

Facilities Work Order Analysis

Reactive Maintenance Trends & Improvement Opportunities

Lean Six Sigma Green Belt Project

KP-SW Facilities Department

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Analysis Period: September 2023 – June 2026

Project Scope & Methodology

Objective

Analyze Facilities work orders to identify the primary drivers of reactive workload and opportunities for process improvement.

Site: KP-SW

Data Source: UpKeep CMMS

Analysis Period: September 2023 – June 2026

Total Work Orders Analyzed: 1,064

Work Orders Included:

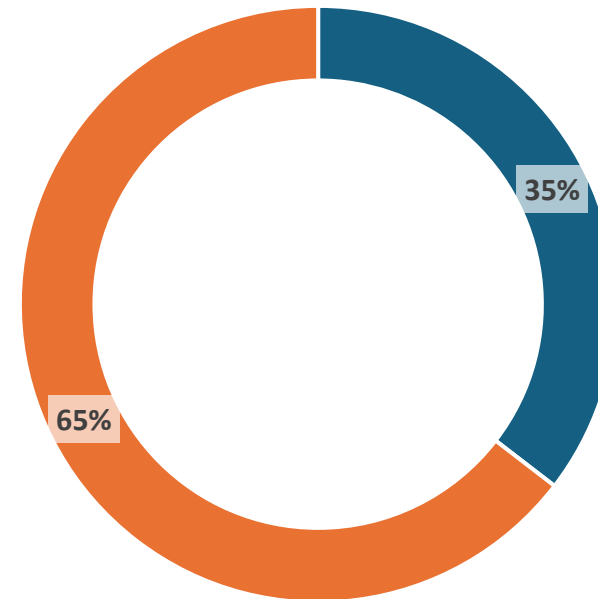
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Methodology

- Categorized work orders as Preventive or Reactive Maintenance
- Performed Pareto analysis on reactive maintenance categories
- Conducted detailed review of work orders to identify common request types

Preventive vs. Reactive Maintenance

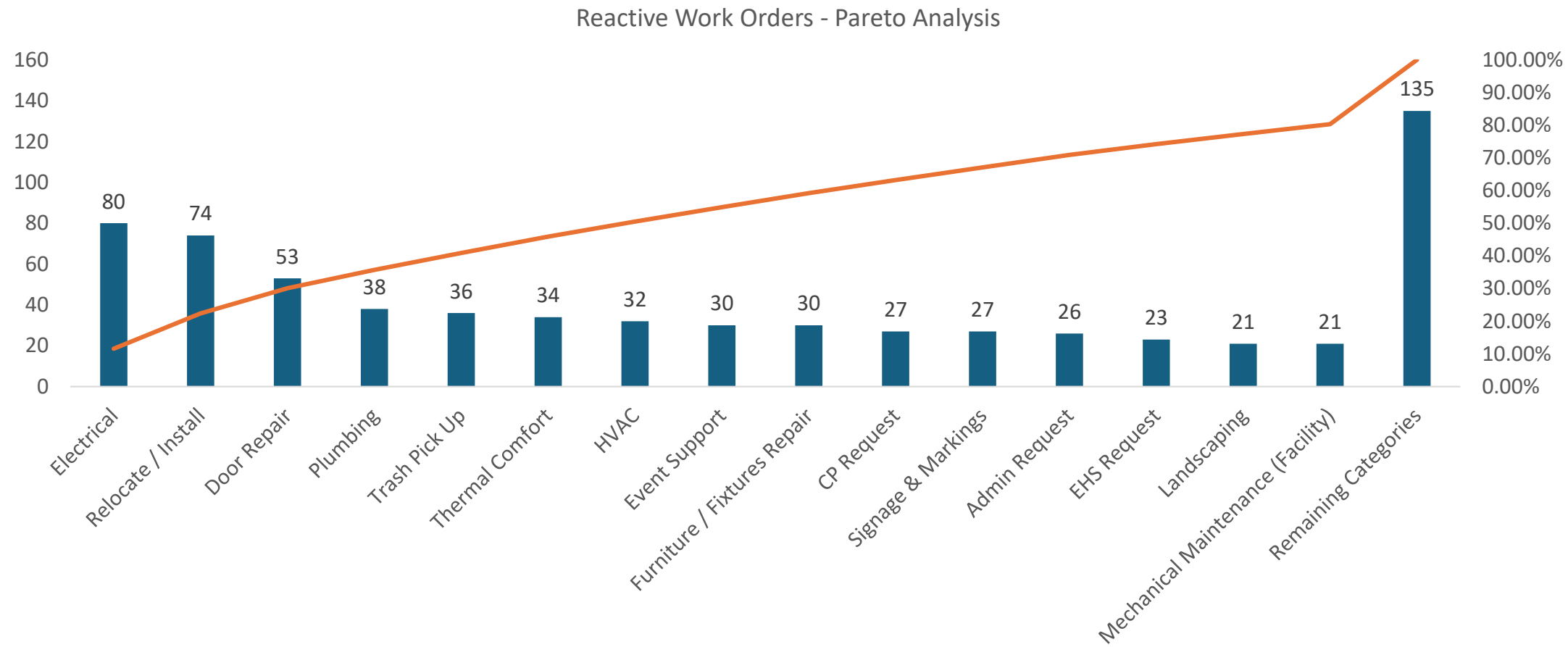
1,064
Total Work Orders
377
Preventative
687
Reactive
65%
Reactive Rate



Key Finding

Reactive work orders accounted for approximately **65%** of all work orders analyzed, indicating that reactive maintenance and facilities support service make up the majority of the Facilities team's workload.

Top Reactive Work Order Categories



Key Finding: The top fifteen reactive work order categories account for approximately **80%** of all reactive work orders analyzed. Electrical, Relocate/Install, and Door Repair represent the largest contributors and were selected for detailed analysis.

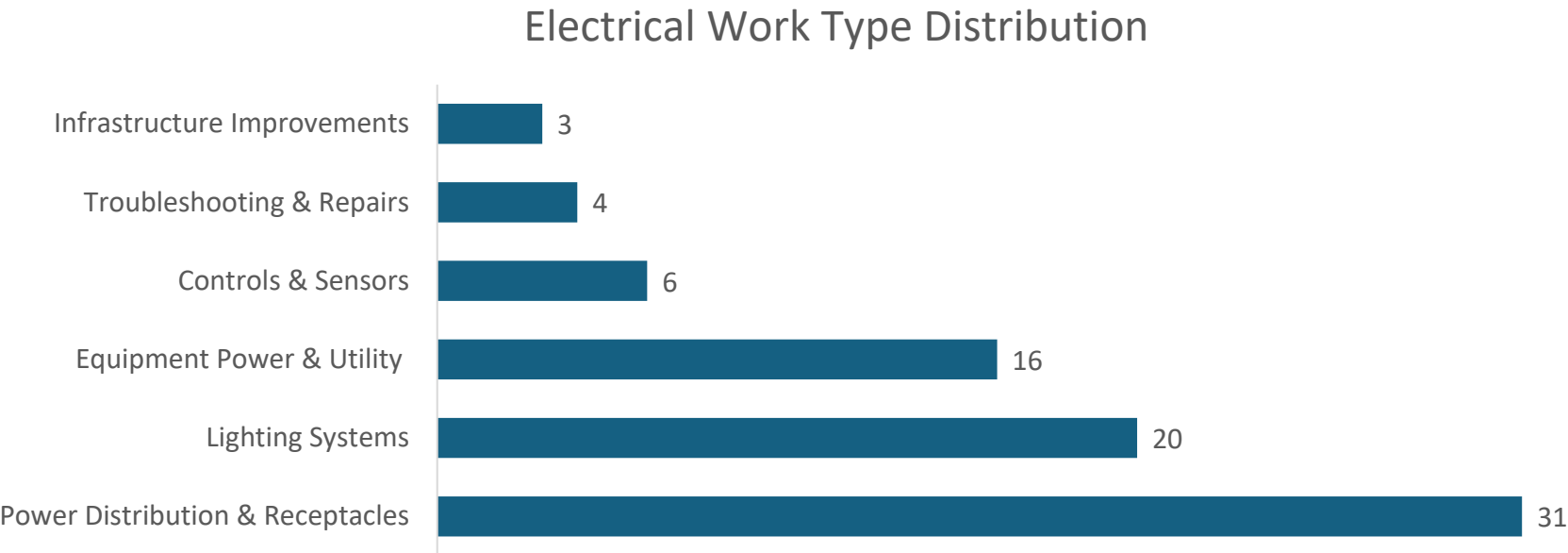
Selection of Categories for Detailed Analysis

<u>Category</u>	<u>Work Orders</u>	<u>Detailed Analysis</u>	<u>Rationale</u>
Electrical	80	✓	Highest-volume category with multiple identifiable work drivers.
Relocate / Install	74	✗	Broad support category containing diverse facility requests without a single dominant trend.
Door Repair	53	✓	Focused maintenance category suitable for identifying recurring maintenance trends.
Remaining Categories	<53	✗	Lower work order volume; not prioritized for this initial review.

Selection Criteria

Categories were selected for detailed analysis based on **work order volume, consistency of work type**, and the potential to identify actionable maintenance trends. Broad categories containing unrelated activities were documented but not subdivided during this initial review.

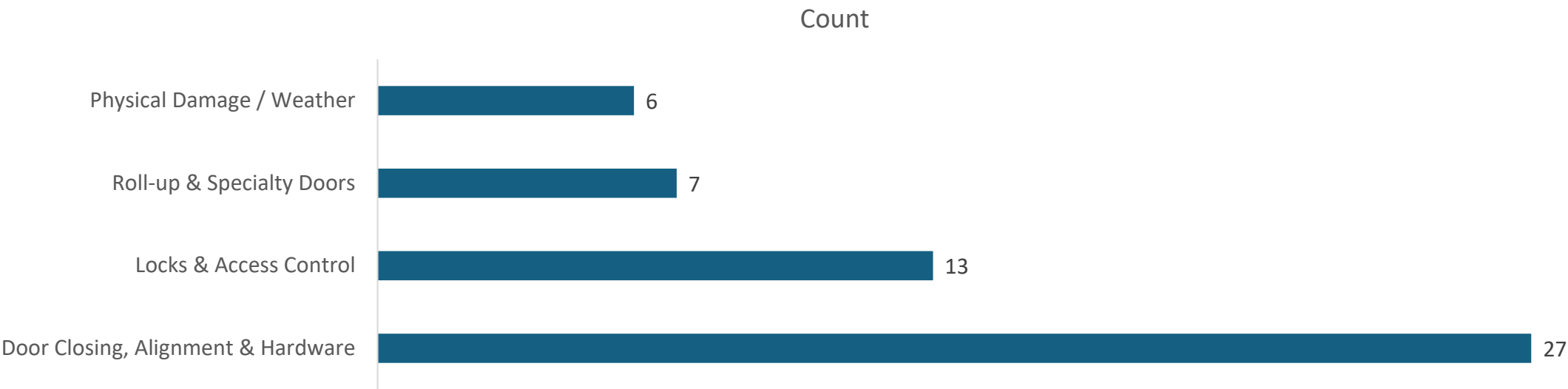
Electrical Work Order Analysis



Individual electrical work orders were reviewed and grouped into functional work types to better understand the primary drivers of electrical workload.

Key Finding: Power Distribution & Receptacles accounted for approximately **39%** of all electrical work orders, followed by Lighting Systems (**25%**) and Equipment & Utility Connections (**20%**). The analysis indicates that electrical work was driven by a combination of facility expansion, infrastructure improvements, operational support, and routine maintenance activities.

Door Repair Work Order Analysis



Key Finding: Door Closing, Alignment & Hardware accounted for approximately **51%** of all Door Repair work orders, followed by **Locks & Access Control (25%)**. The analysis indicates that most door-related maintenance involved restoring door operation and reliable building access through routine hardware adjustments rather than major door replacements.

Recommendations Based on Analysis

Electrical Planning

Improve Project Planning for Electrical Requirements

Why: Electrical work primarily supported infrastructure modifications, power distribution, and equipment installations rather than corrective equipment failures.

Action: Coordinate electrical requirements earlier during project planning to reduce post-project modifications and follow-up work.

Door Hardware Maintenance

Expand Preventive Door Hardware Inspections

Why: Over half of door repair work involved closers, hinges, alignment, and hardware adjustments.

Action: Evaluate incorporating routine door hardware inspections into the preventive maintenance program to reduce recurring corrective work.

Continuous Improvement

Perform Annual Work Order Trend Reviews

Why: Trend analysis identified workload drivers that were not apparent from work order counts alone.

Action: Continue annual or periodic work order trend reviews to support maintenance planning and identify emerging maintenance trends.

Key Takeaways

- ✓ Reviewed **1,064** Facilities work orders over the analysis period.
- ✓ Reactive work represented **65%** of all work orders.
- ✓ Electrical and Door Repair were selected for detailed analysis because they offered the greatest opportunity to identify actionable workload trends and maintenance improvements.
- ✓ Recommendations focus on improving project planning, preventive maintenance, and ongoing trend analysis.