



REQUEST FOR COMMISSION ACTION
CITY OF INDEPENDENCE
April 11, 2019

Department Sanitation

Director Approval Mike Passauer

AGENDA ITEM Considering adopting ordinances to reduce residential trash collections to one time per week and reducing residential trash rates; and authorize City staff to purchase a used one-ton truck up to \$30,000 for the Sanitation Department to perform brush collections.

SUMMARY RECOMMENDATION City staff recommends adopting the ordinances to reduce residential trash collection to one time per week and reducing the residential trash rates by 2.56%. City staff also recommends the Commission authorize City staff to purchase a used one-ton truck up to \$30,000 for the Sanitation Department to perform brush collections.

BACKGROUND The City of Independence operates all trash collections in the City to include both residential and commercial pickups. Commercial collections are determined by the customers' selection and corresponding rates for number of dumpsters and weekly frequency of pickups. Residential collections are currently performed twice a week per residence for a set flat rate per month. In addition to regular residential trash collections, the Sanitation Department also provides bulk item pickups that are initiated by customer work orders called into the City at no charge to residential sanitation customers.

Currently, Independence and Iola are the only two communities in the area offering twice per week residential pickups. City staff has been in discussions on how the Sanitation Department could operate more efficiently and cost effective while maintaining the level of service to its customers. These discussions have led to an effort to adjust service schedules to reduce residential collections to one time per week.

This goal has been brought into greater focus with the adoption of the Community Based Strategic Plan in 2018. Beautification of the City was one of five key initiatives identified by the community in the strategic plan which includes reduction of residential trash collection frequency and efforts to clean up trash, large waste items and brush in the residential areas within the City.

BUDGET IMPACT The reduction of residential collections to one time per week is projected to provide a Year 1 annual savings of \$61.7k in personnel and operating expenses and a reduction of \$18.5k in residential trash collection revenue. As these service plan

changes will not go into effect until June 2019, the forecasted operating savings for 2019 is \$36k and a residential rate revenue reduction of \$10.8k.

The purchase of a new sanitation truck that was approved in the 2019 budget will now be deferred by a year with the new service plan. This purchase was to be financed over five years with an approved payment amount of \$40.4k in 2019. This capital savings for 2019 will partially be offset by the \$30k purchase of a one-ton truck to perform brush collections that was not previously approved in the 2019 budget. The purchase of the one-ton truck will be made with existing cash balance from the Sanitation Fund.

SUGGESTED MOTION #1 I move to adopt the ordinances as presented to reduce residential trash collections to one time per week and reduce residential trash collection rates.

SUGGESTED MOTION #2 I move to authorize City staff to purchase a used one-ton truck up to \$30,000 for the Sanitation Department to perform brush collections.

SUPPORTING DOCUMENTS

1. Sanitation Service Analysis Report
2. Ordinance to reduce Residential Sanitation collections to one time per week
3. Ordinance to amend Appendix D to reduce residential trash collection rates



CITY OF INDEPENDENCE SANITATION SERVICE ANALYSIS

Executive summary of reduced weekly
Residential trash collection frequency

March 27, 2019

Scope

The scope of this report is to evaluate the operating and financial impact of reducing residential trash collections to one time per week versus the current service schedule of two times per week.

Background

The City of Independence Public Works Department's Sanitation Division operates all trash collections in the City to include both residential and commercial pickups. Commercial collections are determined by the customers' selection and corresponding rates for number of dumpsters and weekly frequency of pickups. Residential collections are currently being performed twice a week per residence for a set flat rate per month. In addition to regular residential trash collections, the Sanitation Division also provides bulk item pickups that are initiated by customer work orders called into the City at no charge to residential sanitation customers.

Currently, Independence and Iola are the only two communities in the area offering twice per week residential pickups. City staff has been in discussions on how the Sanitation Division could operate more efficiently and cost effective while maintaining the level of service to its customers. These discussions have led to an effort to adjust service schedules to reduce residential collections to one time per week.

This goal has been brought into greater focus with the adoption of the Community Based Strategic Plan in 2018. Beautification of the City was one of five key initiatives identified by the community in the strategic plan which includes reduction of residential trash collection frequency and efforts to clean up trash, large waste items and brush in the residential areas within the City.

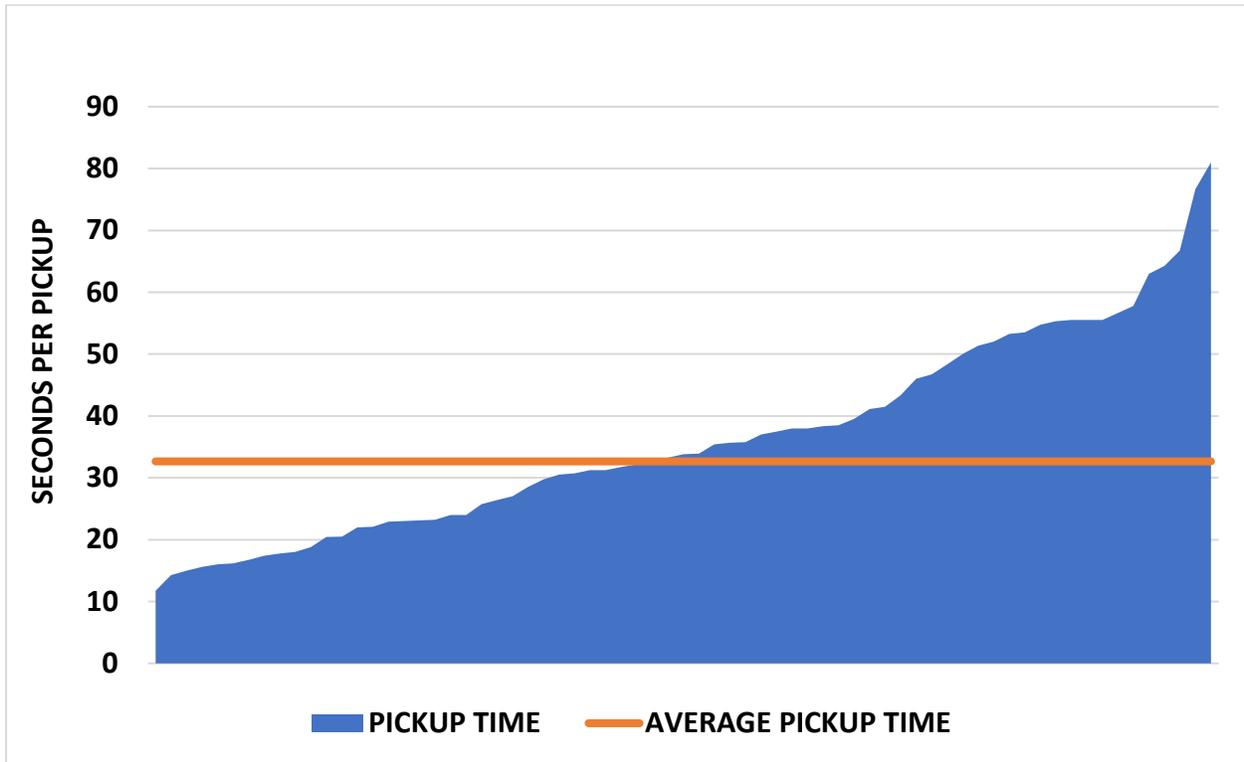
Field Study

The City serves approximately 3,100 residential trash customers and 450 commercial customers, which includes both dumpster and can collections. Sanitation collection operations include three truck crews with two crews primarily handling residential collections and the third crew taking care of the vast majority of commercial pickups, specifically dumpsters.

A field study was performed to gain data to understand the time required to perform pickups and the daily capacity of each crew under the City's current residential service. The field data was collected from a sample size of approximately 16.5% of all residential routes from both residential crews. The study showed that on average each residential stop took 32.65 seconds and 110 stops could be completed per hour. The residential

routes also included about eight commercial dumpsters per crew per day and the average pickup time ranged between three and four minutes per dumpster. Table 1 shows the collection times per stop as collected from the study:

Table 1 – Residential Collection Times per Stop



By moving to once a week pickup, the actual trash volume per pickup will increase over what was observed in the study. A multiplier of 1.5 times was applied to the above referenced times to determine pickup times and hourly capacity for a once a week pickup plan. This increased the average residential pickup time to 49 seconds per stop while reducing the number of pickups to approximately 74 stops per hour.

Service Schedules and Manpower

In the current service plan with two times per week residential collections, the Sanitation Division operates two residential trucks and one commercial truck daily, six days per week. Each crew consists of three team members with a total division staffing of 11 team members which enables everyone to have one day off and provide coverage for vacation and sick leave.

In addition to operating the trash collection routes, the crews pickup bulk item work orders when routes are completed as time allows and handle two hours of recycling on Tuesdays. In the current plan, all brush collections are performed by the Street Division. Table 2 below is the division's current weekly work schedule and manpower requirements:

Table 2 – 2 Day per Week Service – Work Schedule and Manpower Requirements

2X/WEEK PICKUP			SERVICE HOURS PER DAY							ROUTE MANHOURS		
ROUTE	TM	DAYS/ WK	M	TU	W	TH	F	SA	SU	ROUTE HRS/WK	MH/WK	MH/YR
RESIDENTIAL #1	3	6	8.5	8.5	8.5	8.5	8.5	6		48.5	145.5	7566
RESIDENTIAL #2	3	6	8.5	8.5	8.5	8.5	8.5	6		48.5	145.5	7566
COMMERCIAL	3	6	8.5	8.5	8.5	8.5	8.5	6		48.5	145.5	7566
TOTAL										145.50	436.50	22,698

TEAM MEMBER REQUIREMENTS 2 TIMES PER WEEK SERVICE	
REGULAR TIME HOURS	2080
VACATION	(80)
SICK LEAVE	(96)
ADJUSTED REG HOURS	1904
OVERTIME %	5.0%
OVERTIME HOURS	104
TOTAL AVAILABLE HOURS	2008
# TEAM MEMBERS REQ'D	11.30

Based on the field study data, reducing residential service to once a week will require an adjustment to the current schedule and will require more route time on the residential collection days as more trash will be collected per stop. The table below shows the needed route times to move to once a week collection:

Table 3 – Daily Route Hour Requirements – 1 Day per Week Service

RESIDENTIAL TRASH SERVICE - 1 DAY PER WEEK - ROUTE HOURS PER DAY					
TRUCK 1 - RESIDENTIAL	CUSTOMERS/WK	STOPS/DAY	TIME/STOP (SECONDS)	STOPS/HOURS	ROUTE HRS/DAY
RESIDENTIAL/COMM. CAN	1474	491	48.98	73.50	6.68
COMMERCIAL DUMPSTER	24	8	225.00	1.10	0.50
TOTAL	1498	499		74.60	7.18

TRUCK 2 - RESIDENTIAL	CUSTOMERS/WK	STOPS/DAY	TIME/STOP (SECONDS)	STOPS/HOURS	ROUTE HRS/DAY
RESIDENTIAL/COMM. CAN	1474	491	48.98	73.50	6.68
COMMERCIAL DUMPSTER	24	8	225.00	1.10	0.50
TOTAL	1498	499		74.60	7.18

In order to ensure that the crews will be able to handle the additional daily residential volumes, productive hours (route collection hours) were modified to accommodate the additional route time requirements as shown below:

Table 4 – Daily Hours of Productivity for Route Collections

DAILY MANHOURS - PRODUCTIVITY RESIDENTIAL TRASH SERVICE		
	2X/WK	1X/WK
SHIFT HOURS	8.5	9.5
ON-DUTY/JOB BRIEFING	0.25	0.25
BREAK/LUNCH	0.5	0.5
FUELING	0.25	0
MAINTENANCE	0.5	0
LANDFILL	1	1
OFF-DUTY/CLEAN UP	0.25	0.25
WEATHER DELAYS	0.25	0.25
PRODUCTIVE HOURS	5.5	7.25

The reductions in fueling and maintenance times for once a week service will be moved to non-trash route days and/or available time by the commercial truck crew whose route will not be significantly impacted by the change in residential collection frequency. Shift hours were also increased by an hour for trash collection days to account for the additional volume.

The once a week trash collection schedule will include two residential trucks operating three days per week and the commercial truck route that will continue to operate six days per week. All trucks will continue to include three-man crews for trash collection routes. The two residential routes will then split up into two-man crews on Thursdays and Fridays to collect brush, bulk item work orders, and recycling.

The new schedule will allow for the weekly collection of trash but will also provide scheduled time for bulk item work orders and assist the Street Division in the collection of brush. As previously discussed, the brush pickup is performed currently by the Street Division only and bulk item pickups are performed as time allows. The new schedule establishes weekly pickup days for these items and supplements the Street Division's efforts in brush collection which will provide for more effective and efficient service.

This schedule will also allow two sanitation team members to be transferred to back fill two open positions in the Street Division. The one time per week residential collection work schedule and manpower requirements are illustrated in Table 5 below.

Table 5 - 1 Day per Week Service – Work Schedule and Manpower Requirements

1X/WEEK PICKUP			SERVICE HOURS PER DAY							ROUTE MANHOURS		
ROUTE	TM	DAYS/ WK	M	TU	W	TH	F	SA	SU	ROUTE HRS/WK	MH/WK	MH/YR
RESIDENTIAL #1	3	3	9.5	9.5	9.5					28.5	85.5	4446
RESIDENTIAL #2	3	3	9.5	9.5	9.5					28.5	85.5	4446
COMMERCIAL	3	6	8	8	8	8	6	2		40	120	6240
BRUSH TRUCK	2	2				8	4			12	24	1248
BULK TRUCK	2	2				8	4			12	24	1248
RECYCLING	3	2				8	4			12	36	1872
TOTAL										133.00	375.00	19,500

TEAM MEMBER REQUIREMENTS 1 TIME PER WEEK SERVICE	
REGULAR TIME HOURS	2080
VACATION	(80)
SICK LEAVE	(96)
ADJUSTED REG HOURS	1904
OVERTIME %	5.0%
OVERTIME HOURS	104
TOTAL AVAILABLE HOURS	2008
# TEAM MEMBERS REQ'D	9.71

Operational & Capital Cashflow Savings

From a personnel standpoint, the reduction of two team members from the Sanitation Division will provide a reduction in the annual cost of the Division. The new schedule projects an annual reduction of approximately 3,200 manhours. It will be necessary to sell back personnel hours from the Street Division to cover vacation and sick leave in the Sanitation Division. Operationally, the reduction of residential trash collections also cuts the weekly use and mileage on the large sanitation trucks which will reduce fuel and maintenance costs.

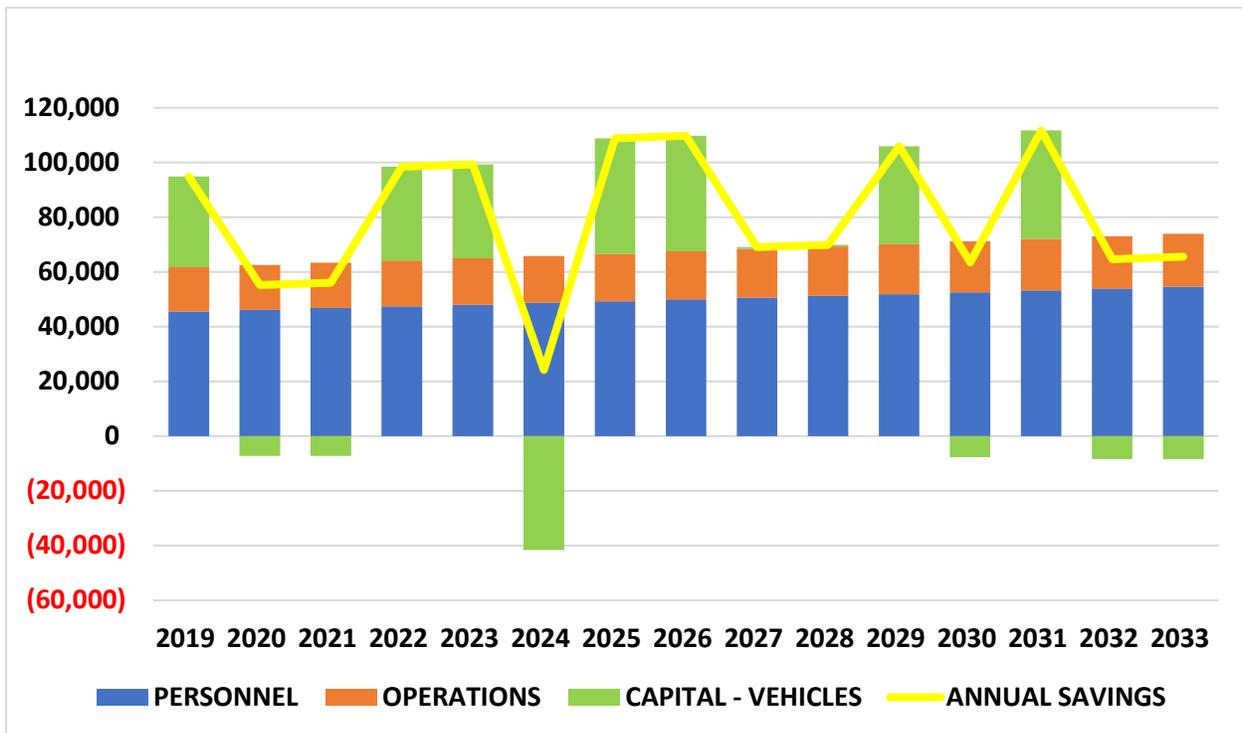
The current division fleet includes five large sanitation trucks and one small sanitation truck. The new schedule will require the addition of a one-ton truck for brush pickup as the Sanitation Division has not previously provided brush collections. Reducing the weekly use of the large sanitation trucks will extend the life of these assets.

Currently, one new large truck is purchased every three years. The new schedule defers the truck purchases to every four years. It is estimated that both the small sanitation truck and the one-ton truck would need to be replaced every 10 years. These truck purchases have previously been made by financing the units for five-years. With all of this in mind,

the need to purchase trucks will not be eliminated; it will, however, provide for annual cashflow savings by deferring the timeframe of the purchase of the units.

In total, moving to one time per week residential trash service would project a Year 1 cashflow savings of nearly \$95,000 for the Sanitation Division. Table 6 below shows the annual savings forecasted out over 15 years for personnel, operations, and capital outlay cashflow. The projection assumes an annual inflation rate of 1.3% and all capital equipment purchases are financed for five years.

Table 6 – Projected Annual Cost and Capital Cashflow Savings



Revenue Considerations

There could be a public argument that since residential collection frequency has been reduced to once a week and operational expenses have been reduced, a rate reduction for residential services should also be implemented. Although the frequency of residential collections would be reduced to once per week, it is important to understand that the same amount of trash will be collected weekly.

The Sanitation Division has also been providing several community dumpsters throughout the City for refuse and clean up purposes based on the Beautification initiative which is adding additional landfill charges. It is being proposed that these community dumpster access sites throughout the City be continued in a smaller scale – one or two weekends per month – going forward to further assist with the clean up of the City’s residential areas.

Additionally, the new schedule will provide for expedited performance of existing services in brush and bulk item collection and recycling with scheduled days for these services.

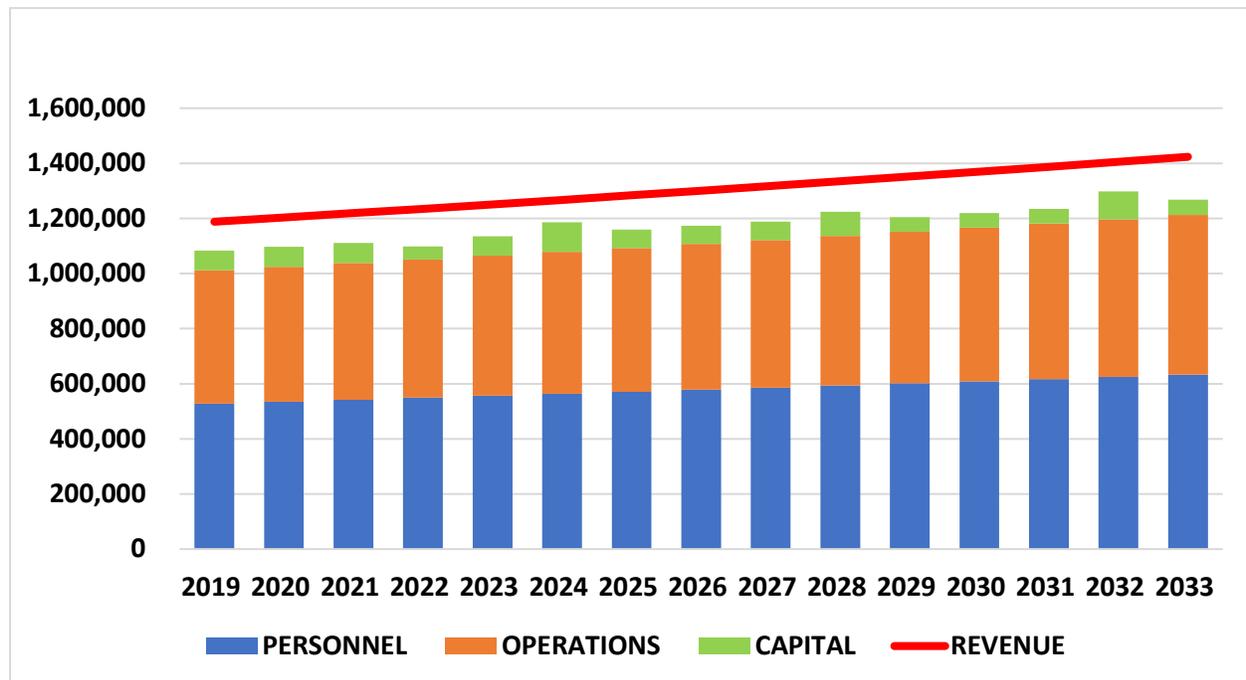
The projected savings will also allow the Sanitation Division to grow cash balances to fund future service initiatives such as establishing a poly cart program, construction of a new Sanitation facility and paying cash for capital equipment purchases instead of incurring the costs of financing.

Should a residential rate reduction be put in place, the reduction should only be based on personnel and operational savings. The reason for not including capital savings is due to the fact that vehicle capital purchases are not being eliminated, but rather being deferred by moving to a one time per week residential collection schedule. Taking the Year 1 operational savings times a target 30% operating margin would equate to a residential rate reduction of 2.56% or approximately \$18,500 in Year 1 of the new operating schedule.

Projected Financial Performance

Taking the above Year 1 changes and applying those figures into the 2019 Sanitation budget, total operating margin would improve to \$176,500 (14.9%) with projected overall operating cashflow after capital expenditures at \$104,400 (8.8%). These balances assume that the above referenced residential rate reduction is put into place as well as making adjustments for landfill charges and tonnage based on the Beautification initiatives. A 15-year financial performance of the Sanitation Division is shown in Table 7, assuming all revenues and expenses are increased by an annual inflation rate of 1.3% after Year 1.

Table 7 – Projected Annual Financial Performance



Future Initiatives

This analysis has focused on the change of the City's existing trash collection practices and reducing the residential service frequency. There are other collections options that can be considered and analyzed in the future to include the implementation of a City-wide residential poly-cart program, which would require truck upgrades or purchase of new trucks and contracting out residential and/or commercial trash collection services. These options could further address and enhance the areas outlined below:

- Safety
- Beautification
- Efficiency
- Additional cost savings
- Additional collection rate savings

Recommendation

Based on this analysis, it is recommended to move forward with the implementation of the one time per week residential collection schedule as presented and reducing the residential collection rates by 2.56% beginning in June 2019 and then increasing both commercial and residential collection rates at the annual CPI rate every year thereafter beginning in 2021. The annual CPI rate would be based on the most recently available trailing twelve months' average CPI compared to the twelve months preceding. The annual collection rate changes would be put in place every January beginning in 2021.

In the event the CPI would be negative in any given year, the prior year rates would remain in place. The collection rate change calculations would remain in place through September 2025 when the current landfill contract expires with Resource Recovery, Inc. At the end of this contract, future rate structures should be re-analyzed.

The above recommendations are based on the analysis performed and resulting annual financial performance of once a week residential trash collection. Should any significant revenue, operational or capital expenditure deviations from the subject analysis projections occur, a new Sanitation analysis should be immediately performed with resulting changes implemented into all trash collection service rates.

It is further recommended to continue the evaluation of future service changes to include the following options:

- Implementation of poly-cart program with retro-fit of existing back equipment for back tilt collections
- Implementation of poly-cart program with new equipment for automated side tilt collections
- Contracting out residential and/or commercial collections

ORDINANCE NO. 4295

**An Ordinance Modifying the
Frequency of Residential Trash Collection**

BE IT ORDAINED by the Governing Body of the City of Independence, Kansas:

Section 1. City Code Section 90-34(a) is hereby amended to read as follows:

(a) All residential refuse, other than bulky wastes, shall be collected once each week. All commercial wastes shall be collected at least once each week, or at more frequent intervals as may be fixed by the sanitation officer upon a determination that more frequent collections are necessary for the preservation of the health or safety of the public, and general appearance.

Section 2. This Ordinance shall take effect upon its publication in the official City newspaper.

Adopted by the Governing Body of the City of Independence, Kansas, on the 11th day of April, 2019.

LOUIS YSUSI, Mayor

ATTEST:

DAVID W. SCHWENKER, City Clerk

ORDINANCE NO. 4296

**An Ordinance Amending Appendix D, Chapter 90,
Solid Waste Rates for Residential Properties**

BE IT ORDAINED by the Governing Body of the City of Independence, Kansas:

Section 1. Effective June 1, 2019, the solid waste rates found in Appendix D, Chapter 90, for residential properties is amended to the following:

Chapter 90. Solid Waste

(1) Residential:

- a. Single-family household unit:
 - 1. Location of container not more than 20 feet from street or alley, per month, per unit.....\$18.95
 - 2. Location of container more than 20 feet from street or alley, per month, per unit.....\$25.38
 - 3. Unoccupied or vacant single family household unit for which water service has not been disconnected, per month, per unit.....\$11.28

- b. Hardship rates:
 - 1. Location of container not more than 20 feet from street or alley, per month, per unit.....\$14.21
 - 2. Location of container more than 20 feet from street or alley, per month, per unit.....\$19.06

Section 2. This Ordinance shall take effect on June 1, 2019, or its publication in the official City newspaper, whichever date is later.

*Adopted by the Governing Body of the City of Independence, Kansas, on the 11TH day of
April, 2019.*

LOUIS YSUSI, Mayor

ATTEST:

DAVID W. SCHWENKER, City Clerk