

Motion 202500054

To review the City's response to Winter Storm Blair and Prepare for Future Major Weather Events

- Asked Administration to do an after-action look at what went well and what did not in preparation and response to the snowfall.
 - Particularly policies regarding prioritization of residential streets and those surrounding schools and hospitals.
 - Capital needs associated with implementing improvements.
- Evaluate the snow removal plan implemented during the week of January 6, 2025.
- Discuss positives from the response, lessons learned and identify areas for improvement, and creative and innovative solutions.
- Identify funding needs to implement the areas of improvement.
- Solutions may include reviewing current staffing levels and policies within DPS that make retaining experienced drivers difficult.
- Exploring collaborations between other departments, sharing services with Hamilton County.
- Evaluate and improve how to track progress on clearing streets of ice and snow and improve the snowplow tracker.
- Work with Office of Performance and Data Analytics and 311 Cincy.



City Manager Directed SIET Initiative

- Scope of work includes:
 - Staffing Size, scalability, skill sets
 - Resources DPS/Enterprise Fleet Inventory
 - Command & Control/Technology See ourselves
 - Communications Timely, coordinated, consistent
- DPS Winter Operations Situational Assessment Report after January 5-6, 2025, snow event
 - Communication
 - Cost
 - Fleet
 - Leadership
 - Service Level
 - Metrics
 - Oversight
 - Pothole Repair



After-Storm Situational Assessment

Since the last snowstorm, comparable to January 5-6, 2025, was nearly 17 years prior to this two-day accumulation, many changes have occurred in DPS:

- DPS has had 6 different Department Directors.
- Many programs have been added, reduced, or eliminated in DPS.
- Staffing in DPS has been reduced by 125 positions over 20 years.
- Training budgets have been cut and not restored to original levels.
- The city capital acceleration plan (CAP) was established in 2016 and provided 78 new vehicles; however, the replacement effort has not continued for DPS at the same pace after the program was halted in 2021.
- The Early Retirement Incentive Program (ERIP) occurred in 2020 with 28 experienced DPS employees retiring, resulting in a significant loss of operational knowledge.
- Process review and improvement efforts have been limited given the many changes to tasks and programs over the years.
- Technology solutions have not been regularly evaluated nor implemented to modernize daily practices and service delivery.



Situational Assessment- Major Focus Areas

- Route Prioritization
- Communications
- Staffing/Resources
- Employee PPE
- Technology
- Fleet
- Training

- Service Requests
- Metrics
- Snow Parking Emergency
- Oversight during events
- Pothole Repair



A few examples of challenges

- Lack of modern technology
 - Use of binders and paper maps on routes
 - Call in to dispatchers and supervisors after completing routes
 - Limited mobile devices for supervisors
 - If areas reported not cleared, supervisors would have to go verify and send drivers back out
 - Limited time to close service requests in a timely manner (no technology in vehicles)



A few examples of challenges

Fleet

96 available vehicles, 81 for "driving routes"

Year in Service	Quantity	Year in Service	Quantity
2025	4	2011	1
2024	0	2010	3
2023	5	2009	0
2022	2	2008	0
2021	2	2007	10
2020	6	2006	4
2019	12	2005	3
2018	6	2004	1
2017	19	2003	0
2016	4	2002	0
2015	7	2001	0
2014	0	2000	0
2013	2	1999	1
2012	4	Total	96



A few examples of challenges

Service Requests

Date	Slippery Streets, request created	Slippery street requests, closed by planned date	lcy, snowy streets, request created	Icy, snowy streets, request to treat closed by planned date	Pothole repair request created	Pothole repair requests closed by planned date
Saturday, January 4, 2025	2		2		8	75.00%
Sunday, January 5, 2025	99	100.00%	62	100.00%	4	50.00%
Monday, January 6, 2025	743	62.85%	8	50.00%	3	33.33%
Tuesday, January 7, 2025	2139	0.42%	41		7	57.14%
Wednesday, January 8, 2025	1130		48	4.17%	4	75.00%
Thursday, January 9, 2025	449	0.22%	267	1.87%	7	85.71%
Friday, January 10, 2025	225	0.89%	209	0.48%	9	77.78%
Saturday, January 11, 2025	150	0.67%	94	2.13%	5	100.00%
Sunday, January 12, 2025	45	22.22%	44	13.64%	29	89.66%
Monday, January 13, 2025	50	42.00%	74	40.54%	37	91.89%
Tuesday, January 14, 2025	47	74.47%	44	75.00%	32	90.63%
Wednesday, January 15, 2025	32	75.00%	48	79.17%	38	89.47%
Thursday, January 16, 2025	35	85.71%	45	82.22%	40	90.00%
Friday, January 17, 2025	8	62.50%	16	56.25%	34	94.12%
Saturday, January 18, 2025	1	100.00%	3	100.00%	40	97.50%



Lessons Learned-Recommendations

- More experienced staff (newer employees with limited experience)
- Communications –pre-defined communications plan-internal and external
- Staffing/Resources- fill vacant positions with focus on all filled before October each year
- Employee PPE- Updated Union MOUs, winter gear/clothing issued to employees before winter
- Technology-Use of technology/CAGIS & OPDA solutions
- Fleet-preventative maintenance, more vehicles
- Training-need hands-on experience
- Assistance from other departments



Priorities as we move forward

- Leadership Retirement New DPS Director
- Staffing
- Fleet
- Command and Control/Technology
- Communications
- Training
- Innovation
- Improved Pothole Operations



New Leadership



Mark A. Riley

- New leader with over 20 years of experience in winter operations and pothole management in Northwest and Central Ohio
- Strategic, innovative, and collaborative leader who currently serves on the National Emergency Management Sub-Committee of the American Public Works Association (APWA)
- Director Riley believes that having a welltrained staff, executing an effective strategy, and maintaining transparent communication before, during, and after winter events are essential for the Department of Public Services to deliver efficient and effective winter operations



Snowfall totals: Cincinnati sets record for daily snowfall amount BIGGEST TWO-DAY SNOWFALLS LOCA







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



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

A record snowfall of 4.2 inches was set at Cincinnation 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

NWSTLN



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





Roadways are HATAR TOUS. Only those

CINCY LEADING THE PACK!

» OHIO SNOW TOTALS THIS SEASON

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



By Avery Bennett

Published on January 08, 2025



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

Nation Jan 5, 2025 5:28 PM EST



Immediate Opportunities

Staffing

- Create and implement a strategic, scalable, and adaptive city-wide staffing plan for extreme weather events. Plan outlines mandatory vs voluntary roles & responsibilities and differentiate city response based on extreme event circumstances.
- Activate CDL & non CDL staffing from outside DPS
- Union MOU for all staff participating in Winter Operations during a snow event
- Cross-departmental coordination

Fleet

- Utilization of already equipped vehicles from outside DPS at the onset of operations
- Fleet inventory, maintenance planning
- Parts Inventory
- Mechanic Training and scheduling



Immediate Opportunities

Command & Control / Technology

- Route and street classification reviews
- Implement the piloted OPDA solution leveraging GPS, and SRs to identify challenged areas
- Tablets + Drones
- Automated tracking systems
- In vehicle technology

Communications

- Emergency Operations Center Activation
- 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.
- Streamlined communications internally and to the public
- DPS PIO communication with neighborhood community council liaisons before and during snow event



Strategic Preparation

Routes

- Tablets
 - Eliminate route books
- Optimization of routes
 - Ensuring every street in the Cincinnati Corp. Limits has been added to a route
 - Verifying schools and hospitals are all on routes
 - Every Primary route will have an assigned driver

Materials

Salt domes are fully stocked

Innovation

"New' Beet Heet Liquid

Review of polices and procedures

Completed during classroom training

Staffing levels

- Ensuring adequate staffing for A & B shifts
- Additional staffing from other city departments

Collaboration

- Cincinnati Public Schools
- METRO
- Uptown Consortium
- DCI
- City Departments



Street Priorities

Street prioritizations were developed using the Cincinnati Area Geographic Information System (CAGIS), a division of Enterprise Technology Solutions (ETS) mapping systems. Streets are treated and plowed based on three categories of route priorities: Primary, Collector, Residential and Pickup.

- Primary routes include major thoroughfares and hospital routes.
- Collector routes collector streets are roads that gather traffic from primary streets and direct it to residential and arterial roads.
- Residential and pickup routes are considered neighborhood streets which can be treated by contractor dumps and pickup trucks.
 - Due to the width of the street, access is limited to smaller trucks only (pickup routes).

All routes are treated by priority beginning with primary.



Training Obstacle Course



Obstacle Course Driving Training









Innovation

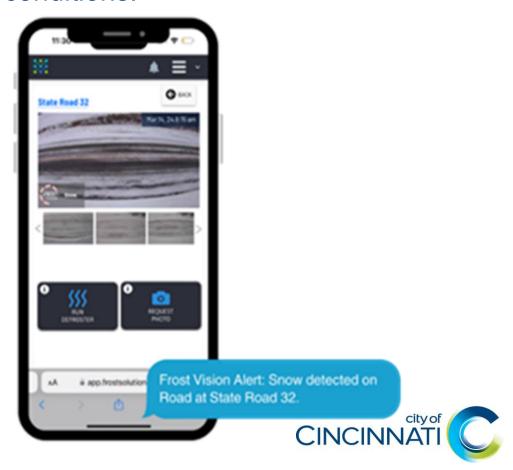
Drones – GCWW

10 Weather Stations

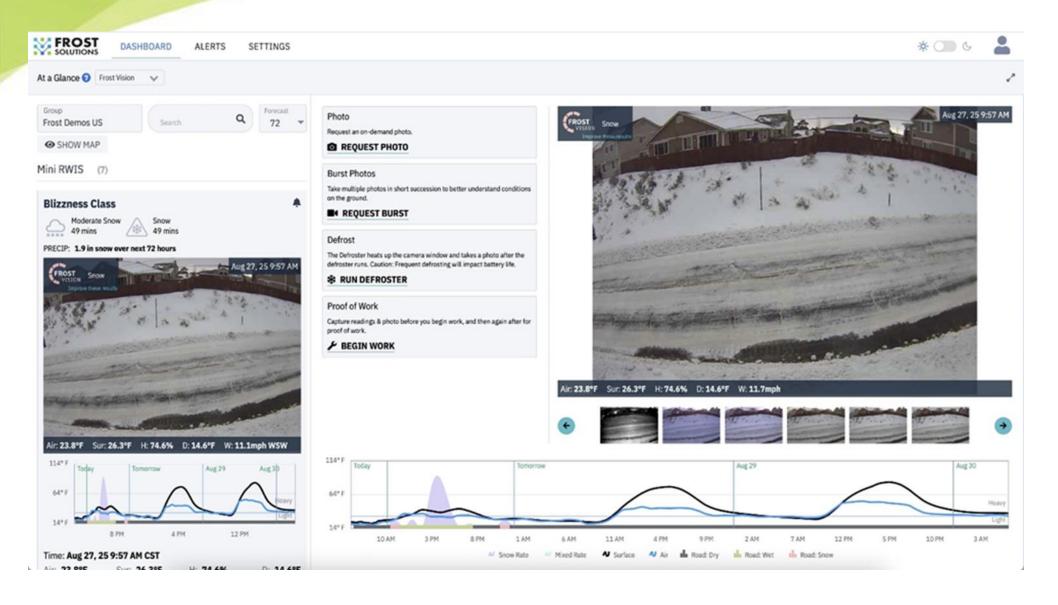
- Reading Rd. at Seymour Ave.
- •Reading Rd. & MLK Blvd.
- Montgomery Rd. & Ridge Ave.
- •River Rd. & Kibby Ln.
- Sycamore St. & E. Liberty St.
- Queen City Ave. & Boudinot Ave.
- •Victory Pkwy & E. McMillan St.
- Linwood Ave. & Eastern Ave.
- Winton Rd. & N. Bend Rd.
- Colerain Ave. & Kirby Ave.

Weather Station Mobile App

The Frost Mini-Weather Station takes readings every minute to generate the best weather forecast for your specific location's precipitation and road conditions.

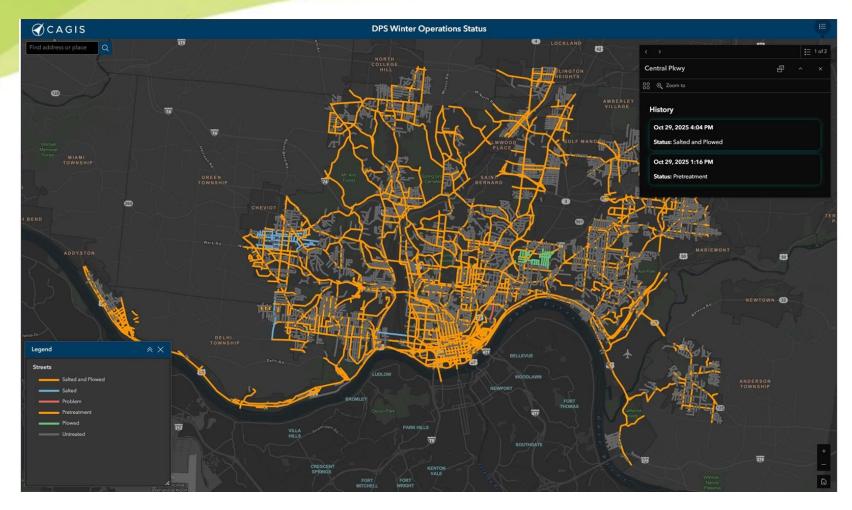


Innovation





Snowplow Tracker



The snowplow tracker is activated during full winter response operations, when DPS crews are working 12-hour day and night shifts to cover the entire city. During smaller or more localized events, the tracker is not turned on.

The interactive map now provides detailed, street-level service updates. Residents can view:

- When a vehicle serviced a street
- What type of treatment was applied



Winter Operations Methods

Four Methods

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 Beet Heet. 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.

Snow Hauling

- Heavy snowfall accumulates and traditional plowing methods become ineffective.
- Backhoes and loaders used to gather and transport snow to designated dumping sites.

Plowing

• Remove compacted snow or loose ice while applying any chemicals. When pavement and snow are cold and dry, and tires struggle to grip the road, the effectiveness of chemical treatments diminishes significantly. Clear the surface first, to ensure all efforts to enhance safety and mobility are truly impactful.

Pothole Repair

Innovation

- Proactively perform street cuts on all streets with over 200 Pothole CSR (2025)
- New Equipment

New Cold patch material



- Aquaphalt -first pre-mixed permanent cold patch repair material on the market that's high-enduring, highperforming.
- Aquaphalt -first permanent, eco-friendly patch material for asphalt and concrete.
- Aquaphalt begins to harden immediately, and is fully cured in 24 hours.





Thanks for your time and attention.

Questions?

