

# City of Grapevine Fleet Services Maximizes Parts Room Space with Kardex VLMs

Southwest Solutions Group implemented an automated storage and retrieval system for the City of Grapevine Fleet Services parts room in Grapevine, Texas. The storage optimization project used Kardex Shuttle XP Vertical Lift Modules and Power Pick Global software to increase storage density, speed parts retrieval, improve inventory visibility, and recover floor space without expanding the facility.

## INDUSTRY

### Government

Fleet Services supports municipal operations that depend on reliable parts storage and retrieval.

## LOCATION

### Grapevine, Texas

The project was completed for City of Grapevine Fleet Services.

## FACILITY TYPE

### Fleet Services Parts Room

The storage area housed parts inventory used by fleet technicians.

## SOLUTION

### Automated Storage and Retrieval System

The project used Kardex Shuttle XP Vertical Lift Modules with inventory control software.

## PRODUCTS USED

### Kardex Shuttle XP Vertical Lift Modules and Power Pick Global Software

The system combined vertical automated storage with software-supported inventory tracking.

## OPERATIONAL GOAL

### Improve parts storage, retrieval speed, visibility, and security

The City needed to manage growing inventory demands while avoiding facility expansion.

## THE PROBLEM

# Growing Fleet Inventory Was Straining the Parts Room

City of Grapevine Fleet Services had growing inventory demands that exceeded the available storage space in the parts room. Overcrowded open shelving consumed floor space, slowed parts retrieval, and left high-value fleet components exposed to unauthorized access and theft.



BEFORE

01

### Overcrowded Open Shelving

The parts room relied on open shelving that had become crowded as inventory demands increased. This layout consumed valuable floor space and limited how efficiently fleet parts could be stored.

02

### Slower Parts Retrieval

Technicians had to search through conventional shelving to locate the parts they needed. That process reduced operational efficiency and made daily parts access slower than the department required.

03

### Limited Inventory Control

High-value fleet components were stored in an open environment with limited access control. The department needed a more secure and visible way to manage parts and reduce exposure to unauthorized access and theft.

## THE SOLUTION

# Kardex Vertical Lift Modules for Secure Fleet Parts Storage

Southwest Solutions Group implemented two Kardex Shuttle XP Vertical Lift Modules with Power Pick Global software to consolidate fleet parts into automated enclosed storage. The system was selected to use unused vertical space, improve retrieval speed, increase inventory visibility, and avoid facility expansion. The City also used the Equalis cooperative purchasing contract to streamline procurement.



SOLUTION

## WHAT WE INSTALLED

### Two Kardex Shuttle XP Vertical Lift Modules

SSG installed two Kardex Shuttle XP Vertical Lift Modules to automate storage and retrieval for fleet parts. The solution included Power Pick Global software for inventory tracking, automated tray delivery, enclosed secure storage, and CubeStar technology.

## WHY IT FIT

### Vertical Storage Reduced Dependence on Floor-Based Shelving

The VLMS used vertical space to consolidate parts that had been stored on open shelving. Automated tray delivery brought items to an ergonomic access point, supporting faster retrieval while helping the City manage growing inventory within the existing facility.

## OPERATIONAL IMPACT

### More Controlled Access to Parts and Inventory Data

The completed system improved parts access, organization, accountability, and operational readiness. Project results included 3-4x faster parts retrieval, over 90% of shelving eliminated except bulk items, improved inventory accuracy, enhanced parts security, and recovered floor space.

# A Structured VLM Installation for a Municipal Fleet Parts Room

The implementation focused on replacing overcrowded shelving with automated vertical storage and software-supported inventory control. Equipment delivery occurred 16-17 weeks after purchase order, followed by a two-week installation and operator training period completed by certified Kardex technicians.

## 01 DISCOVERY & SITE SURVEY

### Reviewed Parts Room Storage and Access Requirements

SSG evaluated the Fleet Services parts room goals, including storage density, retrieval speed, inventory visibility, and secure access. The project focused on using the existing facility footprint more efficiently instead of expanding the space.

## 02 LAYOUT, POWER & DATA PLAN

### Planned the VLM Placement Within the Existing Space

The team planned placement for the Kardex Shuttle XP Vertical Lift Modules with attention to access, service space, power, data, and software connectivity. The layout supported automated tray delivery and inventory control through Power Pick Global.

## 03 SUBMITTALS & APPROVALS

### Supported Review, Approval, and Cooperative Procurement

SSG provided project documentation needed for review and approval. The Equalis cooperative purchasing contract helped streamline procurement for the City.

## 04 FABRICATION & DELIVERY

### Coordinated Kardex Equipment Delivery

The Kardex equipment was delivered 16-17 weeks after purchase order. Delivery was coordinated as part of the project sequence before installation began.

## 05 INSTALLATION & TRAINING

### Installed the VLMs and Trained Operators

Certified Kardex technicians completed installation and operator training during a two-week installation and training period. Training prepared staff to use the automated storage system and Power Pick Global software for daily parts room operations.

## 06 MAINTENANCE & SUPPORT

### Supported Long-Term Storage System Use

The completed system gives the department a structured platform for ongoing parts room organization, storage density, and workflow improvement. Continued support helps preserve system performance as inventory needs change.

## RESULTS

# A More Efficient and Secure Fleet Parts Storage Operation

The completed project moved the parts room from an overcrowded shelving environment to an automated vertical storage operation. Using Kardex VLMs and Power Pick Global software, City of Grapevine Fleet Services improved retrieval, organization, inventory visibility, security, and available floor space within the existing facility.

### PRIMARY OUTCOME

#### Over 90% of Shelving Eliminated Except Bulk Items

The Kardex VLMs reduced the department's reliance on open shelving and helped recover valuable floor space. This supported the City's goal of increasing storage capacity without expanding the facility.

### WORKFLOW

#### Parts Retrieval Became 3-4x Faster

Automated tray delivery helped technicians retrieve parts faster than the previous shelving-based process. The project also reduced walking and search time in the parts room.

### ORGANIZATION

#### Improved Inventory Accuracy, Visibility, and Accountability

Power Pick Global software supported inventory tracking and helped organize parts within the automated storage system. Enclosed secure storage also improved accountability and enhanced protection for high-value fleet components.

### LONG-TERM VALUE

#### Higher Storage Density Within the Existing Facility

By using unused vertical space, the City gained a more efficient parts storage approach without facility expansion. The system supports long-term value through increased storage density, more consistent retrieval, and enhanced operational readiness.



### CUSTOMER FEEDBACK

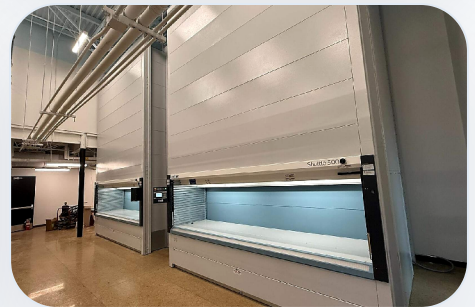
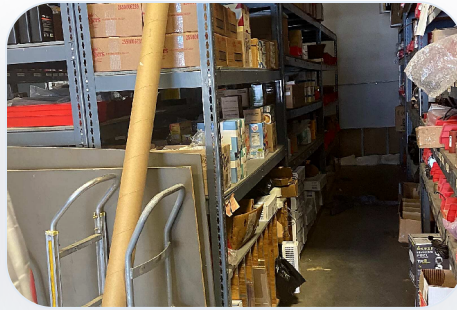
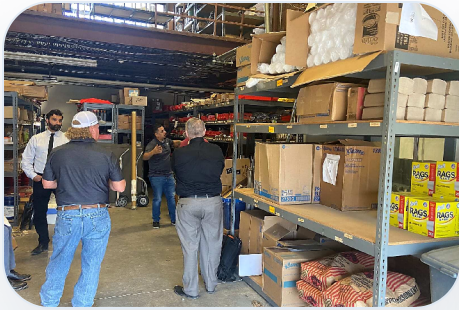
**The new storage system completely changed how our parts room operates. Our technicians can retrieve parts significantly faster, inventory is far more organized, and we recovered valuable floor space without expanding the facility.**

**Michael Turner**

Fleet Operations Manager

## Before and After: Fleet Parts Room Storage Transformation

Project images show the transition from overcrowded open shelving to automated vertical storage using Kardex Shuttle XP Vertical Lift Modules.



READY TO SOLVE A SIMILAR PROBLEM?

### Need to Improve Parts Storage Without Expanding Your Facility?

Southwest Solutions Group helps government fleet operations evaluate parts room storage challenges and design systems that fit the existing facility.

If your team is dealing with overcrowded shelving, slow retrieval, or limited inventory visibility, our specialists can help assess the space and recommend a practical storage approach.