




CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Waste Management Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	November 1, 2021
SUBJECT/REPORT NO:	Update to Hamilton's Solid Waste Collection Design Guidelines for Developments (PW21061) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Ryan Kent (905) 546-2424 Ext. 7686
SUBMITTED BY: SIGNATURE:	Angela Storey Director, Waste Management Public Works Department 

RECOMMENDATION

That Appendix "A" attached to Report PW21061 respecting the City of Hamilton Waste Requirements for Design of New Developments and Collection be approved.

EXECUTIVE SUMMARY

The City of Hamilton (City) Waste Management Division is responsible for reviewing and providing comments on development applications related to waste collection and diversion. To guide City comments, Staff use the document titled Solid Waste Collection Design Guidelines for Developments (Design Guidelines). The purpose of the Design Guidelines is to ensure that new developments within the City are designed to permit safe and efficient waste collection and to provide residents with uniform access to waste collection services and diversion programs provided by the City. The Design Guidelines include information such as the required space for waste storage and waste collection for different types of developments, required access dimensions for waste collection vehicles and waste container requirements based on the size of developments. Over the last number of years, development in the City has evolved with higher density and requests for full diversion accessibility. This has resulted in a need

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

SUBJECT: Update to Hamilton's Solid Waste Collection Design Guidelines for Developments (PW21061) (City Wide) - Page 2 of 13

to revise the Design Guidelines to provide updated direction to Staff that incorporates new types of development such as stacked townhouses and large multi-residential developments with several towers and / or hundreds of units.

The process to review the Design Guidelines included an internal staff working group, benchmarking against other municipalities and external consultation with the development industry. This process is now complete and the changes to the Design Guidelines include:

- restricting turnaround areas;
- removing non-waste related uses from truck turnaround areas (such as snow storage);
- removing the ability to self-declare for private waste collection;
- Staff providing permission for developments to receive private waste collection;
- curbside collection dependent on dwelling units having sufficient waste storage and set out areas;
- requiring waste storage areas be large enough to store eight days' worth of waste including bulk items;
- including maximum round trip walking distance of 100 metres to dispose of waste;
- requiring multi-residential buildings with at least 30 dwelling units and 7 storeys to have a chute system with three individual chutes;
- allowing townhouse developments to use in-ground containers compatible with City waste collection vehicles;
- require loading areas to increase in size based on number of front-end containers being used;
- requiring multi-residential buildings to use pads on private property to set out carts; and
- requiring commercial and residential waste to be separated in mixed-use developments.

Most of the changes to the revised Design Guidelines included as Appendix "A" attached to Report PW21061 are supported or agreeable by all stakeholders; however, there are some recommended changes that the development industry does not support. Staff took into consideration all concerns provided by the development industry and worked to have a number of them updated however a few remain where the development industry feel that the City's Design Guidelines are too rigid. Based on the review process, Staff have justified the revised Design Guidelines as they support safe and efficient waste collection and improve residents' accessibility to the City's waste diversion programs. The Design Guidelines were also revised to reflect best practices used by other municipalities.

SUBJECT: Update to Hamilton's Solid Waste Collection Design Guidelines for Developments (PW21061) (City Wide) - Page 3 of 13

The purpose of Report PW21061 is to seek approval for the revised document titled Waste Requirements for Design of New Developments and Collection included as Appendix "A" attached to Report PW21061.

Alternatives for Consideration – Page 12

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: The current waste collection contract does not include the collection of organic or recyclable container materials in front-end containers; however, the revised Design Guidelines included as Appendix "A" attached to Report PW21061 allow for this service to be provided. In preparation for this proposed change, Staff secured set pricing for these services with the City's current waste collection contractor. The set pricing for these services is confidential, as it has been negotiated through the City's waste collection contract. As developments of this nature take time to build, the costs for the added service will not be realized for some time, 2023 at the earliest. Once these costs are realized, Staff will include budget impacts as part of the annual tax operating budget process. It is estimated, based on historical data such as the number of buildings that come onto City service annually, and other factors that the annual budget impact is in the range of \$40,000. This budget impact includes current program costs for recycling and organics collection at multi-residential buildings partially offsetting any increased costs relating to the front-end container collection for recycling and organics as identified in Report PW21061.

Staffing: N/A

Legal: N/A

HISTORICAL BACKGROUND

The Design Guidelines were most recently revised in 2015. Prior to that, there were updates in 2011 and 2007. The Design Guidelines are included as an appendix to the City's Site Plan Guidelines that guide all development applications subject to site plan approval. The City's Site Plan Guidelines are maintained by Planning and Economic Development (PED) and include guidelines for other Divisions as appendices such as Tree Preservation Details and Landscape and Grading Plan Requirements.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The details included in Appendix "A" attached to Report PW21061 have been drafted while considering the City's objectives laid out in Hamilton's Official Plan, Urban Design

SUBJECT: Update to Hamilton's Solid Waste Collection Design Guidelines for Developments (PW21061) (City Wide) - Page 4 of 13

Guidelines and the Comprehensive Development Guidelines and Financial Policies. These objectives include promoting intensification, infill and higher density developments to grow the City's housing supply.

Once approved, the Design Guidelines will be used to inform reviews that are underway to policies that the City uses to direct new development including the Site Plan Guidelines and the Zoning By-law.

The revised Design Guidelines support the first two guiding principles approved as part of the City's Solid Waste Management Master Plan:

1. The City of Hamilton must lead and encourage the changes necessary to adopt the principle of waste minimization.
2. The Glanbrook landfill is a valuable resource. The City of Hamilton must minimize residual waste and optimize the use of the City's diversion and disposal facilities.

RELEVANT CONSULTATION

The following groups have been consulted and are supportive of all or most of the recommendations being made to the revised Design Guidelines:

- Public Works Department – Waste Management Division – Waste Collections
- Planning and Economic Development Department – Growth Management Division, Planning Division, Transportation Planning and Parking Division and Building Division
- Corporate Services Department – Legal and Risk Management Services Division
- Corporate Services Department – Financial Planning Administration & Policy Division
- Waste Management Advisory Committee
- City Housing Hamilton

Presentations related to the revised Design Guidelines, were made to the Development Industry Liaison Group on January 11, 2021, and May 11, 2021, to the West End Home Builder's Association (WEHBA) on February 1, 2021, and to both the WEHBA and the Hamilton/Burlington Society of Architects (HBSA) on July 26, 2021. These presentations were made to inform the development industry of the proposed changes and feedback was received and reviewed by Staff. Staff responded to all feedback to identify if changes could be made or would remain as recommended and provided justification as applicable. Staff are very thankful for the development industry's participation in the process to update the Design Guidelines and are confident that

flexibility included in the Design Guidelines will allow for collaboration during the review of future development applications.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

Purpose of Design Guidelines and Internal Review

The purpose of the Design Guidelines is to ensure that new developments within the City are designed to permit safe and efficient waste collection and to provide residents with uniform access to waste collection and diversion programs provided by the City. As development in the City has changed over time, this has resulted in a need to revise the Design Guidelines to provide updated direction to Staff that incorporates new types of development such as stacked townhouses and large multi-residential developments with several towers and / or hundreds of units.

To identify specific issues and determine solutions to be included in the revised Design Guidelines, a multi-divisional working group was formed with Staff from the Public Works and PED Departments. This working group met throughout 2020 and 2021 and identified the most prominent issues related to the Design Guidelines. This included pieces such as waste collection vehicles reversing too frequently and too far on private roads. PED staff also provided insight on objectives identified in City planning policies, such as the Official Plan, including promoting intensification, infill and higher density developments to grow the City's housing supply.

To assist Staff in determining solutions for the noted concerns, a scan of similar policies for other municipalities was undertaken. These municipalities included: Toronto, Peel Region, Halton Region, Guelph, Richmond Hill, Brantford, London and Vancouver. These discussions resulted in the working group reaching consensus on how these issues would be addressed in the revised Design Guidelines to be named City of Hamilton Waste Requirements for Design of New Developments and Collection.

This process is now complete and the following changes to the Design Guidelines are recommended:

- Include information on the transition of the blue box program to producer responsibility and that this transition may require additional changes to how blue box material is stored and collected in the future;
- Provide limited ability for truck turning radii to allow for the vehicle to overhang curbs;
- Require development applications to include the proposed travel path of waste collection vehicles on site plans;
- Restrict the number of turnaround areas a waste collection vehicle will use on private roads and when turnaround areas will be permitted;

- Remove the ability of parking, snow storage and dwelling units to be located where waste collection vehicles reverse;
- Remove the ability to self-declare a development to receive private waste collection;
- Require the development industry to receive permission from staff to allow a development to receive private waste collection and not meet the Design Guidelines;
- Include that for a development to receive curbside collection all dwelling units within the development must have sufficient individual storage and set out areas for waste;
- Remove the ability of developments to use piles for the set out and collection of waste;
- Require dwelling units in townhouse developments that cannot receive curbside collection to use shared front-end containers and carts for the storage and collection of waste;
- Provide the ability for townhouse developments to use in-ground containers permitted the containers are compatible with City waste collection vehicles;
- Specific size requirements for waste storage in development types (i.e. multi-residential buildings, townhouse developments etc.);
- Require waste storage areas to be large enough for eight days of waste;
- Require waste storage areas to be large enough for bulk waste;
- Require that developments must be designed so residents do not need to travel more than 100 metres (round trip) to dispose of waste;
- Permit the allowance for loading areas to be located internally within buildings and underground;
- Require loading areas to have sufficient area for all front-end containers that are set-out on collection day;
- Require multi-residential buildings receiving cart service to set-out carts on private property on pads;
- Require multi-residential buildings that contain at least 30 dwelling units and have at least 7 storeys to have a chute system with three individual chutes; and
- Require residential and commercial waste to be separated in mixed-use developments.

External Consultation

External consultation on the Design Guidelines concluded on September 3, 2021, and included the WEHBA providing detailed comments on the draft Design Guidelines. Table 1 provides an overview of the comments received by Staff from the development industry throughout the consultation process and how Staff responded to the comments. The consultation process resulted in the development industry not fully supporting the following pieces: truck turnaround area size, how private waste collection will be permitted and dimensions for waste storage. Additionally, the development industry

SUBJECT: Update to Hamilton's Solid Waste Collection Design Guidelines for Developments (PW21061) (City Wide) - Page 7 of 13

noted an overarching concern that the draft Design Requirements are in direct conflict with provincial and City intensification targets. In response to this concern, PED Staff have reviewed the draft Design Guidelines and have noted that there is sufficient flexibility incorporated in the draft Design Guidelines to accommodate for circumstances where conflicts could arise, and specifically with respect to intensification in established urban areas.

Table 1: Summary of Comments

Area of Concern	Development Industry Comment	Staff Response	Agree or Keep As is (✓ or X)
Policy conflict	Design Guidelines must be reviewed with other policy changes by other groups i.e. Growth Management.	PED staff will consider the Design Guidelines when revising policies.	✓
Limiting truck reversals	Design Guidelines must allow either flexibility in the allowance of truck reversals or allow for private waste collection.	Design Guidelines revised to allow for private waste collection based on staff evaluation.	✓
Loss of units	Design Guidelines will reduce number of new units and profitability of the development industry.	Consideration has been given to reduce the loss of units.	✓
Turnaround areas	Truck turnaround areas are too large and will result in a loss of units.	Additional turnaround area provided in Design Guidelines to add flexibility. Size of turnaround areas are based on size of collection vehicles – no room for reduction and are similar to the requirement of other municipalities.	X
Private collection	Private waste collection should remain an option	Design Guidelines revised to allow for private waste collection based on site specific staff evaluation.	X

SUBJECT: Update to Hamilton's Solid Waste Collection Design Guidelines for Developments (PW21061) (City Wide) - Page 8 of 13

Waste storage	Waste storage area of 2.5m ² for houses should be accommodated in liveable spaces or garages.	Waste storage between collection days in liveable space is not permitted. Design Guidelines allow for waste storage in garages.	✓
Waste storage	Waste storage areas for multi-residential buildings should not be required to store the equivalent of 8 days of waste.	The size of the waste storage areas in the Design Guidelines are based on the service level that the City currently provides including weekly collection of garbage and dual stream recycling.	X
Chute infrastructure	The requirement for 4 separate chutes may result in a loss of units.	Design Guidelines revised to require 3 chutes including a separator.	X
Effective date	Complete development applications received by the City prior to the effective date should not be subject to the Design Guidelines	Design Guidelines revised so that complete development applications received prior to effective date will not be subject to Design Guidelines.	✓

The following information speaks to rationale for not changing components of the Design Guidelines following the consultation process.

Turnaround Area Dimensions

The Design Guidelines include maintaining the current dimensions for turnaround areas that are included in the current Guidelines. The justification for not changing the dimensions of the turnaround area included in the Design Guidelines is that these dimensions represent the minimum amount of space required for a City waste collection vehicle to make a three-point turn and as such, these cannot be reduced.

The development industry has expressed the concern that the dimensions for the turnaround area is excessive and will result in a loss of units. The development industry has not commented that the dimensions of the turnaround area can be reduced and still accommodate waste collection vehicles but has suggested the City should change how waste is collected to use less space. These suggestions include using smaller collection vehicles and using additional Staff where trucks reverse. The rationale for why these suggestions were not entertained by Staff is that they will result in significant

increased costs to the City such as purchasing new collection vehicles, vehicles that cannot hold as much waste or employing additional full-time employees (FTEs).

Collection vehicles currently used by the City and its contractor range in capacity from 25 to 40 cubic yards. The cost to purchase a 6 cubic-yard collection vehicle is approximately \$180,000. This cost does not include the impact on collection efficiency of using collection vehicles that do not align with the standards of the current fleet (i.e. number of times the vehicle would have to attend a transfer station to discharge in a day). If all routes serviced by City forces are eventually required to include an additional FTE to accommodate this request, this would result in an additional nine FTEs. Accommodating this request would also result in renegotiating contract pricing with the City's waste collection contractor.

Private Waste Collection

The Design Guidelines include the revision that Staff will determine whether a development should be permitted to be designed in a manner that does not comply with the Design Guidelines. The current Guidelines do not provide staff with any authority over this and provides the development industry with full ability to decide to opt out of City waste collection and design sites that cannot accommodate this service. Rationale for this change includes that it has become common practice for the development industry in Hamilton to design new developments in ways that prioritize maximizing density over operational functionality. An indication of how common this practice is can be seen by the fact that in the first six months of 2021, Staff received 107 development applications for developments that are permitted to receive City waste collection (i.e. multi-residential buildings and townhouse developments) with only 47 being designed so the City could provide waste collection. This practice results in the City being unable to service these developments and reduces resident accessibility to City waste services. This is a concern as residents of properties unable to receive City waste collection often opine this is a disservice to them as it results in a lack of accessibility to diversion programs and it often results in greater costs to residents. Private waste collection is not paid for by property taxes but through methods such as condominium fees which residents pay in addition to property taxes. To assist in making this determination, Staff will consider factors such as the size and shape of the property.

Dimensions for Waste Storage

The Design Guidelines include revised minimum dimensions for waste storage areas in multi-residential buildings and townhouse developments receiving shared waste collection. The current Guidelines include dimensions for waste storage areas; however, the dimensions have been updated to be consistent with industry best practices. The rationale for increasing these dimensions includes that a lack of storage space is often a barrier to participation in diversion programs. Superintendents of

buildings have expressed concern over lack of storage space for green carts as a reason for not participating in the organics program and residents have expressed that a lack of containers is a barrier to participation in diversion programs. To inform the 2020 update to Hamilton's Solid Waste Management Master Plan, a survey was

provided to receive resident feedback on a series of topics including barriers to participating in diversion programs. One of the survey questions directed to residents in multi-residential buildings was what prevents you from separating your waste into garbage, recycling, compost and other materials? This question had multiple answers that residents could select with the two most popular being Not enough organics containers (43.3%) and Not enough recycling containers (38.5%). The greatest barrier to having a sufficient number of diversion containers at multi-residential buildings is lack of storage space for containers.

The revised dimensions have been calculated based on the following waste generation rates:

- garbage set out limits for multi-residential buildings established in the City's Waste By-law;
- industry-wide accepted recycling generation rates for multi-residential buildings;
- a forecasted generation rate of one mini bin per week per multi-residential unit for organic waste; and
- a need for the storage of bulk (furniture) waste in between collection days.

The revised dimensions include that waste storage areas are large enough to store eight days' worth of waste as waste collection is provided by the City once per week for each stream. The additional day of waste storage has been included in case waste collection is delayed for any reason such as the loading space being inaccessible.

Chute Infrastructure and New Services

The Design Guidelines include a new requirement that all new multi-residential buildings with 30 or more dwelling units and 7 or more storeys must be designed so that separation of four waste streams (garbage, organics, containers and fibres) can occur on each floor. The rationale for requiring this new service for buildings with 7 storeys or more, is that these buildings are considered high-rises according to Hamilton's Official Plan. Buildings with less than 7 storeys are considered either low or mid-rises. The rationale for requiring this new service for buildings with 30 or more dwelling units, is this is consistent with where other municipalities have determined waste generation rates require the use of front-end containers. To achieve this, the Design Guidelines include that these buildings must be designed with three separate waste chutes. The required configuration of three chutes included in the Design Guidelines is:

- One chute for garbage disposal with all chute doors being black in colour;
- One chute for organics disposal with all chute doors being green in colour; and

SUBJECT: Update to Hamilton's Solid Waste Collection Design Guidelines for Developments (PW21061) (City Wide) - Page 11 of 13

- One chute with a bi-sorter for disposal of both fibre and container recycling with all chute doors being blue in colour.

The current Guidelines do not include requirements for separate chutes only that garbage chutes are permitted. The rationale for requiring waste chutes to

accommodate different waste streams is to increase waste diversion in multi-residential buildings. Historically, these buildings have had low diversion rates especially when compared to single-family homes. A contributing factor to these buildings performing poorly is the ease in which garbage can be disposed of in chutes on each floor and the effort required to take recycling and organics to a waste storage area located somewhere in the building other than on each floor.

Initially, staff proposed four separate chutes, one for each waste stream; however, the development industry requested that this number be reduced, and that tri-sorters be included as an option. Although staff complied with the request to reduce the number of chutes, the request to allow for tri-sorters was not granted. Bi-sorters and tri-sorters are systems that allow for a single waste chute to sort more than one type of waste through a diverter at the bottom of the chute. Bi-sorters can sort two waste streams and tri-sorters can sort three waste streams. The primary reason for permitting blue box material to be disposed of through a separate chute with a bi-sorter, is Ontario is in the process of transitioning the blue box program to an individual producer responsibility framework with Hamilton scheduled to transition its blue box program on April 1, 2025. With this transition, Hamilton will no longer have control over the blue box program and will no longer be financially responsible for the contamination of the blue box. Additionally, once transition occurs, producers could choose to have a single-stream recycling program or continue with the current dual stream system. Using a bi-sorter for recycling allows for program flexibility while minimizing the impact on new developments. As the City will no longer have control over the blue box program it should also make every effort to minimize how much blue box material the City manages that is improperly disposed of by residents. Committing a single chute to the disposal of blue box material will minimize this impact.

To accommodate the chute infrastructure proposed in Appendix "A" attached to Report PW21061, new services are required. These services are collecting organic material and recycling container material in front-end containers. Staff have proposed amending the Solid Waste By-law to accommodate these changes; however, as of the writing of Report PW21061, these services have not been approved by Council. By approving Recommendation (b) in Report PW21061, Council will be approving these new services.

Ongoing Assessment of the Design Guidelines

Moving forward, Waste Management and PED Staff will meet regularly to assess the implementation of the revised Design Guidelines and address any conflicts that may arise between the Design Guidelines and planning policies. Inter-department Staff will also meet on an as needed basis to evaluate concerns with the application of the Design Guidelines with specific development applications. This may result in Staff determining that flexibility is needed in applying the Design Guidelines to a specific development application to ensure that its application does not conflict with the

character of the street, the urban design and density objectives of the applicable land use policies, existing heritage features and / or the existing surrounding context. This flexibility will serve as a tool to be used by Staff, not the Development Industry, to both maintain a consistent look and feel of neighbourhoods and to best deliver waste programs and collection services to residents.

ALTERNATIVES FOR CONSIDERATION

Council could decide not to approve the recommendation of Report PW21061 but choose to approve the addition of organics and recycling collection using front end bins for multi-residential buildings. Council would direct Staff to amend the proposed Design Guidelines by adding sections contained within Appendix "A" attached to Report PW21061 related to the updated service.

Financial: The financial implications of this alternative are the same as approving the recommendation to approve the new Design Guidelines included as Appendix "A" attached to Report PW21061.

Staffing: N/A

Legal: N/A

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Healthy and Safe Communities

Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

Clean and Green

Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

Our People and Performance

Hamiltonians have a high level of trust and confidence in their City government.

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

Built Environment and Infrastructure

Hamilton is supported by state-of-the-art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" attached to Report PW21061 - City of Hamilton Waste Requirements for Design of New Developments and Collection