

# Winter Maintenance Program

2024 - 2025

Department of Public Services



# Overview

The goal of DPS is to remove snow and ice from our roadways in an efficient and rapid manner. This does not always mean pavement will be bare and dry, but it will be passable. While the severity of each winter storm is unpredictable, DPS will continue to work to maintain the highest level of customer service possible while balancing efficiency in snow and ice control.

The Traffic and Roads Operations Division (TROD) of DPS is responsible for coordinating winter roadway safety for approximately 3112 lane miles. These lane miles consist of thoroughfares, bridges, overpasses, side streets, cul-de-sacs and alleyways.



# Snowfall totals: Cincinnati sets record for daily snowfall amount

## > BIGGEST TWO-DAY SNOWFALLS IN CINCINNATI

Rank	Date	Total
6.)	MAR 7-8, 2008	10.7"
7.)	JAN 5-6, 2025	10.6"
8.)	MAR 22-23, 1968	10.5"
9.)	FEB 8-9, 2021	9.8"
10.)	DEC 22-23, 2004	9.4"



WCPO 9 @WCPO

The National Weather Service reports we got a record snowfall of 4.2 inches today, breaking the old record of 3.5 inches set in 1981. In total, CVG saw 10.6 inches over two days. [bit.ly/3DHfHZH](https://bit.ly/3DHfHZH)

9 FIRST WARNING WEATHER

SNOWFALL UPDATE

# 10.6" OF SNOW AT CVG

MOST 2 DAY SNOWFALL IN CINCINNATI SINCE...

10.7" MAR 7 & 8, 2008

@NWSILN

[5:11 PM]...Record Daily Maximum Snowfall Set at Cincinnati, OH...

A record snowfall of 4.2 inches was set at Cincinnati on 01/06/25. This breaks the old record of 3.5 inches set in 1981.

This brings Cincinnati's 2-day total to 10.6 inches.

5:12 PM · 1/6/25 · 17K Views

Hamilton County EMA @HCEMA

Sheriff McGuffey has declared a Level 2 Snow Advisory for Hamilton County. Roads are HAZARDOUS and icy. Only drive if necessary and use extreme caution. All employees should contact their employer to see if they should report to work. Tune to local media for more info. #CincyWX

**Level 2 Snow Advisory**

Issued for Hamilton County by Sheriff Charmaine McGuffey

Roadways are HAZARDOUS. Only those...

## CINCINNATI BATTLES HISTORIC SNOWFALL: CREWS STEADFAST IN SNOW REMOVAL EFFORTS

By Avery Bennett Published on January 08, 2025



## Cincinnati's first snowfall of 2025 almost breaks 1977 record

91.7 WXXU | By Nick Swartzell Published January 6, 2025 at 12:10 PM EST

CLEANUP BEGINS AFTER HISTORIC SNOWFALL

5:59 26°

OAK HILLS LOCAL SCHOOLS: CLOSED

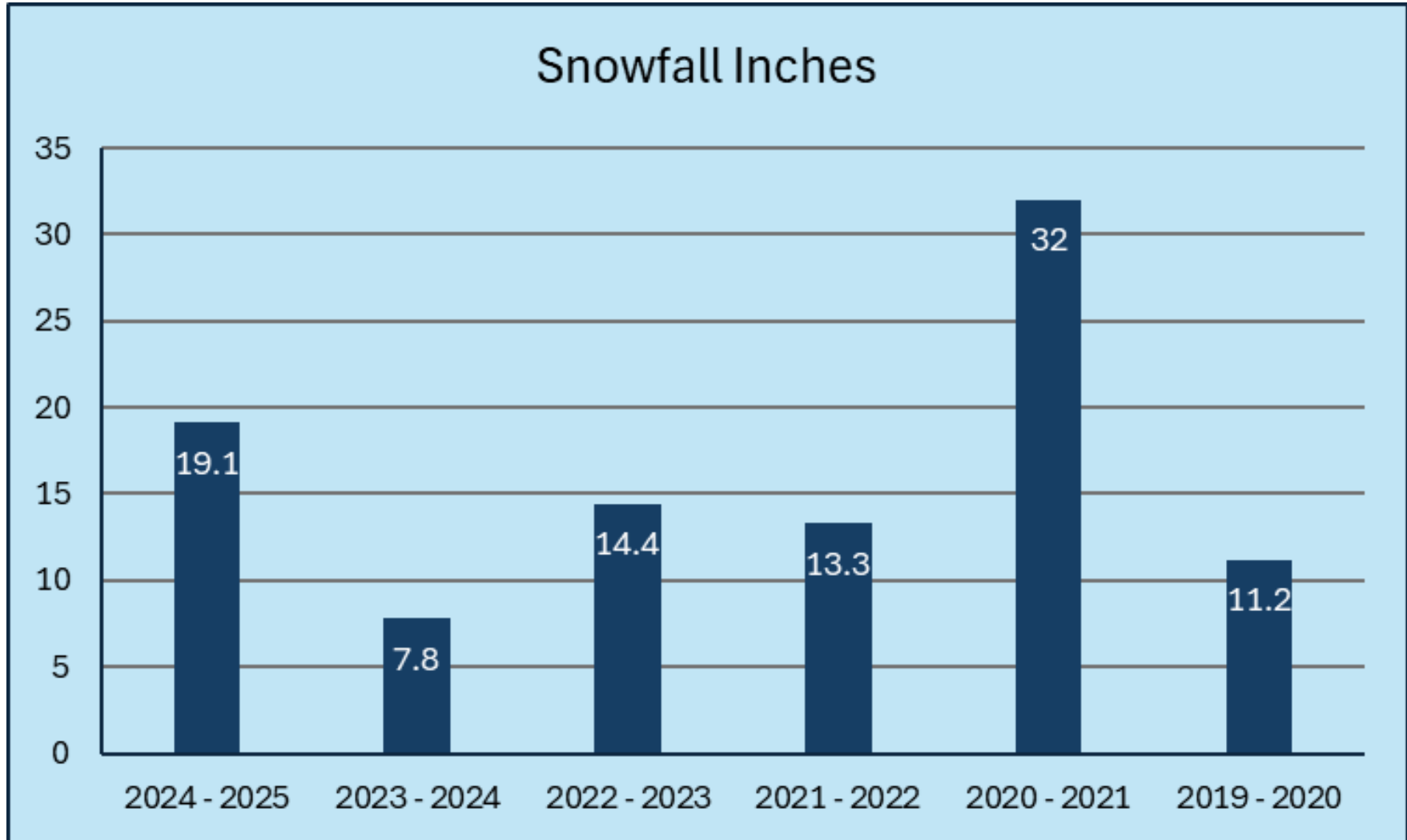
Cincinnati area deals with one of most memorable snowfalls in recent history

## > CINCY LEADING THE PACK! > OHIO SNOW TOTALS THIS SEASON

CINCINNATI	16.0"
CLEVELAND	15.1"
AKRON	13.6"
COLUMBUS	7.3"
TOLEDO	2.0"

Heaviest snowfall in a decade is possible as wintry mix blasts across the country

# Annual Snowfall Totals



# Preparation

## Strategic Planning

- Routes
  - *Update route books ensuring each district has 25 binders*
  - *Update Supervisor contact info*
- Materials
  - *Ensuring domes are fully stocked with salt*
  - *Ensuring liquid materials are at full capacity*
- Review of polices and procedures
  - *Completed during classroom training*
- Street Adjustments
  - *Adding any new dedicated streets submitted by DOTE*
- Staffing levels
  - *Ensuring all districts and A & B shift are assigned drivers by Nov 1<sup>st</sup>*
- Collaboration
  - Cincinnati Public Schools
  - METRO
  - Uptown Consortium
  - DCI
  - City Departments



# Preparation

## Equipment

- Nov 1st: equipment ready for service
  - *Mechanics continue to repair equipment after snowfall*
- Inventory
  - *Ensuring each district is balanced with necessary snow vehicles and equipment*
- List of repairs
  - *Ensuring there is a reporting mechanism in place to report downed equipment during an active event*
- Plows inspected for damage, cleaned, lubricated and stored

## Training

- Snow Removal Procedures
- 5 years or less Training
- Classroom Training
- Cold Stress
- Radio Etiquette
- Power Lines



# Winter Operations Methods

- **Goal: Remove snow and ice from the roadways in an efficient and rapid manner.**
- **Anti-icing**
  - Used to prevent the formation or bonding of snow and ice by timely applications of a chemical.
  - Begins with the use of dry, liquid or pre-wetted material such as salt, salt brine and IceBite (beet juice).
  - Crews proactively anti-ice bridges, hills and overpasses
- **De-icing**
  - Used during/after precipitation to assist with the dissolving accumulation.
  - Begins with plowing, using dry or liquid materials, application of heat (friction) or a combination of these practices.

# Winter Operations Methods

- **Snow Hauling**

- When large amounts of accumulation occur, **where plowing is not possible**, snow is hauled. This mainly occurs only in the CBD area.
- Large equipment such as backhoes and loaders are used to load snow and haul to dump area.

- **Plowing**

- The most effective practice at removing compacted snow or loose ice before applying chemicals. If pavement and snow are cold and dry, and the tires are not adhering to the pavement, application of chemicals will have an insignificant affect.



# Street Priorities

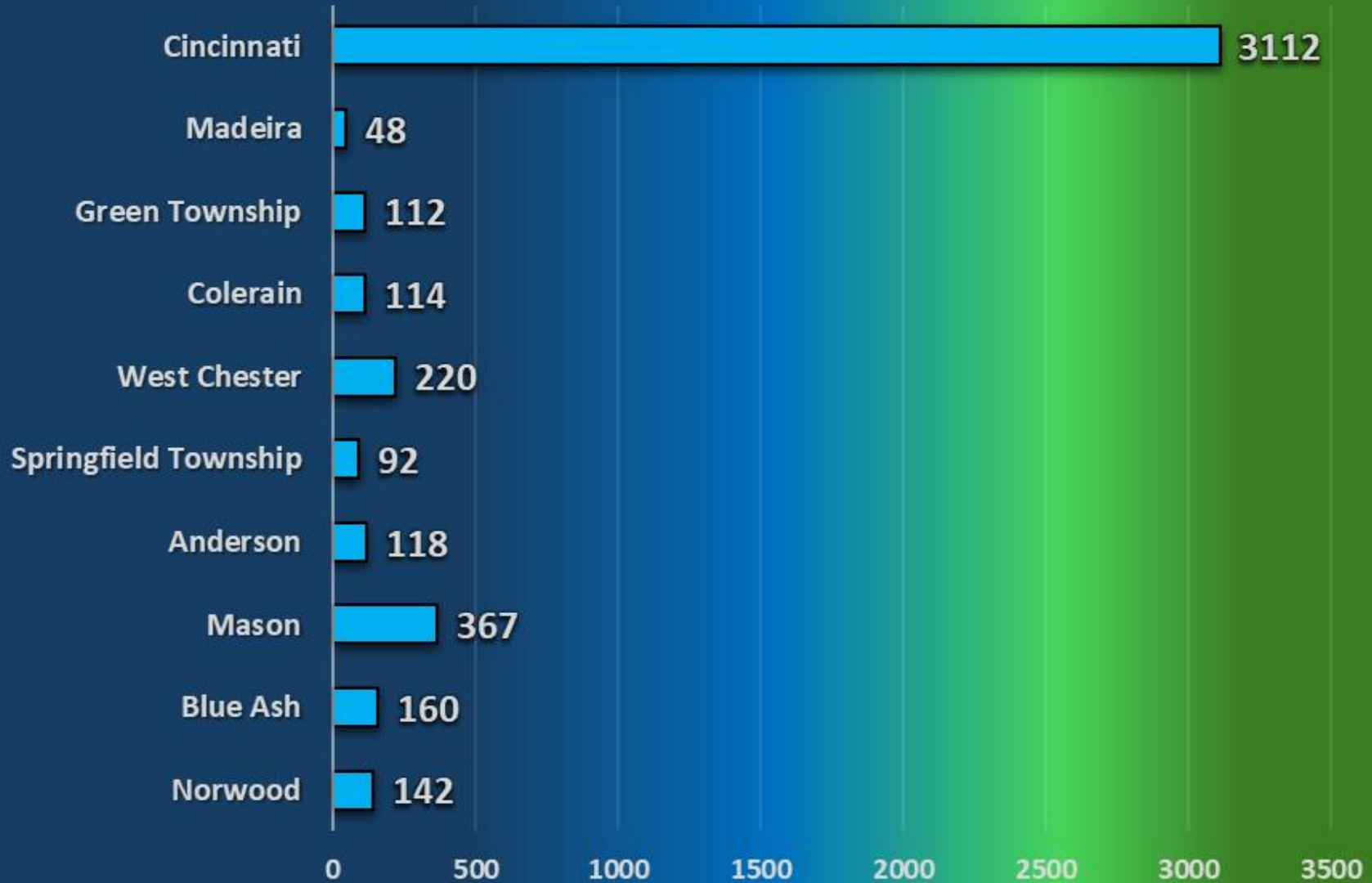
Street prioritizations were developed using the Cincinnati Area Geographic Information System (CAGIS), a division of Enterprise Technology Solutions (ETS) mapping systems. All major arteries, feeders, and alleys are included in the city's snow and ice control plan.

Streets are treated and plowed based on three categories of route priorities: Primary, Residential and Pickup.

- Primary routes include major thoroughfares and hospital routes
- Residential routes are pathways off major thoroughfares and still accessible with larger trucks
- Pickup routes are streets which can only be accessed with smaller trucks

All routes are treated by priority beginning with primary.

# Lane Miles Comparison



# Equipment

	South	North	East	West
Pickup	4	4	4	4
Contractor Dump	3	1	3	3
Single Axle	11	10	10	10
Tandem	4	3	3	3
Brine	4	4	4	3
Loader	2	1	2	1
<b>Total</b>	<b>27</b>	<b>22</b>	<b>24</b>	<b>23</b>

Additional Equipment supplied by MSD include 4 single axle trucks.



**Pickup**



**Contractor Dump**



**Brine**



**Tandem**



**Single Axle**

# Staffing

- Winter maintenance personnel report to one of four locations strategically throughout the City.
- Personnel for each reporting location are assigned to one of two shifts so that during an event we can operate 24/7 until the need has concluded.
- Each location has a Supervisor and ideally 15 drivers plus a loader operator for each shift.
- Support personnel such as dispatchers and mechanics report to auxiliary locations.
- Winter Night Force (WNF)
  - 25 employees with two Supervisors and one Dispatcher work the night shift from late fall to early spring.
- A & B Shifts
  - Crews split into 2 shifts during major events.
  - A = 7AM – 7PM
  - B = 7PM – 7AM

# Winter Operations Staff

- DPS does not have a designated Winter Operations staff.
- Winter Operations staff is pulled from various divisions of DPS and volunteers from various City Departments.
- Staff is taken off their primary assignment during this time.
- Average Years of Experience = 4 years



# Assorted Roles of Winter Operations

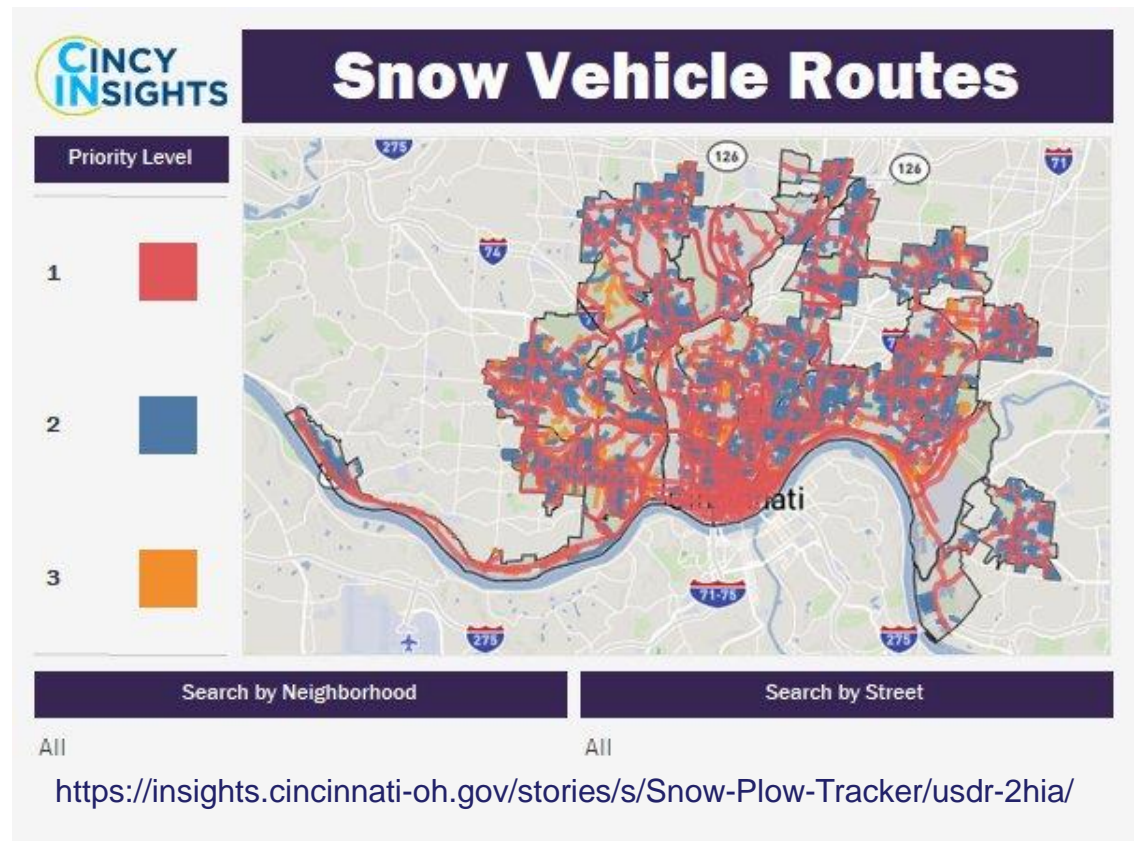
Traffic & Road Operations Division (TROD)	Neighborhood Operation Division (NOD)
Laborer	Laborer
<ul style="list-style-type: none"><li>• Road Repair – Potholes, Landslides, Stormwater</li></ul>	<ul style="list-style-type: none"><li>• Greenspace Maintenance - Cutting</li></ul>
<ul style="list-style-type: none"><li>• Traffic Control – Painting, Street Closures</li></ul>	<ul style="list-style-type: none"><li>• Illegal Encampments - Clean up</li></ul>
<ul style="list-style-type: none"><li>• Street Signs - Replace and Repair</li></ul>	<ul style="list-style-type: none"><li>• Flooding- Clean up</li></ul>
<ul style="list-style-type: none"><li>• Winter Operations - Plowing &amp; Treating</li></ul>	<ul style="list-style-type: none"><li>• Winter Operations - Plowing &amp; Treating</li></ul>



# Snow Plow Tracker

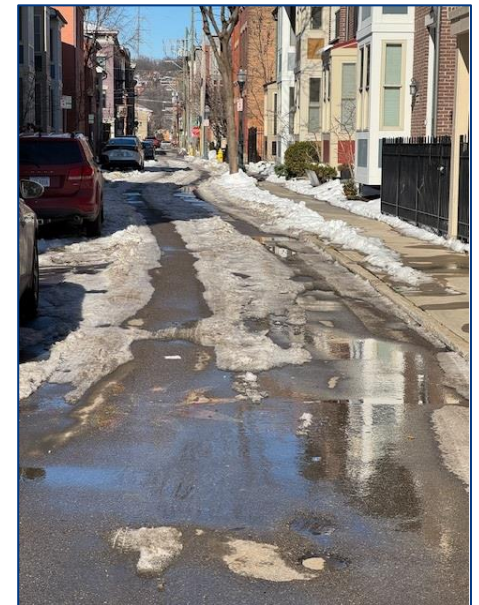
Residents are able to track real-time winter operations data via the CincyInsights Snow Plow Tracker. During winter weather events the interactive website shows:

- Where snow vehicles have already been
- When a vehicle was on a particular street
- The distance covered by snow vehicles since the start of the winter weather event



# Opportunities for Additional Support

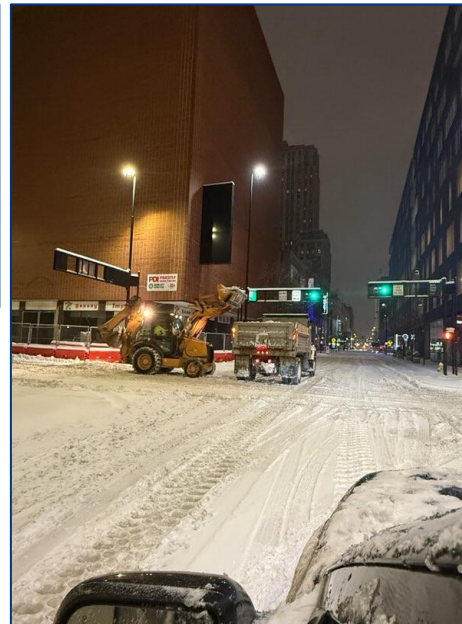
- On Street Parking Messaging and Removal
- Available Assets





# Opportunities for Additional Support

- Technology
- Innovation for Geographical Challenges



# After Action Review & Next Steps

- City Manager Directed SIET Initiative
- Comprehensive Review and Continuous Improvement effort across all the 3 Phases of Winter Operations: Pre, During, and Post event.
- Scope of work includes:
  - Staffing – Size, scalability, skill sets
  - Resources – DPS/Enterprise Fleet Inventory
  - Command & Control/Technology – See ourselves
  - Communications – Timely, coordinated, consistent

# Immediate Opportunities

## Staffing

- Activate CDL & non CDL staffing from outside DPS earlier in the event to begin clearing residential streets.

## Resources

- Utilization of already equipped vehicles from outside DPS at the onset of operations

## Command & Control / Technology

- Implement the piloted OPDA solution leveraging GPS, and SRs to identify challenged areas.

## Communications

- Streamlined communications internally and to the public/media.

# Additional Opportunities

## Staffing

- Identify and implement a strategic, scalable, and adaptive city-wide staffing plan for extreme weather events. Plan will outline mandatory vs voluntary roles & responsibilities and differentiate city response based on extreme event circumstances.

## Resources

- Fleet inventory, maintenance planning.

## Command & Control / Technology

- Route and street classification reviews, fully automated tracking systems, in vehicle technology, cross-departmental coordination.

## Communications

- Coordinated communication plan and public response process for DPS, 311, CPD/Sherriff's Office, Administration & Council. Will cover pre-event, active, and post-event service delivery.

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**Updated Enterprise playbook with a comprehensive plan of action for extreme weather emergencies, clear roles and responsibilities, defined expectations.**

# Questions?

city of  
**CINCINNATI**  
PUBLIC SERVICES

