



STAFF MEMO

MEETING DATE:	February 12, 2026
TITLE:	Metal Building Materials
PROJECT MANAGER:	Caitlin Rice, AICP, Senior Planner
REQUESTED ACTION:	DISCUSSION

Summary

Metal building materials are traditionally constructed of steel, an alloy made of primarily iron and carbon that binds, giving extra rigidity and wear resistance. Steel is easily adaptable to harsh environments, extreme heat and cold and easily malleable to fit needs of the consumer.

The first known metal-framed structures were built in late 1700s England for cotton mills and agricultural buildings. It was quickly noticed using metal was more economic and less flammable and gained traction, spreading to the United States in the early 1800s. Corrugated steel shelters like Quonset huts, originally surfaced as a quick and cost-effective shelter during WWII. The benefits of fast construction, strength and portability these metal structures caught the attention of builders and architects, and the material has continued to evolve for a variety of different uses and styles. Steel is also highly recyclable, recycled at a general rate of 74% of both end-of-life scrap and new scrap, making it a sustainable and more economic choice for construction and manufacturing.

The City of Collinsville prohibits metal building materials due to general concerns of appearance, rust, preserving character of neighborhoods and commercial districts, maintenance and quality of the building. Currently, there are a few exceptions for the use of metal built into the Zoning Ordinance:

Residential:

- Metal is permitted for roofing and ornamental accent materials, trim elements, soffit and fascia, gutters and downspouts and other similar accent or functional elements
- High-ribbed or standing seam metal roofing panels are permitted (durable, all-weather and rust resistant with a minimum $\frac{3}{4}$ " rib heights)

Nonresidential:

- Accent material (no greater than 10% of façade)
 - Permits metal for beams, lintels, trim elements and ornamentation only.
- Primary material (75% of façade or greater)
 - Permits brick, masonry, stone, and stucco or cementitious finish
 - It is staff's current interpretation that a flush metal panel coated in a stucco or cementitious finish could meet the intent as a primary material if appears to mimic masonry.
- High-ribbed roofing panels permitted.

Over the past few years, staff has received numerous requests for metal as a building material on commercial and residential properties. Applicants often state that their driver for metal building materials are cost savings, energy efficiency and flexibility in design. Some projects have been approved, such as the new Vermeer Midwest Building on Fournie Lane (approved 2022) and the new Lerch Properties

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Headquarters building on North Bluff Road (approved 2025). Vermeer's design consists of flush steel insulated panels. These panels have built in insulation and mimic the appearance of pre-cast concrete panels. This type of material also has a very high R-value to help with energy efficiency. The Lerch building also utilizes insulated metal wall panels with a vertical ribbed style achieving a different aesthetic than Vermeer. Both projects are located in mostly industrial areas of the City.



Lerch Headquarters



Staff recognizes that the options and quality of metal building materials and protective treatments to prevent rust, corrosion and deterioration such as galvanization, zinc layers, powder coating, epoxy coating and sealants has changed rapidly over the past 200 hundred years. Therefore, staff is seeking feedback from the Planning Commission to see the appetite of providing more flexible building design requirements to adapt to the ever-changing architectural landscape.

Research

Staff has conducted preliminary research on the varying types of metal building materials used in today's construction for the Planning Commission to consider. The source linked below, Buildings Guide provides a breakdown of commonly used metal siding panels or metal wall cladding systems and their advantages/disadvantages and common uses. These include:

Corrugated Metal Siding

- Corrugated metal is one of the original styles of metal materials, however, as technology and architecture have advanced overtime, we see it requested less often.



Corrugated Metal Siding

Through Fastener Metal Siding

- Typically used for personal and commercial garages, farm storage buildings, hobby shops and automotive shops.
- Less expensive, durable and easy to install, can resist even hurricane force winds when properly installed on grit supports.
- Commonly used for building kit packages.
- This design is vertical ribs, which is seen as less visually attractive and not typically recommended for office or retail space. This design is currently permitted for roofing.



Through Fastener Metal Siding

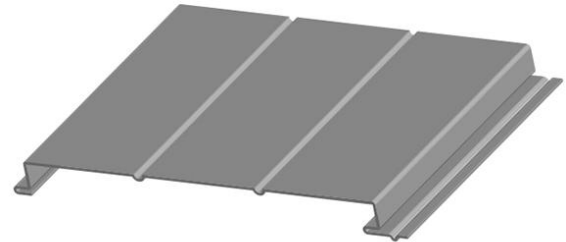
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- This type also has little thermal value on its own and must be supplemented with field installed insulation. Fasteners are exposed which may lead to corrosion over time.
- Lerch Headquarters is an example of this style.
- This style is commonly requested for residential accessory structures for garages or storage sheds.

Concealed Fastener Metal Siding

- Concealed Fastener siding has hidden fasteners located inside interlocking panel joints. Provides smooth, clean aesthetic and protects fasteners from the elements. Typically, more stable and weather tight than through fasteners.
- Increased cost and installation time requires additional trim and flashing.
- Utilized often for modern warehouses, residential homes, office complexes and medical offices.
- Standing seam panels are concealed fastener metal panel systems, commonly used for roofing such as the Collinsville Fire Station 1.



Concealed Fastener Metal Siding

Below is a side by side comparison between Exposed and Concealed fastener panels.



Insulated Metal Panels

- Insulated metal panels are integrated units consisting of a foam core between exterior and interior metal skins.
- Common on commercial metal buildings because of thermal qualities, design flexibility, fast installation and attractive appearance.
- Come in variety of colors, sizes, finishes and profiles. Adaptable for modern offices, banks, warehouses, industrial facilities, hospitality and healthcare facilities.
- Recent advancements in composite siding panel production.
- Vermeer Midwest is an example of this style.



Insulated Metal Panels

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Recommendation

Staff is requesting the Planning Commission to discuss and provide feedback on expanding permissibility of metal building materials in the City.

Some questions to facilitate discussion:

1. Are there any metal building material types the Planning Commission finds suitable?
2. Should residential and commercial have metal building material options?
3. Are there only certain areas of the City the Planning Commission finds suitable for metal?

Sources:

[Federal Steel Supply](#)

[Pacific Building Systems](#)

[Build Steel](#)

[Buildings Guide](#)