City of Dallas

Update on Sanitation Refuse & Recycle Collection Procedures

Quality of Life, Arts & Culture
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Presentation Overview

- Purpose
- Background
- Current Collection Procedures
- Cost Considerations
- Future Considerations
- Next Steps

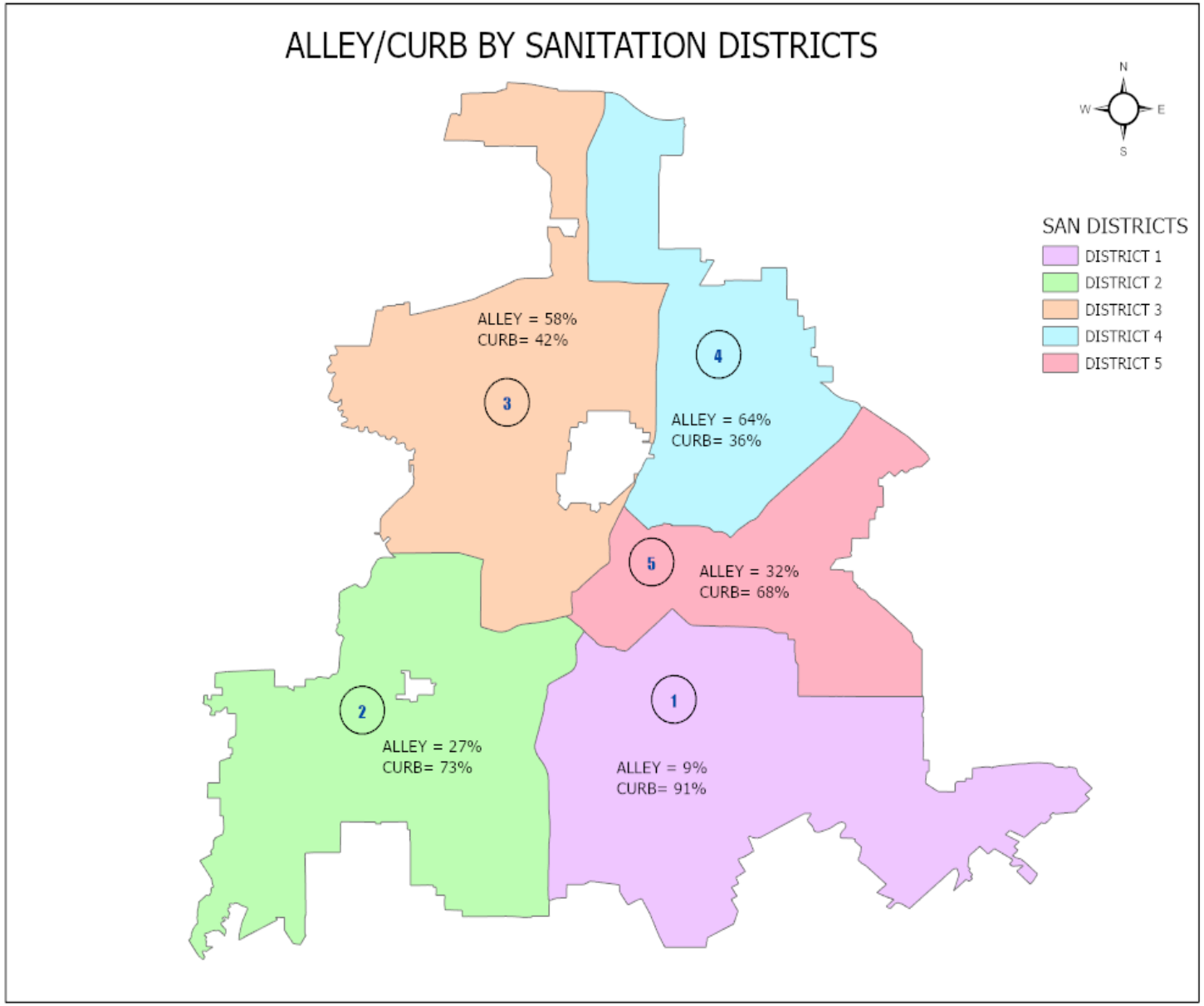
Purpose

- Provide an overview of the current Sanitation refuse and recycle collection procedures in Dallas
- Address challenges and operational impacts of collections in alleyways
- Outline future considerations and next steps for improving reliability and sustainability of sanitation services

Background

- Refuse and recycle collections are provided weekly to approximately 258,000 customer locations in Dallas
- 62% of collections occur curbside, 38% in alleys
- Alleys vary in width (generally 8-10 ft) and condition, with some being gravel or unimproved
- Routes and equipment allocation optimized for service efficiency in December 2022

Background


ALLEY/CURB BY SANITATION DISTRICTS
N
W
E
S
SAN DISTRICTS
DISTRICT 1
DISTRICT 2
DISTRICT 3
DISTRICT 4
DISTRICT 5
ALLEY = 58%
CURB= 42%
3
4
ALLEY = 64%
CURB= 36%
5
ALLEY = 32%
CURB= 68%
2
ALLEY = 27%
CURB= 73%
1
ALLEY = 9%
CURB= 91%

Current Collection Procedures

- Curbside collection (~160,000 locations)
  - Best practice for residential solid waste collections
  - Primarily serviced by automated side load trucks (~50% of fleet)
    - 1 driver/operator
    - Typically up to 233 collections per hour in most areas
  - More maneuverable for larger trucks
  - Primary hazards are mailboxes and parked cars
  - Cart assistance provided for physically disabled customers

Current Collection Procedures

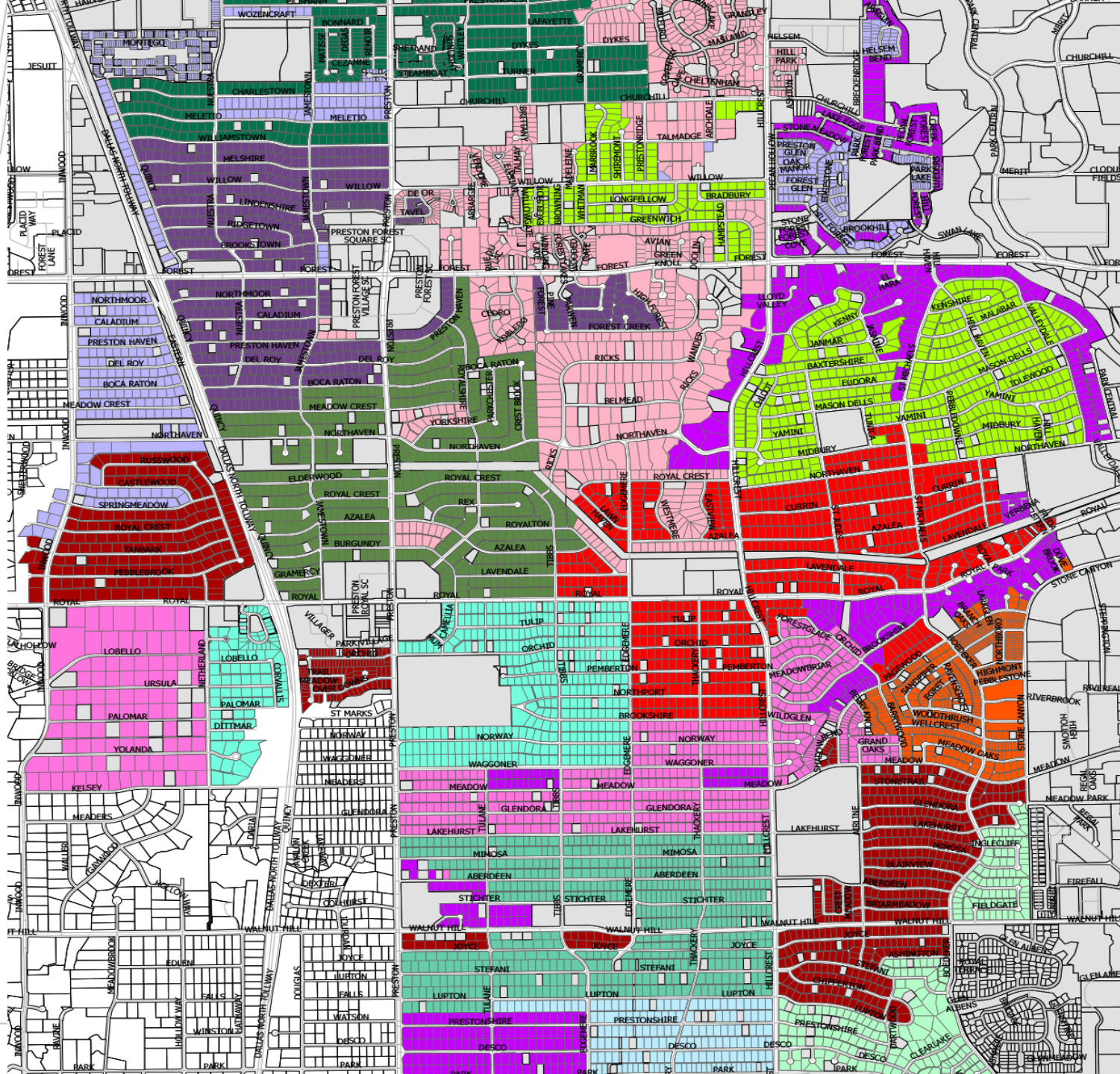
- Alleyway collections (~98,000 locations)
  - Legacy service pre-dating modern solid waste management best practices
  - Primarily serviced by rear-load trucks (~50% of fleet)
    - 1 driver, 2 helpers (contracted temporary laborers)
    - Typically 125 collections per hour in most areas
  - Alley pavement and right-of-way often too narrow for trucks to operate appropriately, and for carts to be placed in compliance with regulations
  - Hazards include extreme heat and cold, overhead utility lines, gas meters, retaining walls, embankments, fences, and ruts
  - Alleyway Service Criteria provides decision criteria for changing point-of-service to curb *(see Appendix A)*

Current Collection Procedures

Common Alley Conditions

Current Procedures

- Typical route map
  - Colors represent different routes on a service day in one district
  - Many routes are noncontiguous in order to match with trucks that can fit in alleyways



Cost Comparison

Equipment Acquisition Costs

Expense	Automated Side-Load Truck	Rear-Load Truck
Average Approximate Purchase Price	$380,000	$200,000

Annual Operating Costs

Expense	Automated Side-Load Truck	Rear-Load Truck
FY23 Average Operating Labor Cost, Per Truck	$63,000	$147,000
FY23 Average Target Maintenance Cost, Per Truck	$67,393	$47,637
FY23 Average Non-Target Maintenance Cost, Per Truck	$823	$4,320
FY23 Approximate Labor & Maintenance Costs For All Trucks	**$11,208,428**	**$18,117,376**

Ancillary Operating Costs

Expense	Automated Side-Load Truck	Rear-Load Truck
FY23 Total 3rd Party Payments Due To Claims Associated With Sanitation Trucks	$86,183	$149,976

Future Considerations

- Phased implementation of alternative collection methods that boost service reliability and efficiency and enhance the safety for Sanitation workforce
- Increase use of automated collection equipment as rear-load equipment reaches end-of-life
- Aim to service only alleys that are safe and efficient in which to operate

Next Steps

- Gather and integrate feedback from QOLAC to strategically inform and steer future direction
- Further assessment of route conditions, accounting for pavement and right-of-way widths, pavement conditions, vegetation, utilities, other operating constraints
- Develop options for a phased approach for further route efficiencies, including increasing use of automated collection equipment and transitioning collections from narrow alleys

APPENDIX

Appendix A: Alley Service Criteria

Regarding alley collection service, Dallas City Code Section 18-4(b) provides, in part, "except as may be otherwise authorized by the director of sanitation, it shall be unlawful for any person to place any container within any alley within the city."

Sanitation provides residential recycling and garbage collection services from the curbside in front of homes, or from alleyways, by exception, when conditions and route efficiency permits.

In general, Sanitation can safely and efficiently provide service in alleyways that are well maintained and meet current design standards as provided in the Dallas Development Code, Sec. 51A-8.507(b), which provides, in part, that:

- Alleys must have a minimum right-of-way of 15 feet in width.
- Alleys must consist of at least 10 feet of pavement.
- Permanent dead-end alleys are not allowed unless all access is prohibited between the alley and public rights-of-way. Alleys must either intersect with a dedicated public or private undivided street or an existing alley.
- Where an alley intersects a street, a 15-foot visibility triangle (alley sight easement) is required.
- A rollcart must be placed for collection so that there is a minimum clearance of three feet to each side of the rollcart and one and one-half feet to the rear of the rollcart from any fence, gas meter, telephone pole, utility box, tree, shrub, additional collection container, or other potential obstruction. A rollcart must be placed so that its handle faces the dwelling unit (Sec. 18-3(a)(3)(A)).

In addition to the Development Code requirements, in order to meet the requirements for rollcart placement listed above, generally, a minimum 2-foot utility easement abutting the alley right-of-way is required for each side where collections occur. The ground should be at-grade with the pavement to allow crews to wheel rollcarts to the trucks without lifting. The easement requirement may be waived in cases of rear-entry driveway access where all rollcarts on the block may be placed at the edge of the driveway, or where an at-grade fence carve-out exists and meets the clearance requirements. Vegetation must not extend into the right-of-way, and 14 feet of overhead clearance is required.

Sanitation may determine that collections must occur from the curb even when an alleyway meets the conditions stated above. This may be necessary to support routing requirements based on available staff and equipment resources, or when it would be inefficient to provide service in one or several alley segments in an area otherwise serviced from the curb.

In cases where Sanitation currently services alleyways that do not meet the requirements stated above, upon the occurrence of an incident such as downed powerlines or damaged utility poles, damage to a gas meter or utility box, damaged City equipment, having to be towed or backed out under supervision, or repeat minor damage to the right-of-way or private property, Sanitation will suspend alleyway collections at the location and notify customers of a point-of-service change pending further review and remediation of issues impeding Sanitation's safe transit and operations in the alleyway, in accordance with the requirements stated above. A point-of-service change may also be required for customers in the vicinity of the location in order to maintain timely and efficient operations.

Consult Article I of the Dallas Municipal Solid Waste Code for further regulations related to recycling and solid waste collection. The collection rules are summarized and presented in a more user-friendly format on our website at DallasCityHall.com/Sanitation.

Appendix B – Ideal Alley Conditions

Ideal alley pavement and ROW

Appendix C – Common Alley Conditions

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