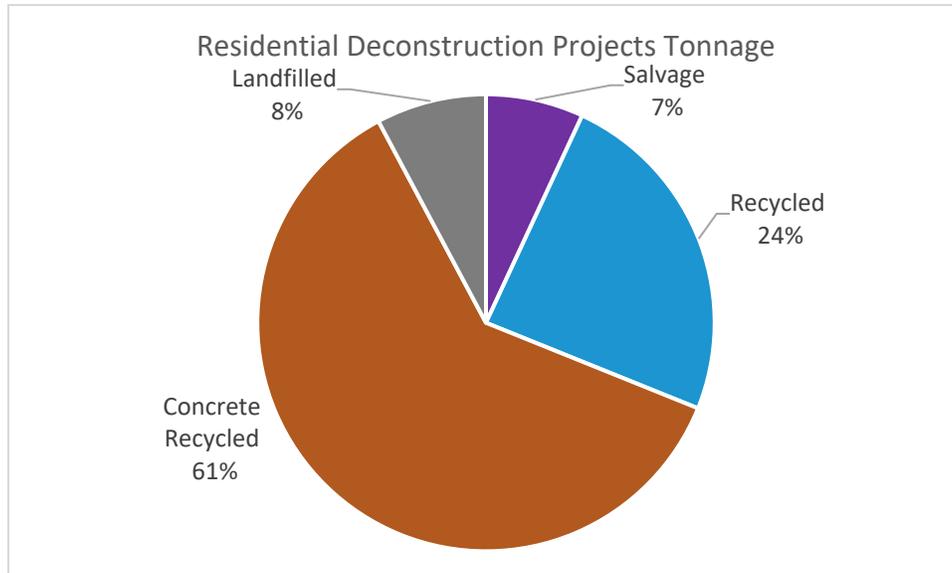


Table 1 below summarizes the tonnages generated from the residential projects that completed permit documentation and had the whole structures removed in Fiscal Year 2023. The tonnages of materials were documented in the Green Halo Systems, a waste management tracking tool for development projects required by the Planning and Development Services Department. Graph 2 provides a visual of the percentage of material categories from these projects. In summary, the salvaged materials recovered for reuse (mostly lumber, cabinets, doors, and windows) accounted for seven percent of the materials from the 33 complete residential projects with completed documentations in the Green Halo System, and only eight percent of the materials were landfilled. Examples of materials landfilled included insulation and painted wood. Materials recovered for recycling included clean wood debris, drywall and concrete. This is consistent with Fiscal Year 2022, when approximately 3,635 tons of materials were created and 251 tons, or seven percent, were salvaged for reuse.

Table 1: Fiscal Year 2023 Residential Deconstruction Tonnage		
	Tonnage	Percentage (%)
Salvaged for Reuse	251	7%

Recycled	880	24%
Concrete Recycled	2,221	61%
Landfilled	283	8%
Total	3,635	

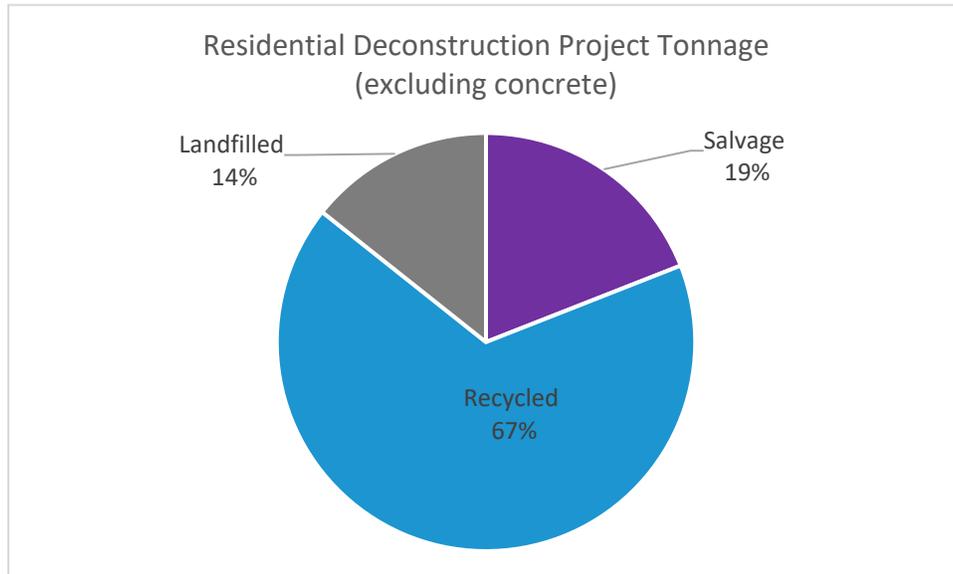
Graph 2: Fiscal Year 2023 Residential Deconstruction Tonnage Percentages



Concrete is a heavy material with very high recyclability in the range of 95 to 99 percent. The common practice to manage concrete and other inert materials at most of the deconstruction projects is to separate and haul it as a single material for recycling. In Fiscal Year 2023, 2,316 tons of concrete were generated from the 33 residential projects, where 2,221 tons, or 95.9 percent, were recycled. Table 2 and Graph 3 below summarize the tonnages excluding concrete to provide a different perspective and focus on the management of the rest of the building materials. This focused analysis more accurately reflects the efforts and results to separate traditionally mixed waste at the deconstruction projects as required by the ordinance.

Table 2: Fiscal Year 2023 Residential Deconstruction Tonnage Excluding Concrete		
	Tonnage	Percentage (%)
Salvaged for Reuse	251	19%
Recycled	880	67%
Landfilled	189	14%
Total	1,320	

Graph 3: Fiscal Year 2023 Residential Deconstruction Tonnage Percentages Excluding Concrete



Staff conducts continuous communication, outreach, and education with the stakeholders involved in each covered project. Staff also oversees, documents, and addresses instances of noncompliance. The most common form of noncompliance is improper sorting of waste into single material types.

In Fiscal Year 2023, staff proactively worked with the project team of a commercial project where the structure was planned for complete removal and considered a covered project under the ordinance. Despite multiple conversations, meetings, and coordination attempts initiated by staff to assist the project team to fully understand and comply with all aspects of the ordinance requirements, the structure was rapidly demolished, and materials were not source separated as required by the municipal code. Staff issued a citation to the permit applicant to address the violations observed. Staff is evaluating the enforcement plan and appropriate penalties to be assessed to deter future incidents of non-compliance.

In Fiscal Year 2024, staff continues to implement requirements, monitor covered projects, and emphasize better onsite source separation for all active and upcoming deconstruction projects. Staff will also update outreach material and incorporate a feedback mechanism for project owners and stakeholders to acknowledge their understanding of all related ordinance requirements. With the ordinance now having been in place since July 2020, staff is also working with a consultant to conduct an evaluation of the Deconstruction Ordinance's cost and effectiveness.

FISCAL/RESOURCE IMPACT

The primary resource impact is staff time for project site visits, documentation, and communication with stakeholders including virtual meetings and onsite meetings with project owners and contractors. Staff spends approximately 9 staff hours for each project. Staff also spends time and resources on collaboration across different City departments and with industry representatives. In Fiscal Year 2023, this effort totaled approximately 0.33 full time equivalents of staff time or 700 hours annually.

STAKEHOLDER ENGAGEMENT

Outreach and education were conducted prior to when the Deconstruction Ordinance was implemented, which included direct communication with stakeholders of upcoming and active deconstruction projects. Engagement is ongoing through documents, emails, webpage, online and onsite meetings that emphasize reuse and source separation requirements for all active and upcoming deconstruction projects. Staff is also involved in regional, statewide, and nationwide efforts via working groups that focus on deconstruction, reuse, market development, and construction, demolition, and deconstruction debris management.

ENVIRONMENTAL REVIEW

This report is for informational purposes only with no action required by the Council and is therefore not a project subject to California Environmental Quality Act (CEQA) review.

APPROVED BY:

Brad Eggleston, Director Public Works/City Engineer