

**FILE NUMBER:** DCA190-003

**DATE INITIATED:** May 29, 2019

**TOPIC:** Development code amendment to provide a parking reduction for multifamily recycling containers

**CITY COUNCIL DISTRICTS:** All

**CENSUS TRACTS:** All

**PROPOSAL:** Consideration of amendments to Sections 51-4.201, 51A-4.209, and 51A-13.403 of the Dallas Development Code to allow a parking reduction to provide adequate area for the placement of recycling containers.

**SUMMARY:** The proposed amendments to Chapters 51 and 51A intend to aid in compliance with Section 18-5.1(e) of the Multifamily Recycling Ordinance by providing a parking reduction for multifamily uses to allow for the placement of recycling containers in a parking space if necessary.

**CPC RECOMMENDATION:** Approval.

**STAFF RECOMMENDATION:** Approval.

## **BACKGROUND**

- On January 22, 2018, Sanitation Services briefed the Quality of Life, Arts, & Culture Committee on the City of Dallas Zero Waste Plan. The Committee directed staff to bring back a refined multifamily plan with cost impacts and an implementation plan, and to look at implementing a similar ordinance for all commercial properties concurrently or on a parallel path.
- On May 14, 2018, Sanitation Services briefed the Quality of Life, Arts, & Culture Committee on Universal Access to Recycling: Multifamily and Commercial providing multifamily recycling ordinance recommendations and considerations for a commercial recycling ordinance.
- On June 13, 2018, the City Council passed Ordinance No. 30879, which established Section 18-5.1, "Collection and Removal of Recyclable Materials from Multifamily Sites," of Chapter 18, "Municipal Solid Wastes," of the Dallas City Code. This ordinance, also referred to as the Multifamily Recycling Ordinance, requires all multifamily properties with eight or more dwelling units to provide recycling services to their tenants and employees beginning on January 1, 2020. (see APPENDIX 1)
- The Multifamily Recycling Ordinance also indicates that minimum parking required for a multifamily site may be reduced in order to provide adequate space for recycling containers. However, this parking reduction must be reflected in Chapters 51 and 51A.
- On October 17, 2019, the Zoning Ordinance Advisory Committee (ZOAC) considered amending Chapters 51 and 51A of the Dallas Development Code to allow a parking reduction for multifamily uses in order to provide adequate area for the placement of recycling containers and voted to recommend the proposal of a parking reduction of one space to City Plan Commission (CPC).
- On November 21, 2019, CPC considered the proposed amendment and moved to return the amendment to ZOAC in order to allow staff to obtain information from members of the Apartment Association of Greater Dallas (AAGD) to support their representative's proposal of the need for a reduction of three required spaces.
- The Office of Environmental Quality and Sustainability, in conjunction with the AAGD, provided background information with additional technical requirements for siting, a breakdown of multi-family facilities, mapping and photos of container location, and some recent data concerning local and national trends in multi-family parking. (see APPENDIX 2)
- On January 23, 2020, and February 6, 2020, ZOAC considered this item and on February 6, 2020 voted to approve a parking reduction for multifamily uses based on a tiered approach and recommended to move it to CPC.

- On March 5, 2020, the City Plan Commission (CPC) considered the proposed amendment and recommended approval of the ZOAC recommendation.
- On June 15, 2020, the Transportation and Infrastructure Committee was briefed on the proposed amendment and recommended forwarding it to City Council for consideration.

**GENERAL INFO/STAFF ANALYSIS:**

The proposed amendment to Chapters 51 and 51A intends to aid in compliance with Section 18-5.1(e) of the Multifamily Recycling Ordinance by providing for a parking reduction when necessary.

**Chapter 18 SEC.18-5.1 COLLECTION AND REMOVAL OF RECYCLABLE MATERIALS FROM MULTIFAMILY SITE.**

- (e) Parking reduction. Minimum parking required for a multifamily site may be reduced in order to provide adequate space for recycling containers.

Although Chapter 18 refers to a parking reduction, without amending Chapters 51 and 51A to allow for a parking reduction, a multifamily property owner wanting to use required parking spaces to place recycle containers, as referenced in Section 18-5.1(e), would have to go to the Board of Adjustment (BDA) to request a special exception to the number of parking spaces required for that site.

**PROPOSAL:**

The proposal recommends a tiered approach to the number of required parking spaces that may be reduced for the placement of recycle bins based on the number of dwelling units on each site as follows:

<u>No. of dwelling units</u>	<u>No. of required parking spaces reduced</u>
8 - 100	up to 3
101 - 400	3% or maximum 6, whichever is less
401+	up to 9

The parking reduction will only be applicable to properties built prior to the passage of this ordinance.

This amendment is intended to help existing site constrained properties built before the Recycle ordinance was approved. Future developments have the opportunity to design their sites adhering to the recycle regulations along with the zoning regulations applicable to their site.

**CPC ACTION**

**March 5, 2020**

**Motion:** It was moved to recommended **approval** of the Zoning Ordinance Advisory Commission recommendations amending Sections 51-4.201, 51A-4.209, and 51A-13.403 of the Dallas Development Code to allow a parking reduction to provide adequate area for the placement of recycling containers.

Maker: MacGregor  
Second: Murphy  
Result: Carried: 15 to 0

For: 15 - MacGregor, Hampton, Stinson, Johnson, Shidid, Carpenter, Jackson, Blair, Jung, Housewright, Schultz, Schwope, Murphy, Garcia, Rubin

Against: 0  
Absent: 0  
Vacancy: 0

**Speakers:** None

**CPC Recommended Amendments**

ORDINANCE NO. \_\_\_\_\_

An ordinance amending Chapter 51, "Dallas Development Code: Ordinance No. 10962, as amended," and Chapter 51A, "Dallas Development Code: Ordinance No. 19455, as amended," of the Dallas City Code by amending Sections 51-4.201, 51A-4.209, and 51A-13.403; providing a parking reduction for multifamily properties to accommodate recycling containers; providing a penalty not to exceed \$2,000; providing a saving clause; providing a severability clause; and providing an effective date.

WHEREAS, the city plan commission and the city council, in accordance with the Charter of the City of Dallas, the state law, and the ordinances of the City of Dallas, have given the required notices and have held the required public hearings regarding this amendment to the Dallas City Code; Now, Therefore,

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF DALLAS:

SECTION 1. That Subparagraph (C) of Paragraph (3), "Multiple-Family," of Subsection (b), "Specific Residential Uses," of Section 51-4.201, "Residential Uses," of Division 51-4.200, "Use Regulations," of Article IV, "Zoning Regulations," of Chapter 51, "Dallas Development Code: Ordinance No. 10962, as amended," of the Dallas City Code is amended to read as follows:

"(C) Required off-street parking:

(i) One space for each bedroom with a minimum of one space per dwelling unit. An additional one-quarter space per dwelling unit must be provided for guest parking if the required parking is restricted to resident parking only. No additional parking is required for accessory uses that are limited principally to residents.

(ii) The number of off-street parking spaces required under this subparagraph may be reduced to provide adequate area for the placement of recycling containers in accordance with Section 18-5.1(e) according to the following table:

<u>No. of Dwelling Units</u>	<u>No. of Required Parking Spaces Reduced</u>
<u>8 -100</u>	<u>3</u>
<u>101 – 400</u>	<u>3% or 6, whichever is less</u>
<u>401 +</u>	<u>9</u>

This parking reduction only applies to structures built before August 12, 2020.”

SECTION 2. That Subparagraph (C) of Paragraph (5), “Multifamily,” of Subsection (b), “Specific Uses,” of Section 51A-4.209, “Residential Uses,” of Division 51A-4.200, “Use Regulations,” of Article IV, “Zoning Regulations,” of Chapter 51A, “Dallas Development Code: Ordinance No. 19455, as amended,” of the Dallas City Code is amended to read as follows:

“(C) Off-street parking.

(i) Required off-street parking: One space per bedroom with a minimum of one space per dwelling unit. An additional one-quarter space per dwelling unit must be provided for guest parking if the required parking is restricted to resident parking only. No additional parking is required for accessory uses that are limited principally to residents.

(ii) The number of off-street parking spaces required under this subparagraph may be reduced to provide adequate area for the placement of recycling containers in accordance with Section 18-5.1(e) according to the following table:

<u>No. of Dwelling Units</u>	<u>No. of Required Parking Spaces Reduced</u>
<u>8 -100</u>	<u>3</u>
<u>101 – 400</u>	<u>3% or 6, whichever is less</u>
<u>401 +</u>	<u>9</u>

This parking reduction only applies to structures built before August 12, 2020.”

SECTION 3. That Section 51A-13.403, “Parking Reductions,” of Division 51A-13.400, “Parking Regulations,” of Article XIII, “Form Districts,” of Chapter 51A, “Dallas Development Code: Ordinance No. 19455, as amended,” of the Dallas City

Code is amended by adding a new Subsection (j), "Multifamily Recycling Containers," to read as follows:

**“(j) Multifamily Recycling Containers.**

The number of off-street parking spaces required for multifamily uses may be reduced to provide adequate area for the placement of recycling containers in accordance with Section 18-5.1(e) according to the following table:

<u>No. of Dwelling Units</u>	<u>No. of Required Parking Spaces Reduced</u>
8 -100	3
101 – 400	3% or 6, whichever is less
401 +	9

This parking reduction only applies to structures built before August 12, 2020.”

SECTION 4. That a person violating a provision of this ordinance, upon conviction, is punishable by a fine not to exceed \$2,000.

SECTION 5. That Chapters 51 and 51A of the Dallas City Code shall remain in full force and effect, save and except as amended by this ordinance.

SECTION 6. That any act done or right vested or accrued, or any proceeding, suit, or prosecution had or commenced in any action before the amendment or repeal of any ordinance, or part thereof, shall not be affected or impaired by amendment or repeal of any ordinance, or part thereof, and shall be treated as still remaining in full force and effect for all intents and purposes as if the amended or repealed ordinance, or part thereof, had remained in force.

SECTION 7. That the terms and provisions of this ordinance are severable and are governed by Section 1-4 of Chapter 1 of the Dallas City Code, as amended.

SECTION 8. That this ordinance shall take effect immediately from and after its passage and publication in accordance with the provisions of the Charter of the City of Dallas, and it is accordingly so ordained.

**APPENDIX 1**

**SEC. 18-5.1. COLLECTION AND REMOVAL OF RECYCLABLE MATERIALS FROM MULTIFAMILY SITES.**

(a) General regulations. The owner of a multifamily site shall:

(1) provide single stream, dual stream, or valet recycling through persons holding a multifamily site recycling collection service permit pursuant to Article IV-a of this chapter.

(2) provide recycling container(s) through persons holding a multifamily site recycling collection service permit pursuant to Article IV-a of this chapter.

(3) provide and place recycling containers in locations within visibility of waste containers. If valet trash service is provided, the recycling service should be of a similar nature. If trash chute rooms or trash rooms are utilized, then the recycling service should be of a similar nature or should be as convenient for the tenant, such as placing a recycling container adjacent to the trash chute, if there is adequate space.

(4) provide information (e.g. posters, signs) in suitable common areas, such as mail rooms and laundry facilities, that discusses how to recycle at the property, including information on the types of recyclable materials that are acceptable using photos or images, the chasing arrows recycling symbol, locations of recycling containers, and onsite contact information to report overflowing recycling containers and contamination. If the property utilizes valet recycling collection services, then only information regarding how to recycle and materials accepted is required.

(5) educate each tenant on recycling program implementation upon lease commencement and biannually thereafter of the following:

(A) the multifamily site provides access to recycling in accordance with [Chapter 18](#) of the Dallas City Code;

(B) location of recycling containers;

(C) types of recycling materials accepted;

(D) information related to proper recycling practices, including that cardboard boxes should be broken down before placed in recycling containers;

(E) onsite contact information to report overflowing recycling containers and contamination; and

(F) information on how to report waste or recycling problems to the City of Dallas, utilizing 3-1-1, the 311 app or submitting an online service request.



(6) inform each tenant within 30 days of any significant change in recycling services to the multifamily site.

(7) for multifamily sites offering back-of-house and valet recycling, provide biannual training (or within 30 days of new employee start date) to those collecting recyclable materials of the following:

(A) types of clean and empty materials accepted in recycling containers;

(B) instruction to break down cardboard boxes before depositing into recycling containers serviced by a permitted multifamily site recycling collection service business;

(C) for multifamily sites providing valet recycling, instruction to empty plastic bags before depositing contents into recycling containers serviced by permitted multifamily site recycling collection service businesses and instruction to place plastic bags into waste or garbage containers to be landfilled;

(D) location of recycling containers; and

(E) onsite contact information for reporting overflowing recycling containers and contamination.

(8) submit an annual recycling plan to the director of sanitation as set forth in Subsection (g) of this section, along with an affidavit of compliance as part of the owner's annual multi-tenant registration or on a form approved by the director of sanitation.

(b) Recyclable materials for collection. The owner of a multifamily site must provide collection for recyclable materials that are consistent with those materials accepted by the city's residential recycling program, unless otherwise exempted by the director of sanitation.

(c) Recycling collection and capacity. The owner of a multifamily site must provide recycling container collection capacity equal to or greater than 11 gallons per unit, per week.

(d) Recycling containers. A recycling container must:

(1) be a roll cart, bin, wheelie bin, dumpster, or compactor. Wheelie bins, dumpsters, and compactors larger than two yards may have restricted access to prevent gross contamination; and

(2) comply with screening and other applicable regulations in the Dallas Development Code, as amended.

(e) Parking reduction. Minimum parking required for a multifamily site may be reduced in order to provide adequate space for recycling containers.

(f) Implementation.

(1) An owner of a multifamily site shall implement a multifamily site recycling program by January 1, 2020.

(2) An owner of a multifamily site applying for a certificate of occupancy after January 1, 2020, shall immediately comply with this section upon issuance of the property's certificate of occupancy and submit a recycling plan with their initial multi-tenant registration application.

(g) Recycling plans.

(1) The owner of a multifamily site shall submit a recycling plan each year, as part of their annual multi-tenant registration application, to the city. Initial recycling plans must be submitted upon the first annual multi-tenant registration after January 1, 2020. Electronic or hard copy of the recycling plan information should be available for inspection on site after January 1, 2020. The recycling plan must include the following information:

(A) name of permitted multifamily site recycling collection service business utilized;

(B) types of materials recycled;

(C) type, size, location(s), and frequency of recycling container(s) collection;

(D) a site map of the property showing current garbage and recycling locations, unless valet recycling service is provided and no community recycling containers are available;

(E) notation of any changes to the multifamily site recycling program in the previous calendar year, including but not limited to changes of the following: multifamily site recycling collection service business utilized or method of collection, if applicable; and

(F) any other information that the director of sanitation deems necessary, and is reasonable, to verify compliance with this ordinance or to enhance program reporting capabilities and other information.

(2) The owner of a multifamily site shall maintain records and examples of materials relevant to meeting the requirements of Section [18-5.1\(a\)\(5\)](#) and make records available if requested by the city manager's designee, or that designee's authorized representative during an on-site inspection.

(3) The director of sanitation may reject a recycling plan if it does not contain the information specified in this section or meet the minimum requirements as defined in this section. The owner of a multifamily site shall submit a revised plan no later than 30 days from notification of the director of sanitation's determination to reject the plan.

(h) Inspection. For any multifamily site, the city manager's designee, or that designee's authorized representative, may conduct an inspection for compliance with this section and verify the site's provision of access to recycling services at any time or when an inspection under Section [27-42](#), of [Chapter 27](#) of the Dallas City Code, as amended, is conducted, even if the multifamily site is not a rental property, as defined in [Chapter 27](#) of the Dallas City Code, as amended.

(i) Exemptions and Implementation Extension.

(1) Section [18-5.1](#)(a)(8) does not apply to multifamily sites that have a current contract with the City of Dallas to receive recycling collection services from the city.

(2) The owner of a multifamily site may submit to the director of sanitation, within 90 days of required recycling program implementation, a written request for an implementation extension and/or exemption from all or specific provisions of the regulations of this section because of the owner's inability to comply. The director of sanitation will conduct a thorough evaluation on whether the owner demonstrated an inability to comply with the ordinance. The owner will receive a determination by the director of sanitation in writing within 60 days. The director of sanitation's decision will be final. (Ord. [30879](#))

## APPENDIX 2

### Technical Considerations:

- **Requirements of Multi-family Recycling Ordinance:** Section 18-5.1 Collection of Recyclable materials from Multi-Family Sites was passed under City Ordinance 30879 on June 13, 2018, with a target date of January 1, 2020 for initiating compliance. This ordinance requires multi-family properties with more than 8 units to provide to their tenants:
  - Recycling service by single stream, dual-stream or valet recycling in the minimum amount of at least 11 gallons per unit;
  - Recycling containers in well-marked locations, optimally near existing solid waste containers;
  - Education (posters, signage, flyers, etc., concerning the program to their tenants, including recyclable materials, how to recycle (box breakdown, plastic numbers, etc.), who to contact at the property for complaints or concerns, and how to report issues to the City of Dallas; and submit to the City
  - An Annual Recycling Plan, including container sizes and locations, site maps and registered hauler information provided with the properties' annual update to the existing multi-family database, managed by the Code Services Department.

Compliance under this ordinance will be assessed by the Code Compliance Department as part of the existing Multi-family facility inspection process.

The City has established a website to support this process, <https://dallascityhall.com/departments/sanitation/Pages/multifamilyrecycling0.aspx> to assist the property managers to connect with registered haulers, to obtain more information on the registration process and ordinance requirements. To date, there are sixteen waste haulers that have registered on this website to provide this service.

It should be noted that Section 18-5.1(e) of the Multi-Family Recycling Ordinance, explicitly allows reductions of the minimum parking requirements, and does not limit the number(s) of spaces that may be reduced for this purpose: "Parking reduction. Minimum parking required for a multi-family site may be reduced in order to provide adequate space for recycling containers."

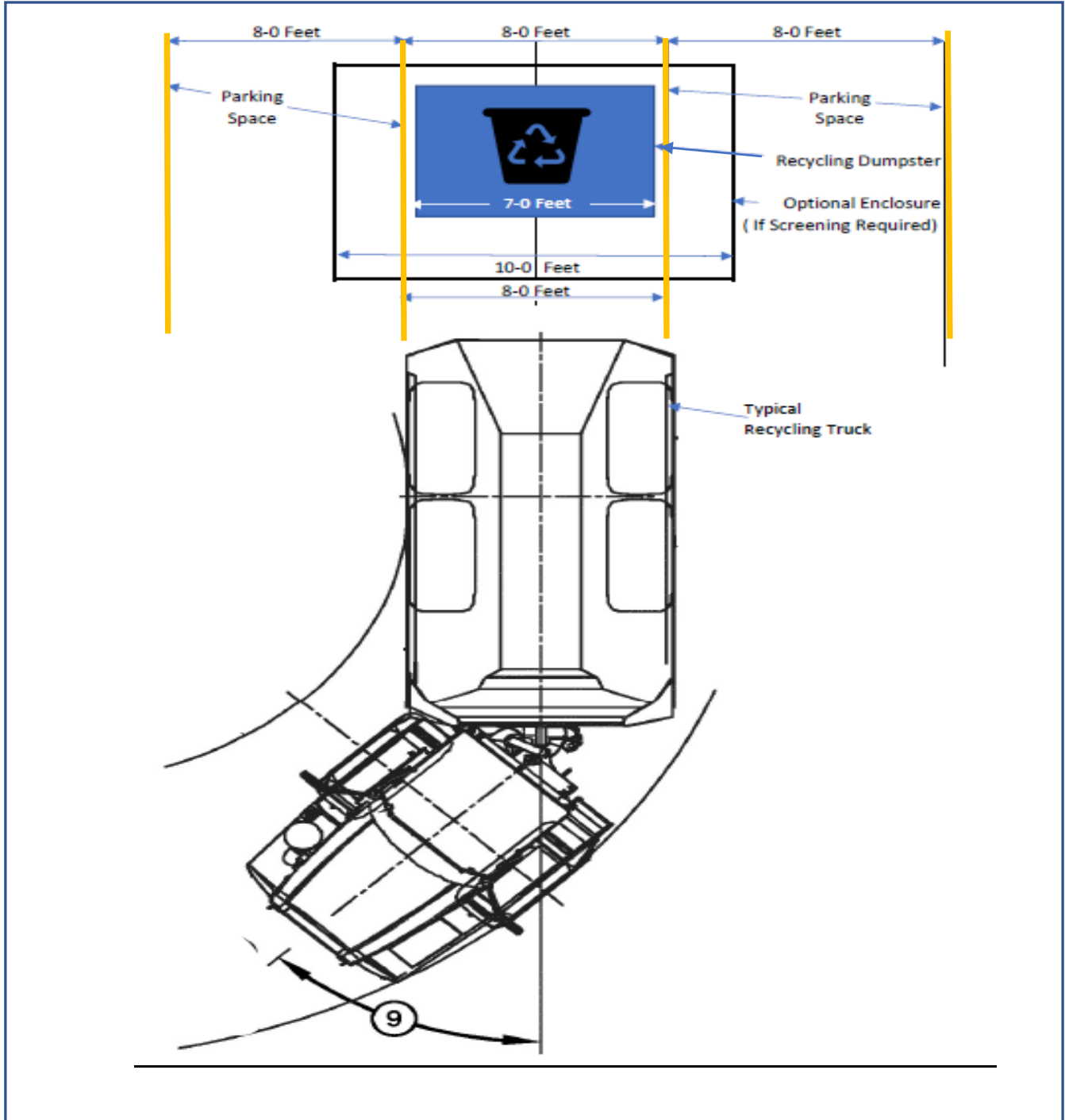
- **Methods for compliance:** The multi-family facility management has options of providing service through their existing solid waste contract(s), through a new contract with one of the registered haulers, or service providers. The collection options include 94-gallon roll carts, valet service, wheelie-bins, dumpsters, and compactors. The City's Sanitation Services Department may be able to provide service for smaller facilities through roll carts, or dumpsters, depending upon volumes required (typically smaller volumes). Service can also be provided by sharing services/containers with an adjacent property.
- **Dumpster space requirements:** As indicated in the **Figure 1.0**, there are several physical considerations in play for siting dumpsters for recycling:
  - Most commercially available dumpsters are a minimum of 84-inches (7-feet) in width, and come in 4-, 6- and 8-cubic yard volumes.

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- § 51A-4.301. Off-Street Parking Regulations indicate a standard minimum width for a parking space as 8-feet, with an allowable minimum width of 7.5 feet for no more than 35 percent of the offered parking. This provides a 3- to 6-inch leeway on either side of the dumpster if placed in a single parking space.
- Section 18-5.1 (d) of the Multi-Family Recycling ordinance requires compliance with screening and other applicable Dallas Development Code requirements; a standard dumpster enclosure is 10 feet by 10 feet.
- **Waste Hauler access requirements** (as provided by hauler information):
  - **Equipment dimensions:** Required clearance for front end loading vehicles:
    - Vertical (Approach and Exit): 14 feet High
    - Vertical (When dumping container): 25 feet High
    - Lateral: 8 feet Wide
    - Outside Turning Radius: 78 feet (84 feet in pick-up/service position)
    - Length of Vehicle: 33 feet – (37 feet in pick-up/service position)
  - Because of equipment dimensions and long turning radius, some haulers prefer angling the dumpster to allow better access, particularly in areas with tight driveway access.

- **Figure 1.0** below illustrates the standard angled access configurations as required for waste hauling equipment to access the dumpsters.

**Figure 1.0 Typical Recycling Container Installation in Parking Lot**



- **Figure 2.0** provides photos provided by the haulers through the Apartment Association of Greater Dallas that demonstrate typical placement to help with visualizing both the angled, and perpendicular placement-types.

**Figure 2.0 Existing Multi-family Dumpster Placement**



**Potentially Affected Properties:**

Currently, there are over 2,500 different apartment complexes housing greater than 8 units that are registered in the City of Dallas VGOV multi-family database. This database is maintained by the Code Compliance Services Department, with technical support from the Information Technology Services Department (formerly known as Computer Information Services). While a breakdown of these properties is available by size and location, the actual number of existing parking places at each property is not readily available within this database. Table A provides a breakdown of these properties by size, with recycling volume service requirements, and potential container options to provide this service.

**Table A. Multi-family Complex Breakdown with Recycling Volumes and Service Options**

# Units	# Complexes	Primary Locations	Required Recycling Volume/Week				Container Options					
			Low range (gal/CY)		High range (gal/CY)		Share?	Roll Cart (s)	Valet	4 CY	6 CY	8 CY
3-7 units	exempt	Citywide	33	0.16	77	0.38	Y	1	Y	-	-	-
8-24 units	738	Gaston, Old East Dallas, North Oak Cliff, Oak Lawn	88	0.44	264	1.31	Y	1-3	Y	-	-	-
25-49 units	248	Gaston/Old East Dallas	275	1.36	539	2.67	N	3-6	Y	1	-	-
50-100 units	236	Webb Chapel, Vickery Meadow, Ft Worth Ave, Polk	550	2.72	1,100	5.45	N	6-12	M	1-2	1	-
101+ units	1,279	Downtown, Uptown, Northeast Dallas, North Dallas, Redbird, Ft Worth Ave	1,111	5.50	>1,111	NA	N	NA	M	2+	1+	M

2,501

Data Source: City of Dallas. 2019. VGov Multi-Family Dbase

These data indicate that largest sector of the multi-family complexes in Dallas contains more than 101 units; however, there is also an approximate even-split between the numbers of complexes with more- and less than 100 units. Additionally, it is apparent that most of the smaller facilities (less than 25 units) may be able to provide the required recycling capacity through 1- or more 94-cubic yard carts, or by sharing service with adjacent properties. The threshold for potentially needing to upsize from a roll cart system to a dumpster appears to be at about 50 units.

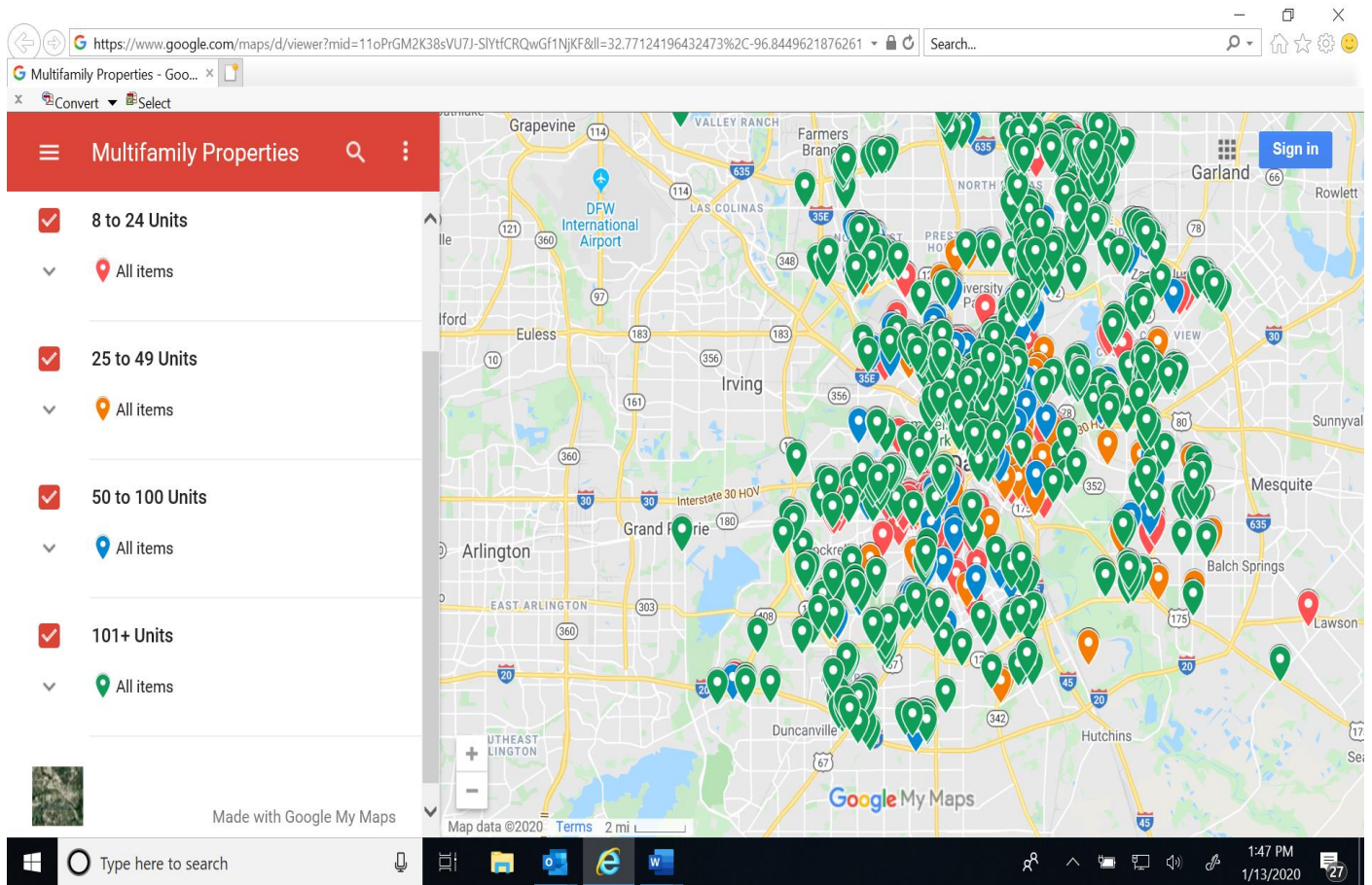
While we have had no requests for parking variance at this time, we anticipate that older facilities with between 50- and 100- units may be facilities that would likely require relief from parking minimum requirements to allow recycling service. This is because of required recycling volumes that may require use of a dumpster, coupled with age of construction, with smaller associated parking facilities (eg, constructed before current parking minimums were put in place). There may be an equity consideration for some facilities, because of the prevalent location of older mid-sized multi-family residences in locations with lower economic demographic characteristics.

- **Figure 3.0**, provides a mapped distribution of the multi-family property locations across the City, showing a fairly-well dispersed siting, with heavier concentrations in Uptown, Oak Cliff, and Far East Dallas. A link to this mapping that allows map layer viewing by facility size is:

<https://drive.google.com/open?id=11oPrGM2K38sVU7J-SIYtfCRQwGf1NjKF&usp=sharing>

### Figure 3.0 Multi-Family Property Locations





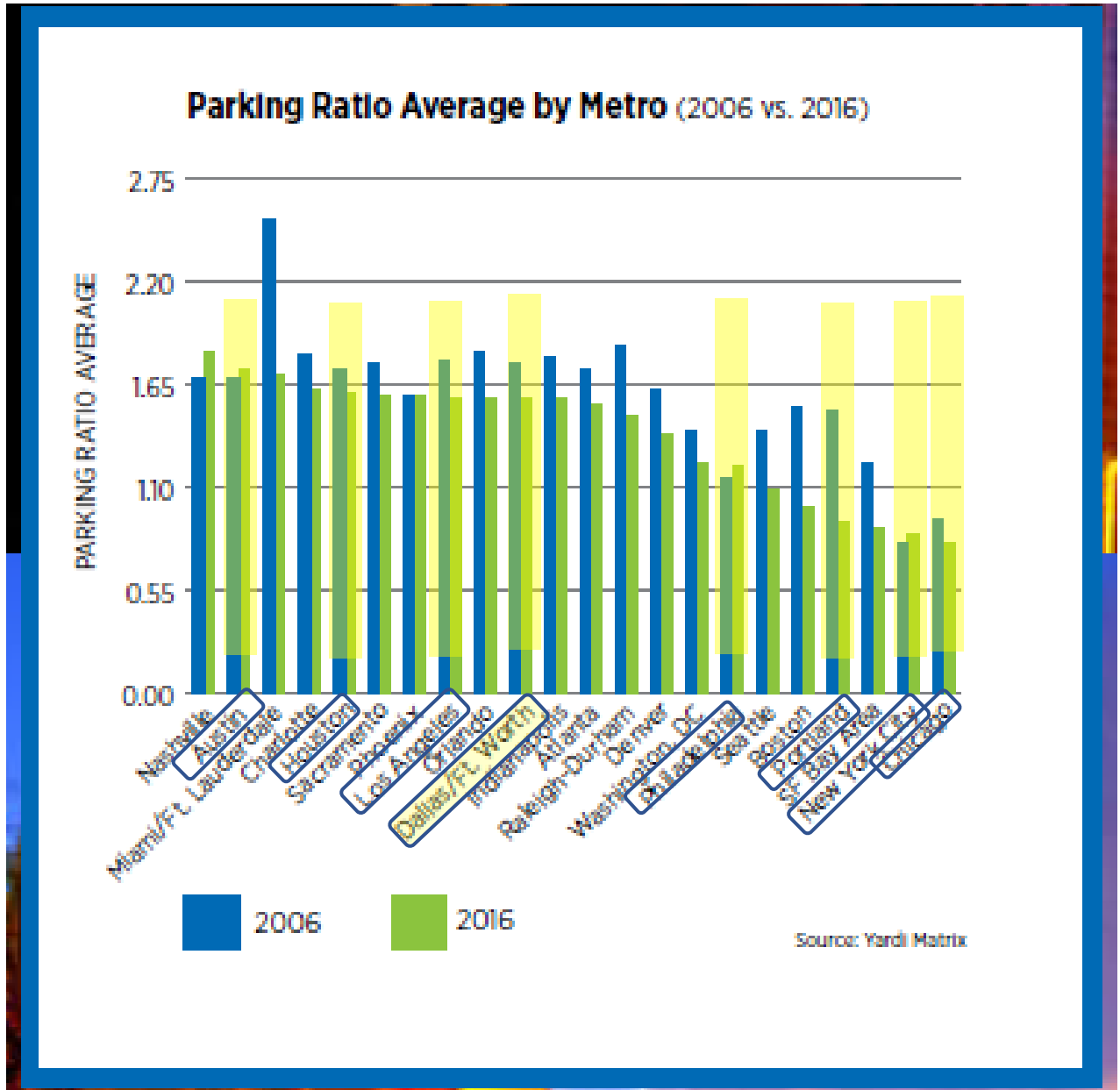
Data Source: City of Dallas. 2019. VGov Multi-Family Dbase.

**Potential Impacts of Implementation to Existing Multi-Family Facilities**

The allotted number of required parking spaces for each of the facilities currently registered in the VGov multi-family facility database is largely unknown. Neither the Dallas Housing Authority, nor the Apartment Associated of Greater Dallas (AAGD) have this information for their participating properties. Therefore, the numbers of parking places, required parking places and additional parking places provided in excess of the required parking minimums are not known at this time. A literature search was performed in order to better understand the potential impacts of implementing relief to the parking minimums for multi-family properties affected by this ordinance. A recent report performed for the National Apartment Association (NAA) provided a good national summary of trends in parking facilities associated with multi-family developments, vehicle ownership, and parking ratios.

- Figure 4.0 was developed by Yardi Matrix in the NAA study and allows comparison of City of Dallas parking ratios against several of our benchmark peer cities.

**Figure 4.0. Parking Ratio Average by Metro**



**Figure 4.0 Data source:** NAA.2018. The Transformation of Parking. Multiple Factors are Converging to Disrupt Everything we know about Parking. Available at: [https://www.naahq.org/sites/default/files/naa-images/Research/naa\\_parking\\_final\\_revised\\_sep\\_2018.pdf](https://www.naahq.org/sites/default/files/naa-images/Research/naa_parking_final_revised_sep_2018.pdf)

The circled/highlighted cities in the above graph are considered peer cities in several ongoing City of Dallas planning efforts. These data generally indicate reductions in parking minimums in the 10-year period between 2006 and 2016. Additionally, while Dallas is generally mid-range for these requirements, four of our seven

benchmark cities (Philadelphia, Portland, New York City and Chicago) have significantly lower parking ratios than Dallas.

Available data from this national assessment of changes to multi-family parking and vehicle use, the North Central Texas Council of Governments, Dallas Area Rapid Transit and the City's effort to update the Strategic Mobility Plan were compiled to better understand transportation mode-shift, and potential impacts to parking requirements and use related to multi-family developments. **Table B** summarizes these data concerning utilization of parking provided at existing locations.

**Table B. Summary of Parking Utilization at Existing Multi-Family Facilities**

<b>Study</b>	<b>Scope</b>	<b>Average % Parking Utilization</b>
The Transformation of Parking <sup>1</sup>	National study of parking minimums, reduction in vehicle ownership, and vehicle ownership in renter-occupied households	60-80%
NCTCOG TOD Parking Study <sup>2</sup>	Study of Parking Utilization in North Texas	~60%
DART <sup>3</sup> TOD Connections	Study of Parking Utilization near Transit-Oriented Development in Dart Service Area	~60%
Connect Dallas Foundations Report <sup>4</sup>	Report of design fundamentals to be used to develop Strategic Mobility Plan; cited data from Dallas Transit-Oriented Development locations	40-60%
<b>Data Sources:</b>		
<sup>1</sup> National Apartment Association. 2018. The Transformation of Parking; Available at: <a href="https://www.naahq.org/sites/default/files/naa-images/Research/naa_parking_final_revised_sep_2018.pdf">https://www.naahq.org/sites/default/files/naa-images/Research/naa_parking_final_revised_sep_2018.pdf</a>		
<sup>2</sup> NCTCOG. 2019. TOD Parking Study. Available at: <a href="https://www.nctcog.org/trans/plan/land-use/parking-management">https://www.nctcog.org/trans/plan/land-use/parking-management</a>		
<sup>3</sup> DART. 2020. references NCTCOG TOD Study		
<sup>4</sup> Kimley Horn. 2019. Connect Dallas – Foundations Report; Available upon request.		

These data indicate national, regional and local trends towards reduced vehicle ownership, potential mode shift away from single-occupied vehicle use, and average utilization of parking that is less than the minimum parking requirements. These data suggest that it may be possible to use up to three parking spaces to support implementation of the recycling ordinance, with minimal adverse impacts.