

PRELIMINARY OPTIONS OVERVIEW

Option	Sector Impacted	Benefits			Planning-Level Incremental City Solid Waste Fund Direct Cost Impact (\$/year, based on FY18 costs)
		Increase Diversion	Reduce Toxics	Enhance / Improve Services	
Year-Round Residential Compost Collection	Residential	✓		✓	\$70,000-\$140,000
Curbside Textile Collection	Residential	✓		✓	\$0 (modest revenue potential)
Bulky Waste Collection	Residential			✓	\$380,000-\$760,000
Electronic Waste (E-Waste) and Household Hazardous Waste (HHW) Collection	Residential	✓	✓	✓	\$390,000-\$440,000
Fats, Oils, and Grease (FOG) Management	Commercial	✓		✓	\$30,000-\$70,000 (Year 1, incl. implementation)
Commercial Organics Collection	Commercial	✓		✓	\$520,000 - \$1,540,000
Student Move-In / Move-Out Collections	Commercial	✓		✓	\$90,000-\$120,000
Construction and Demolition (C&D) Waste	Commercial	✓		✓	\$60,000-\$100,000 (Year 1, incl. implementation)
Commercial Services Participation Enforcement	Commercial	✓		✓	\$1,070,000-\$1,200,000
Improved Downtown / Alley Collection Services Alt. A - 7-Day Collection, Mandatory Sat & Sun Collection for Restaurants / Bars in DDA	Commercial / Residential			✓	\$330,000
Improved Downtown / Alley Collection Services Alt. B - Consolidated Containers and 7-Day Collection with Special Assessment	Commercial / Residential			✓	\$40,000 (planning / design only)
Improved Downtown / Alley Collection Services Alt. C - Consolidated Underground Containers and 7-Day Collection with Special Assessment	Commercial / Residential			✓	\$63,000 (planning / design only) Rough capital estimate = \$1,081,000 (pilot) - \$5,020,000 (full-scale)
Improved Downtown / Alley Collection Services Alt. D - Bag-Based Collection with Twice Daily Pickup	Commercial / Residential			✓	\$860,000 (full cost for collection; excludes disposal)

Notes:

1. Cost impacts reflect City-incurred direct costs to the Solid Waste Fund only. Some options may impact other City departments / funds through added staff effort in those departments, which has not been quantified. Additional indirect costs may also be assessed to the Solid Waste Fund based on added staff or increased allocations levied by other City departments outside of the solid waste area, which have not been quantified.
2. Reflects expenses only; revenues from user fees or other sources may offset some expenses.

Option: Year-Round Residential Compost Collection		Sector Impacted: Residential			
Current Conditions: <ul style="list-style-type: none"> • Curbside compost collection April-November • Residents with carts can include plate scrapings in the cart • No compost collection is provided during winter months; residents are instructed to place food waste in the cart until collection starts again • Resident survey indicated: <ul style="list-style-type: none"> – This is a top service residents want most – 2 out of 3 residents say they would use the service 		Potential Future Conditions: <ul style="list-style-type: none"> • Expand compost collection December-March • Collection for cart customers only to enable continued food waste collection and minimize labor requirements • Collection to occur bi-weekly or monthly due to reduced volume to be collected compared to the typical yard waste season and to minimize cost • Potential challenge - food waste may freeze in carts and not be collected due to climate; will require customer education/awareness and preparation of customer service response 			
Benefits: <ul style="list-style-type: none"> ✓ Increase diversion <ul style="list-style-type: none"> – Estimated 85-213 tons per year (0.2% - 0.3% increase in diversion) ✓ Enhance / improve services 					
City Solid Waste Fund Direct Cost Impact: <ul style="list-style-type: none"> • \$70,000 per year (monthly collection) - \$140,000 per year (bi-weekly collection) • \$0.22 - \$0.44 per household per month • \$650 - \$820 per ton diverted 					
Resource Requirements & Implementation: <ul style="list-style-type: none"> • Operations staff and equipment (increase 1-2 seasonal compost collection drivers to FTE drivers) <ul style="list-style-type: none"> – Bi-weekly collection: 2 drivers, 2 trucks – Monthly collection: 1 driver, 1 truck – Limited seasonal operation; rental truck to be used for collection while larger scheduled fleet maintenance is performed during the winter • Support staff (to be supported with existing staff) <ul style="list-style-type: none"> – Customer Service to field additional calls about service during winter months – Outreach to promote use of the expanded service • Implementation <ul style="list-style-type: none"> – Inventory current cart locations / establish tracking procedure for future cart locations to enable efficient route planning (to be performed by route supervisors / drivers or ride-along staff to record existing locations) – Amend Solid Waste Management Code Chapter 26 and Solid Waste Regulations to reflect changes in dates of service and establish limitation on service to cart collection only during the winter season – Promote to residents through mailings, social media postings, and the City website – Time to implement - 6-9 months – Potential start of services in December 2020; potentially pilot during winter of FY20 to gauge customer usage, confirm diversion quantities, and evaluate operational issues (e.g., freezing in carts) 					
Rating	Level of Effort to Implement	Alignment with Zero Waste Vision	City Solid Waste Fund Direct Cost	GHG Reduction Potential	Responsiveness to Public Input
High					✓
Medium	✓	✓	✓	✓	
Low					

Option: Curbside Textile Collection		Sector Impacted: Residential			
Current Conditions: <ul style="list-style-type: none"> No City-coordinated program Accepted at Drop-Off Station, donation centers, churches, consignment shops, USAgain and similar drop boxes Resident survey indicated: <ul style="list-style-type: none"> 90% of residents donate clean and undamaged clothing and textile items now 8% of residents indicated clothing and textile collection was of the most interest to them if the City provided one new or expanded service 		Potential Future Conditions: <ul style="list-style-type: none"> City-contracted curbside collection program Supplement to - not replacement for - other donation options Collection provided by private contractor on same day as other collection services <ul style="list-style-type: none"> Simple Recycling provides service in 26 communities in the Detroit market (including Saline and Ypsilanti) and 160+ communities in 12 markets nationally Initial collection from single-family homes, with potential to develop multi-family program with centralized collection on the property (such as use of drop boxes) 			
Benefits: <ul style="list-style-type: none"> ✓ Increase diversion <ul style="list-style-type: none"> Estimated 25-143 tons per year (0.1-0.2% increase in diversion) based on Simple Recycling data in other Michigan communities ✓ Enhance / improve services 					
City Solid Waste Fund Direct Cost Impact: <ul style="list-style-type: none"> Nominal; contract administration and outreach to be provided by current staff Revenue of \$20 per ton (\$0.01 per pound) = \$500-\$2,860 revenue per year 					
Resource Requirements & Implementation: <ul style="list-style-type: none"> Operations staff and equipment <ul style="list-style-type: none"> None; service to be provided by a private contractor Support staff (to be supported with existing staff) <ul style="list-style-type: none"> Contract administration Outreach to promote use of the service Implementation <ul style="list-style-type: none"> Procure and execute contract with service provider City provides collection day information and address database to service provider Provider delivers collection bags and provides promotion to all residents City provides promotional assistance through avenues such as social media and its website, with promotional materials / information supplied by vendor Time to implement - 6-9 months Potential start of services in FY21 					
Rating	Level of Effort to Implement	Alignment with Zero Waste Vision	City Solid Waste Fund Direct Cost	GHG Reduction Potential	Responsiveness to Public Input
High					
Medium		✓			✓
Low	✓		✓	✓	

Option: Bulky Waste Collection		Sector Impacted: Residential, including City-served multi-family			
Current Conditions: <ul style="list-style-type: none"> • No City-provided curbside collection of extra waste outside the cart or large items that don't fit in the cart • Drop-off options available at the Drop-Off Station, RAA's Recovery Yard, or donation sites - residents must haul items themselves • Private contractors can remove bulk items at resident expense • Resident survey indicated: <ul style="list-style-type: none"> – This is a top service residents want most – Nearly 2 out of 3 residents would be willing to pay at a cost of \$25 per pickup – More than half of residents need bulky pickup at least 2 or 3 times per year; 9 in 10 need it at least once per year 		Potential Future Conditions: <ul style="list-style-type: none"> • City-provided collection of bulky items including furniture, mattresses, large appliances, and select homeowner-generated construction / renovation wastes • Pre-scheduled service - residents schedule a pickup when need arises • City may establish collection zones or specify the date of pickup based on factors such as location in the City, type of waste being collected, and other scheduled bulky collections to facilitate City routing and staffing • Collected bulky items will be delivered to the transfer station, excluding appliances <ul style="list-style-type: none"> – City to contract with authorized scrap metal recycler proper disposal/recycling of appliances and other metals, including decommissioning of appliances containing Freon 			
Benefits: <ul style="list-style-type: none"> ✓ Enhance / improve services <ul style="list-style-type: none"> – This option offers convenience for residents and addresses resident requests for the service; diversion is not likely, other than metals (if collected; commonly will be picked up by scavengers when placed on curb) 					
City Solid Waste Fund Direct Cost Impact: <ul style="list-style-type: none"> • \$380,000-\$760,000 per year • \$1.20-\$2.40 per household per month 					
Resource Requirements & Implementation: <ul style="list-style-type: none"> • Operations staff and equipment (2.0-4.0 FTE) <ul style="list-style-type: none"> – Two to four staff - 1-2 driver/operator and 1-2 laborer/spotter – One to two trucks with grapple / claw for loading large items (Petersen Industries TL-3 Lightning Loader included in cost) – Routing tools / software to plan efficient daily collection routes • Support staff (0.5-1.0 FTE) <ul style="list-style-type: none"> – Customer Service to schedule pickups • Implementation <ul style="list-style-type: none"> – Purchase truck and hire operations staff – Establish customer service procedures for scheduling pickups and collecting service fee – Amend Solid Waste Management Code Chapter 26, Section 2:6(1) and Solid Waste Regulations to remove prohibition on bulk item collection and establish procedures / specifications for bulky waste collection – Procure navigational equipment and subscribe to routing tools / software for use in establishing daily routes – Promote to residents through mailings, social media, City website – Time to implement - 12-18 months (truck lead time is minimum 8 months) 					
Rating	Level of Effort to Implement	Alignment with Zero Waste Vision	City Solid Waste Fund Direct Cost	GHG Reduction Potential	Responsiveness to Public Input
High	✓				✓
Medium			✓		
Low		✓		✓	

Option: Electronic Waste (E-Waste) & Household Hazardous Waste (HHW) Curbside Collection	Sector Impacted: Residential
Current Conditions: <ul style="list-style-type: none"> • No City-coordinated collection provided <ul style="list-style-type: none"> – City code bans disposal of monitors and TVs – City regulations ban HHW from disposal • Drop-off options available: <ul style="list-style-type: none"> – Drop-Off Station – Washtenaw Co. Home Toxics Collection Center – For e-waste only - retailers (e.g., Best Buy), donation outlets (for working devices) • Resident survey indicated <ul style="list-style-type: none"> – 60% of residents currently get rid of electronics through either donation or taking to a drop-off – 56% of residents take at least some HHW to a drop-off now – 34% of residents say they don't take HHW to a drop-off because it isn't convenient or they don't have enough to take 	Potential Future Conditions: <ul style="list-style-type: none"> • Curbside pickup option could be provided by private contractor <ul style="list-style-type: none"> – Contractor programs include Waste Management's At-Your-Door service or Clean Harbors Door-to-Door Collection Program • Alternatively, could collaborate with Washtenaw County / regional authority(ies) for mobile drop-offs if the County or an authority implemented such a program <ul style="list-style-type: none"> – Cost impact below does not reflect this option, as the cost would depend on the partnership and cost-sharing negotiated

Benefits:

- ✓ Increase diversion
 - E-waste and HHW are approximately 2.2% of the disposed residential waste stream, or about 340 tons per year in Ann Arbor; if all residential e-waste and HHW were diverted, diversion rate increase = 1%
- ✓ Reduce toxics
- ✓ Enhance / improve services

City Solid Waste Fund Direct Cost Impact:

- \$394,000-\$441,000 per year for curbside collection (based on recent At-Your-Door bid pricing in other markets; would require procurement to identify local market cost for private contractor to perform service)
- \$1.25-\$1.40 per household per month

Resource Requirements & Implementation:

- Operations staff and equipment
 - None; service to be provided by a private contractor
- Support staff (to be supported with existing staff)
 - Contract administration
 - Outreach to promote use of the service
 - Customer Service to answer resident questions
- Implementation
 - Opportunity to collaborate with Washtenaw County and/or regional authority(ies)
 - Develop specifications and draft RFP to procure service provider
 - Provider to be point of contact for residents to schedule pickups
 - City will provide promotion, potentially with promotional materials / information supplied by vendor
 - Time to implement - 12-18 months

Rating	Level of Effort to Implement	Alignment with Zero Waste Vision	City Solid Waste Fund Direct Cost	GHG Reduction Potential	Responsiveness to Public Input
High		✓			
Medium	✓		✓		✓
Low				✓	

Option: Fats, Oils, and Grease (FOG) Management		Sector Impacted: Commercial (restaurants)			
Current Conditions: <ul style="list-style-type: none"> • Yellow grease (cooking grease from fryers) managed through an open market system where restaurants contact the FOG provider they choose • FOG is collected typically at no cost to the restaurant and may result in revenue payment to the restaurant • No requirements or reporting processes are in place for the City to receive information on: <ul style="list-style-type: none"> – Quantities collected – Which restaurants utilize which containers • This results in challenges including enforcing cleanliness standards around containers and addressing space constraints for waste and recycling containers 		Potential Future Conditions: <ul style="list-style-type: none"> • Increased regulation of collection operations • Options include: <ul style="list-style-type: none"> – Ordinance requirements specifying operations standards, data reporting, and enforcement to be instituted – City-contracted service for grease management with voluntary participation (similar to Tempe Grease Co-Op) 			
Benefits: <ul style="list-style-type: none"> ✓ Increase diversion <ul style="list-style-type: none"> – New diversion is not anticipated; this would provide data to the City to enable measurement of diversion that is not included in diversion rate calculations currently ✓ Enhance / improve services 					
City Solid Waste Fund Direct Cost Impact: <ul style="list-style-type: none"> • \$20,000 - \$40,000 per year for monitoring, data collection and analysis, and enforcement • Additional \$10,000 - \$30,000 one-time implementation costs for consultant assistance to develop ordinance and assist with Co-Op procurement 					
Resource Requirements & Implementation: <ul style="list-style-type: none"> • Operations staff and equipment <ul style="list-style-type: none"> – None • Support staff (0.25-0.5 FTE) <ul style="list-style-type: none"> – Ordinance enforcement, data review, outreach to make restaurants aware of requirements – If Co-Op pursued - contract administration, Customer Service to sign up restaurants (unless assigned to Co-Op grease management company), outreach to promote use of the service • Implementation <ul style="list-style-type: none"> – Develop ordinance and standards; potential to incorporate into existing hauler licensing requirements under City code if FOG / yellow grease is added to definition of solid waste – If Co-Op pursued - develop RFP and administer procurement process – Time to implement - 6-12 months (ordinance option); 12-18 months (Co-Op option) 					
Rating	Level of Effort to Implement	Alignment with Zero Waste Vision	City Solid Waste Fund Direct Cost	GHG Reduction Potential	Responsiveness to Public Input
High					
Medium	✓	✓			✓
Low			✓	✓	

Option: Commercial Organics Collection		Sector Impacted: Commercial (food-oriented businesses)			
Current Conditions: <ul style="list-style-type: none"> No City-coordinated collection program available to all businesses <ul style="list-style-type: none"> Approximately 20 businesses are included in the City's residential compost collection program, seasonal collection only Some businesses contract with private haulers for food waste collection 		Potential Future Conditions: <ul style="list-style-type: none"> City-contracted food waste collection as a voluntary service option as part of the commercial waste franchise Including in the commercial franchise provides benefits: <ul style="list-style-type: none"> Single provider for commercial organics Coordinated schedules for waste and food waste collection (for businesses using the franchise hauler for both waste and food waste service) Coordination to right-size waste and organics services between City and contractor 			
Benefits: <ul style="list-style-type: none"> ✓ Increase diversion <ul style="list-style-type: none"> Food-oriented businesses: estimated 1,000-2,400 tons per year (1-3% increase in diversion) All businesses: estimated 1,900-4,300 tons per year (3-6% increase in diversion) ✓ Enhance / improve services 					
City Solid Waste Fund Direct Cost Impact: <ul style="list-style-type: none"> Food-oriented businesses <ul style="list-style-type: none"> \$523,000 per year; \$240 per account per month \$220-\$520 per ton diverted All businesses <ul style="list-style-type: none"> \$1,535,000 per year; \$155 per account per month \$360-\$810 per ton diverted Costs assume a high level of participation by businesses to maintain route density; costs would likely be higher if a lower percentage of businesses elected to participate due to less collection efficiency 					
Resource Requirements & Implementation: <ul style="list-style-type: none"> Operations staff and equipment <ul style="list-style-type: none"> None; collection to be performed under commercial waste franchise by private hauler Support staff <ul style="list-style-type: none"> Outreach / monitoring / enforcement to make businesses aware of service, perform pre-service site inspections, and provide ongoing monitoring and enforcement of operations (2.0-5.0 FTEs) Customer Service to sign businesses up for service and perform billing (1.0-2.5 FTEs) Implementation <ul style="list-style-type: none"> Incorporate in upcoming commercial franchise procurement Conduct business outreach workshop(s) prior to start of contract as part of outreach to businesses 					
Rating	Level of Effort to Implement	Alignment with Zero Waste Vision	City Solid Waste Fund Direct Cost	GHG Reduction Potential	Responsiveness to Public Input
High	✓	✓	✓	✓	✓
Medium					
Low					

Option: Student Move-In / Move-Out Support		Sector Impacted: Commercial (multi-family properties / apartments)			
Current Conditions: <ul style="list-style-type: none"> • During peak moving periods in spring and fall, extra collections must be scheduled with the City at a cost to the property for the extra collection • Only materials contained in the dumpster / carts will be collected • City contracts for a centralized collection and donation location at intersection of Tappan and East University Avenues, available for use by area properties at no charge • Stakeholders representing multi-family properties / Washtenaw Area Apartment Association have expressed need for increased service during spring and fall moving periods 		Potential Future Conditions: <ul style="list-style-type: none"> • City-coordinated daily collection at designated multi-family properties with primarily student residents • Daily collection (Sunday-Saturday) to occur during the 2-week period around spring student move-out and 3-week period around fall student move-in/out peaks, with dates to be established and specified annually based on the U of M academic calendar • Collection to include bulky items such as furniture and mattresses that cannot be placed in dumpsters <ul style="list-style-type: none"> – Appliance collection would not be included, as appliances at rental properties are not typically provided by the resident • Service could be provided by City or by a private hauler contracted by the City 			
Benefits: ✓ Enhance / improve services					
City Solid Waste Fund Direct Cost Impact: <ul style="list-style-type: none"> • \$90,000-\$120,000 per year, assuming service is provided by City crews and Citywide residential bulky waste collection has been implemented 					
Resource Requirements & Implementation: <ul style="list-style-type: none"> • Operations staff and equipment <ul style="list-style-type: none"> – One bulky collection crew and internal “rental” of bulky waste collection truck for 2 weeks in the spring and 3 weeks in the fall (5 weeks total) – One to two front-load waste collection driver(s) and rental of supplemental front-load collection truck(s) for 2 weeks in the spring and 3 weeks in the fall (5 weeks total) • Support staff <ul style="list-style-type: none"> – Outreach to identify properties to be provided this service and notify designated properties of scheduled dates of increased service annually (0.5 FTE for 5 collection weeks and 4 pre-collection weeks annually) – Contract administration, if service is to be provided by private contractor instead of City • Implementation <ul style="list-style-type: none"> – Amend Solid Waste Management Code and Solid Waste Regulations to remove prohibitions on bulk item collection and collection of material outside containers, and establish standards for move-in / move-out waste collection – Collaborate with property owners to identify properties to receive added service – Schedule annual service dates for each spring / fall period during the fiscal year – Procure private hauler, if service will be contracted – Conduct outreach workshop(s) prior to first scheduled period to inform properties of the policies and procedures regarding extra collections 					
Rating	Level of Effort to Implement	Alignment with Zero Waste Vision	City Solid Waste Fund Direct Cost	GHG Reduction Potential	Responsiveness to Public Input
High					✓
Medium	✓				
Low		✓	✓	✓	

Option: Construction and Demolition (C&D) Waste		Sector Impacted: Commercial			
Current Conditions: <ul style="list-style-type: none"> • No City-coordinated collection service <ul style="list-style-type: none"> – C&D waste is not included in the commercial franchise • Collection and disposal is on open market basis for private haulers • Recycling options for mixed C&D material requiring processing are limited, but include at least one local facility (RAA Recovery Yard, formerly Calvert’s) 		Potential Future Conditions: <ul style="list-style-type: none"> • Ordinance requiring diversion of a target percentage of waste (initially 50%, with future increases if processors / markets available) • Applicable to projects meeting a defined square footage and/or dollar value • Diversion plan to be submitted as part of building / demo permit approval • Documentation of disposition of project wastes required as part of permit close-out • Failure to meet diversion target could result in fine or loss of upfront bond security • Consistent with practices in California (statewide model ordinance, widespread adoption by local governments); Chicago and metro area municipalities and counties 			
Benefits: <ul style="list-style-type: none"> ✓ Increase diversion <ul style="list-style-type: none"> – C&D tonnage is not currently included in City generation and diversion rate calculations – Requirement would provide data to include in calculations – Achieving diversion target would increase overall City diversion rate ✓ Enhance / improve services 					
City Solid Waste Fund Direct Cost Impact: <ul style="list-style-type: none"> • \$40,000-\$80,000 per year for permit application review, documentation review, monitoring / outreach / enforcement • Additional \$15,000-\$20,000 one-time implementation costs, including consultant assistance to develop ordinance • Likely to result in C&D waste collection cost impact to contractors / property owners for increased permit fees and if C&D processing costs are greater than landfill disposal costs 					
Resource Requirements & Implementation: <ul style="list-style-type: none"> • Operations staff and equipment <ul style="list-style-type: none"> – None; services will continue to be provided by private haulers on open market • Support staff (0.5-1.0 FTE) <ul style="list-style-type: none"> – Building Department and Public Works staff to collaborate on diversion plan review and diversion documentation follow-up as part of the building permit process to confirm requirements are being met – Outreach with contractors and private haulers to build awareness of requirements – Code enforcement, if fines are to be levied for not meeting targets • Implementation <ul style="list-style-type: none"> – Develop ordinance requirement and modify building permit process - collaborative effort between Public Works and Building Department – Conduct outreach with contractors and private haulers to phase in requirements 					
Rating	Level of Effort to Implement	Alignment with Zero Waste Vision	City Solid Waste Fund Direct Cost	GHG Reduction Potential	Responsiveness to Public Input
High	✓	✓			
Medium					✓
Low			✓	✓	

Option: Commercial Services Participation Enforcement		Sector Impacted: Commercial			
Current Conditions: <ul style="list-style-type: none"> Waste collection and recycling is required for all businesses <ul style="list-style-type: none"> Not all businesses currently have both services Current diversion rate (2018) from the commercial sector is about 11% 		Potential Future Conditions: <ul style="list-style-type: none"> Enforcement of ordinance requirements to ensure all businesses: <ul style="list-style-type: none"> Are subscribed to waste collection service Are receiving recycling service Are participating in recycling Preliminary City estimates indicate up to approximately 350 properties are not participating in recycling services and 500 properties may not be subscribed to waste collection 			
Benefits: <ul style="list-style-type: none"> ✓ Increase diversion <ul style="list-style-type: none"> Estimated 4,400 tons per year if commercial diversion doubles to 22%; would increase Citywide diversion rate by about 6% to approximately 37% ✓ Enhance / improve services 					
City Solid Waste Fund Direct Cost Impact: <ul style="list-style-type: none"> \$1,070,000-\$1,200,000 per year \$240-\$270 per ton diverted (at 4,400 tons additional diversion) 					
Resource Requirements & Implementation: <ul style="list-style-type: none"> Operations staff and equipment (0.5-1.0 FTE) <ul style="list-style-type: none"> Route driver to provide additional collection to properties that begin to receive service Additional carts or dumpsters for businesses not currently receiving service; not all non-subscribed customers may require containers, as they may be using existing containers provided to neighboring businesses who would then no longer require that container Support staff (1.0-2.0 FTE during implementation; 1.0 FTE for ongoing support) <ul style="list-style-type: none"> Outreach team - one-time implementation phase staffing of 3 staff for a 3-month to 6-month period to complete initial inventory and work with businesses to adjust services; may bring cost down by performing or supplementing with existing staff or interns if available Ongoing monitoring - 1 new enforcement FTE (in addition to the FTE proposed in the FY20-FY21 budget) to track levels of service, business changes, and ensure continued compliance with requirements Customer Service to establish service levels and billing on as-needed basis; initial implementation may require 0.25 FTE for a 3-month to 6-month period Implementation <ul style="list-style-type: none"> Inventory existing services citywide and identify businesses requiring service Provide one-on-one business outreach to establish service where necessary Establish method to track business adherence to requirements, particularly as properties change hands or new businesses enter the City 					
Rating	Level of Effort to Implement	Alignment with Zero Waste Vision	City Solid Waste Fund Direct Cost	GHG Reduction Potential	Responsiveness to Public Input
High	✓	✓	✓	✓	
Medium					✓
Low					

Option: Improved Downtown / Alley Collection Services	Sector Impacted: Commercial, downtown residents
Current Conditions: <ul style="list-style-type: none"> • Collection performed by City of Ann Arbor (trash carts; recycling carts and dumpsters) or WM (dumpsters) • Service levels selected by individual businesses • City does not provide Saturday/Sunday collection • WM offers 7-day collection but cost is high and no businesses currently utilize 7-day collection option • Not all businesses are paying for services • Containers sometimes overflow and/or cannot be serviced because of obstructions (parked cars, delivery trucks, snow, overflowing trash / recyclable material) 	
Benefits: <ul style="list-style-type: none"> ✓ Enhance / improve services 	
Alternatives: <ul style="list-style-type: none"> • Alt. A - 7-Day Collection, Mandatory Saturday and Sunday Collection for Restaurants / Bars in DDA • Alt. B - Consolidated Containers and 7-Day Collection with Special Assessment • Alt. C - Consolidated Underground Containers and 7-Day Collection with Special Assessment • Alt. D - Bag-Based Collection with Twice Daily Pickup 	

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Option:

Improved Downtown / Alley Collection Services

Alt. A - 7-Day Collection, Mandatory Saturday and Sunday Collection for Restaurants / Bars in DDA

Potential Future Conditions:

- Consolidated hauling with a single service provider (either City or contractor)
- 7-day collection available
- Businesses continue to select own container size and pay based on container size and collection frequency
- Restaurants and bars required to have minimum 4-day collection, with Saturday and Sunday mandatory
 - Impacts estimated 220 businesses
- By providing collection during peak weekend periods, the number and/or size of containers for each business may decrease, improving availability of space in alleys

City Solid Waste Fund Direct Cost Impact:

- \$330,000 per year
- \$125 per restaurant/bar per month on average

Resource Requirements & Implementation:

- Operations staff and equipment (0.5 FTE)
 - Adjust driver schedules for 2 route drivers to accommodate weekend collection (one driver to work 4 hours Sunday, then 9 hours Monday through Thursday; one driver to work 9 hours Tuesday through Friday, then 4 hours Saturday)
 - Add approximately 0.5 FTE driver and truck Monday through Friday to accommodate additional pickups and changed schedules
 - Transfer station and MRF hours required to be adjusted to accept material for half day on Saturday and Sunday; need to negotiate daily rate for Sunday operations at transfer station and secure MRF weekend operating costs in next MRF agreement
- Support staff (0.25 FTE)
 - Outreach / monitoring / enforcement to establish revised collection schedules with restaurants and bars and track performance
- Implementation
 - Revise ordinance to establish service level requirements
 - Negotiate and establish half-day operating rates for Saturday and Sunday transfer station and MRF operations
 - Purchase trucks and hire staff / adjust collection driver schedules
 - Work with restaurants and bars to establish new collection schedule and adjust container size and/or number if necessary
 - Time to implement - 12-24 months to full implementation

Rating	Level of Effort to Implement	Alignment with Zero Waste Vision	City Solid Waste Fund Direct Cost	GHG Reduction Potential	Responsiveness to Public Input
High	✓				
Medium			✓		✓
Low		✓		✓	

Option:

Improved Downtown / Alley Collection Services

Alt. B - Consolidated Containers and 7-Day Collection with Special Assessment

Potential Future Conditions:

- Establish consolidated services using dumpsters to the degree feasible to reduce the number of containers required and streamline collections
- Consolidated hauling with a single service provider (either City or contractor)
- Identify shared dumpster/cart locations to serve groups of properties
- Perform 7 day collection on as-needed basis; install container monitoring equipment and collect containers meeting a certain fullness threshold each day for efficiency
- Assign an equitable assessment rate to all DDA properties based on their type and size (similar to a BIZ model)
 - Businesses with higher service needs (e.g., restaurants) apportioned a larger share of cost compared to properties with lower service needs (e.g., professional office)

City Solid Waste Fund Direct Cost Impact:

- Estimate of cost at full implementation requires further planning: full inventory of service needs and space requirements / availability, development of assessment formula
 - Cost to evaluate and design option estimated at \$40,000 (\$34,000 consultant costs, \$6,000 City support costs)
- New service costs would be reduced first by reallocating current millage revenues to the new service; additional cost covered by assessments to each business / property

Resource Requirements & Implementation:

- Operations staff and equipment if City performs collection
 - Same or fewer staff required due to consolidated containers resulting in fewer daily tips
 - May require additional front-load collection truck with transition to more dumpsters and fewer carts
 - Dumpsters
 - Container fullness monitoring equipment
- Support staff
 - Outreach to complete initial inventory and communicate changes to impacted properties
 - Public Works / DDA to designate collection container locations, sizes, and properties utilizing each container
 - Code enforcement
- Implementation
 - Inventory existing service levels and property types / sizes
 - Evaluate space availability and identify specific container locations and properties assigned to each container
 - Procure contractor to provide containers and collection services, or purchase containers as needed if service will be performed by City
 - Define special assessment rate calculation parameters
 - Perform outreach and education regarding collection parameters, container usage, and billing method
 - Time to implement - 2-3 years

Rating	Level of Effort to Implement	Alignment with Zero Waste Vision	City Solid Waste Fund Direct Cost	GHG Reduction Potential	Responsiveness to Public Input
High	✓				✓
Medium			✓	✓	
Low		✓			

Option:

Improved Downtown / Alley Collection Services

Alt. C - Consolidated Underground Containers and 7-Day Collection with Special Assessment

Potential Future Conditions:

- Establish consolidated services using underground containers to the degree feasible to reduce the number of containers required and streamline collections
 - If obstructions prevent installation in some areas, identify locations for standard dumpsters / carts
- Consolidated hauling, with City providing all collection services
- Identify consolidated underground container locations to serve groups of properties
- Perform 7-day collection on as-needed basis; install container monitoring equipment and collect containers meeting a certain fullness threshold each day for efficiency
- Assign an equitable assessment rate to all DDA properties based on their type and size (similar to a BIZ model)
 - Businesses with higher service needs (e.g., restaurants) apportioned a larger share of cost compared to properties with lower service needs (e.g., professional office)

City Solid Waste Fund Direct Cost Impact:

- Estimate of cost at full implementation requires further planning: full inventory of service needs and space requirements / availability, development of assessment formula
 - Cost to evaluate and design option estimated at \$63,000 (\$54,000 consultant cost, \$9,000 City support cost)
 - Preliminary / rough estimate of capital for containers (90) and truck to service containers = \$6,024,000 / \$1,362,000 annual capital; pilot-scale (12 containers) = \$1,297,000 total / \$267,000 annual capital
- New service costs would be reduced first by reallocating current millage revenues to the new service; additional cost covered by assessments to each business / property

Resource Requirements & Implementation:

- Operations staff and equipment
 - Same or fewer staff required due to consolidated containers resulting in fewer daily tips
 - Specially designed collection truck to service underground containers
 - Front-load collection truck to service dumpsters
 - Underground containers, with dumpsters / carts for areas where underground containers cannot be installed
 - Container fullness monitoring equipment
- Support staff
 - Outreach to complete initial inventory and communicate changes
 - Public Works / Engineering to lead underground container design, designate collection container locations, sizes, and properties utilizing each container
 - Code enforcement
- Implementation
 - Inventory existing service levels and property types / sizes
 - Evaluate and identify potential sites / locations for underground containers
 - Purchase and install underground containers and purchase collection truck
 - Define special assessment rate calculation parameters
 - Perform outreach regarding collection parameters, container usage, and billing method
 - Time to implement - 3-5 years

Rating	Level of Effort to Implement	Alignment with Zero Waste Vision	City Solid Waste Fund Direct Cost	GHG Reduction Potential	Responsiveness to Public Input
High	✓		✓		✓
Medium		✓		✓	
Low					

Option:

Improved Downtown / Alley Collection Services
 Alt. D - Bag-Based Collection with Twice Daily Pickup

Potential Future Conditions:

- Properties purchase bags for waste and recycling
- Bags are set out for collection during designated time periods daily
- City or private contractor collects bags in early morning and early evening
- Costs may be established with a base account fee charged to all properties, then a fee per bag purchased
- Exemptions can be provided for certain circumstances, such as organics collection (in carts, stored in alley) or properties that have no ability to hold material indoors until the designated set-out time (to be confirmed by City)
- May further incentivize recycling or waste reduction by charging only for the bags used and having a lower fee for recycling bags than waste bags
- This model is utilized in Seattle, termed the Clear Alleys Program, to reduce containers in alleys and increase cleanliness
- Operational concerns include risk of bag breakage / leaking, rodents chewing into bags, need for debagging of recyclables prior to processing, and manual handling of bags by collection staff

City Solid Waste Fund Direct Cost Impact:

- \$860,000 per year
- Cost impact to businesses is based on the volume of material generated and quantity / frequency of set-outs

Resource Requirements & Implementation:

- Operations staff and equipment
 - One driver and one laborer per collection shift, with 4 hours of collection early morning and 4 hours of collection early evening
 - Use existing rear-load collection truck or purchase split-body truck to collect both trash and recycling at the same time, with manual loading by laborer
 - Bags to be purchased in bulk by the City for sale to businesses
- Support staff (0.75 FTE)
 - Outreach and enforcement to communicate changes and proper set-out practices and monitor and enforce procedures; assume 0.5 FTE required
 - Customer Service to respond to customer questions and fulfill bag orders; assume 0.25 FTE required
- Implementation
 - Commence services at termination of commercial waste franchise contract
 - Amend ordinance to establish rules of set-outs and enforcement provisions
 - Perform outreach and education regarding collection practices
 - Time to implement - 12-24 months

Rating	Level of Effort to Implement	Alignment with Zero Waste Vision	City Solid Waste Fund Direct Cost	GHG Reduction Potential	Responsiveness to Public Input
High	✓		✓		✓
Medium		✓			
Low				✓	