Cold Storage: A Hot Spot for Industrial Development

Cold storage has become one of the hottest commodities in the industrial development space. With increases in online grocery delivery, demand for faster delivery timeframes, and younger generations driving urban living trends, developers are looking to more options for last-mile delivery and cold-storage facilities. Class B/C industrial buildings are well positioned to be repurposed for both last-mile and cold storage buildings due to their proximity to population density and traditionally smaller loading courts which aligns well with smaller local delivery truck fleets.

More Than Just Food
When considering users of cold-storage facilities, food and beverage can often dominate the discussion, however, there are many other critical uses for cold-storage and climate controlled facilities.

BY THE NUMBERS

1.25 MILLION SQ FT INDUSTRIAL DEMAND FOR EACH

$1.0 BILLION IN E-COMMERCE SALES

$60 BILLION PREDICTED E-GROCERY SALES BY 2023

DEMAND FOR UP TO 100 MILLION SQ FT OF COLD STORAGE SPACE IN THE U.S. OVER THE NEXT 5 YEARS

HOT MARKET FOR COLD STORAGE
Texas has the most potential for new development with explosive population growth coupled with a strong economy and a consumption zone that covers a large geographic area.

TOP 5 STATES WITH THE MOST COLD STORAGE FACILITIES (CUBIC FEET IN MILLIONS):

- California: 396.5
- Texas: 259.4
- Florida: 271.3
- Wisconsin: 228
- Colorado: 231.4

Perishable Food Items  Flowers + Plants  Artwork  Cosmetics  Pharmaceuticals  Technology + Electronics
Online shopping is not only changing the way we behave as consumers but the need for infrastructure to support the way we shop is changing the landscape of urban developments. Traditional retail footprints are shrinking and more last-mile facilities are being built within urban cores to accommodate the demand for faster delivery.

E-commerce has evolved beyond traditional retail goods and has begun to capture market share in the grocery and restaurant sectors. When you look at how e-commerce trends have impacted the amount of warehouse space needed per household, there is tremendous potential for increased demand for more cold storage space as consumers continue to change the way they buy groceries. E-grocery delivery has been on the rise over the last decade and is being led by companies like Amazon, Walmart, and Kroger. According to Statista, the U.S. online grocery market was estimated to generate sales worth of about $28.68 billion in 2019, with sales forecast to reach $59.5 billion by 2023.

**A New Model**

As we’ve seen brick and mortar retail shrink, grocery will follow suit. With an increase in e-grocery sales, the need for storefronts will be challenged by the need for last-mile delivery hubs.

You will soon see a shift in the design of grocery stores from large, supermarket or “big-box” models to look more like a hybrid between a neighborhood center (think your local drugstore) and a cold-storage warehouse.

Grocery stores follow rooftops meaning they are already positioned well to transition to last-mile delivery hubs. The building structures are also conducive to be adapted to warehouse space.

Inner city Class B/C buildings are well positioned and located to be repurposed as last mile cold storage facilities due to proximity to density/roof tops and traditionally smaller loading courts which aligns well with the smaller local delivery truck model.

As the need for last-mile and cold storage facilities continue to increase, this will open up new opportunities for grocers to re-evaluate their real estate strategies and look to optimize their warehouse volume as leasable square footage.
The Cold, Hard Facts

A shortage of cold storage facilities is likely on the horizon as consumers become more accustomed to online grocery shopping. Although demand is growing, this asset type brings with it many challenges in development including cost to build.

**HOW COLD IS COLD?**

There are four basic temperature ranges and some specific needs that are implied when a facility is labeled as “cold”.

- **23° to 41° F**
  **High-temperature warehouse**
  Typical refrigerated warehouse used to store fresh produce and flowers.

- **0° to 14° F**
  **Medium temperature warehouse**
  Appropriate for storage of meats and seafood.

- **-10° to -18° F**
  **Low temp. freezer warehouse**
  Preferred environment for ice cream

- **< -22° F**
  **Ultra-low temp freezer warehouse**
  Recommended for blood banks and other medical supplies that require a deep freeze.

$200
COST PER SQ. FT.

Modern cold storage facilities can cost upward of $200 per square foot to construct. Compared to traditional warehouse space, this figure is roughly **four times the cost**.

**NEW FOUNDATIONS**

Many factors go into the slab design for cold storage. The increase in insulation and strength of the slab can be a large factor in increased construction costs.

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<tr>
<th><strong>TRADITIONAL WHSE</strong></th>
<th><strong>COLD STORAGE</strong></th>
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<tbody>
<tr>
<td>6” SLAB</td>
<td>6” REINFORCED SLAB</td>
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<td>4” INSULATION</td>
<td>4” UNREINFORCED SLAB</td>
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50-75%
COST INCREASE FOR COLD STORAGE VS TRADITIONAL WAREHOUSE SLAB

**Packaged refrigerations systems in existing facilities**

Trends towards packaged refrigeration systems allow easier addition of cold storage space in existing light industrial facilities. These systems are assembled off site and brought into the building improving safety, quality & often decreasing cost & schedule.

Depending on the existing structure, a reinforced slab may be needed to support the weight of the new system.

2K
COLD STORAGE FACILITIES

According to CoStar & HFF, there are more than 2,000 cold storage facilities totaling ~193 million square feet in the United States.

50%

Roughly 50% of existing inventory was built **prior to 1980** and therefore is or is becoming functionally obsolete.

methodarchitecture.com
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Operating with the flexibility of a smaller firm with big reach, Method Architecture is a full-service architecture firm specializing in ground-up and tenant interiors projects encompassing industrial, office, retail, public and breweries.

WHERE WE WORK

*Reciprocal state licenses can typically be obtained in 4 weeks through our NCARB certification

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