



PLANNING REPORT

TO: Phil Kern
FROM: Alan Brixius
DATE: April 7, 2010
RE: Delano – Crow River Bank Variance for Exterior Materials
FILE NO: 432.07 – 10.02

BACKGROUND

The B-2, General Business District contains exterior building elevation standards found in Section 51.21, Subd. H.3. This standard requires that an average of the following materials – brick, dimensioned stone, rock faced block, decorative concrete panel, architectural concrete block, cast-in-place concrete, stone, stucco, wood, or glass – constitutes no less than 90 percent of any exterior wall façade of buildings. This leaves 10 percent of the exterior wall façade for other materials.

Crow River State Bank has submitted an application for a variance to this requirement. They are requesting to upgrade the look of their existing building located at 710 Babcock Boulevard East by replacing the existing cedar channel board siding with a 24 gauge recycled metal (steel) covering.

The applicants have submitted a rough calculation of the percentage that the proposed steel material shall compose of the exterior wall facades:

Wall Facades	Estimated Percentage of Wall Facade
South Elevation	± 37%
East Elevation	± 14%
North Elevation	± 11%
West Elevation	± 16%

As shown above, the steel material shall constitute more than 10 percent of each wall façade of the building. Therefore, the proposal does not meet the Ordinance requirement and thus requires a variance to the exterior building materials requirement.

In a February 22, 2010 letter, the applicant outlines the changes in exterior materials is to replace a wood finish that has become deteriorated due to environment and extensive exposure to the south sun. The metal finish material is intended to resemble the existing wood finish in color, while establishing a more desirable maintenance free siding.

ISSUES ANALYSIS

Zoning. Section 51.02, Subd. D of the Delano Zoning Ordinance outlines the following criteria for approving a variance from the City zoning standards. These criteria do not easily accommodate a variance from the City's architectural standards:

Section 51.02.D:

1. Variances. Variances from the literal provisions of the ordinance may be granted in instances where their strict enforcement would cause undue hardship because of circumstances unique to the individual property under consideration.

a. Findings of Fact. In considering all requests for variance or appeal and in taking subsequent action, the City shall make a finding of fact:

1) That the property in question cannot be put to a reasonable use if used under conditions allowed by the official controls.

Response: The building is currently fully conforming to the City's B-2 District performance standards.

2) That the plight of the landowners is due to physical circumstances unique to his property not created by the land owner.

Response: The applicant has not investigated alternative materials that may conform to City standards.

3) That the hardship is not due to economic considerations alone if reasonable use for the property exists under the terms of the ordinance.

Response: The choice of materials is to reduce maintenance costs associated with the cedar exterior finish.

4) That granting the variance requested will not confer on the applicant any special privilege that would be denied by this ordinance to other lands, structures, or buildings in the same district.

Response: The City has not previously approved exceptions to the architectural standards within the B-2 Zoning District.

- 5) That the proposed actions will be in keeping with the spirit and intent of the ordinance.

Response: The objective of the B-2 District architectural standards is to promote attractive, high quality commercial buildings. The emphasis on masonry construction is to promote aesthetically pleasing, durable buildings. The applicant's building is a masonry building that offers the aesthetic pleasing appearance along Highway 12. The change in building materials will still mimic the existing building appearance but offers a more long lasting durable finish. In this respect, the variance would be keeping the intent and spirit of the ordinance.

Recognizing that it would be difficult to satisfy the aforementioned variance criteria, City staff brought this application as a concept before the Planning Commission and City Council to determine if the applicant's request was reasonable and if the end building appearance would be attractive and appropriate. The Planning Commission expressed the following comments:

1. Generally, the change of building materials would not noticeably change the building's appearance. The metal finish would replace painted wood, maintaining the same color and configuration of the eaves.
2. The Planning Commission was concerned with the percentage of metal (37 percent) on the south elevation. They felt if the percentage was 20 percent or less, a change in the ordinance may be acceptable.
3. The request does not satisfy the variance criteria. Approval of the variance could establish a precedent for future similar requests that may not be as aesthetically acceptable.
4. The Planning Commission inquired as to what other materials the applicant considered that may comply with the City standards.

Staff presented ordinance options to the City Council that may accommodate the bank's request including changing the percentage of allowed metal finish and examining the definition of roof. The Council was generally supportive of the request, but did not want to compromise future B-2 commercial development. They cited the following observations:

1. The bank is a masonry building and the cedar and/or metal finishes are only architectural accents.
2. The metal finish replicates the painted wood finish in color and design.
3. The bank building is custom designed architecture and unique in its roof design and overall appearance. In this respect, it is different from other recent contemporary commercial buildings.

4. The request is to maintain the appearance of the building with a durable finish.

The Council directed staff to work with the applicant to attempt to find a means to address this issue. The issue at hand is that the ordinance does not permit the use of metal finishes above 10 percent of the exterior wall surface. In addressing this issue, the City has two options:

Option 1. Based on the criteria for variance and findings outlined earlier in this report, the City may choose to deny the variance request and require the bank to seek alternative materials for the building renovation that meet the City's B-2 standards.

Option 2. The Planning Commission and City Council may find that use of metal finishes in the renovation of the bank is reasonable for the following reasons:

- a. A goal of the Delano Comprehensive Plan is to enhance the commercial image along Highway 12. The design components for achieving this goal include attractive masonry buildings and quality site design. The Crow River Bank fulfills this goal.
- b. The use of metal finish is intended to replace less durable wood finishes while maintaining the appearance and architectural design of the building. Maintenance and durable structures in the City's commercial areas are promoted by the City.
- c. The bank's architectural design which includes its unusual roof and eaves is solely unique to this site. This design is unique when compared to other contemporary commercial buildings such as the Ridgeview Clinic, Delano Crossings, True Value Hardware, or McDonald's.
- d. Metal finishes are not prohibited in the B-2 Zoning District. Roofs and 10 percent of the wall is allowed to be of a metal finish within the B-2 District. The variance application requested by the bank is reflective of the building's unique custom architecture.

If the Planning Commission and City Council agree with the findings of Option 2, they may approve the requested variance.

Text Amendment. The variance procedures are difficult to apply to requests for architectural flexibility as presented in this case. The City may grant the variance based on unique hardship's associated with the bank's building unique architecture and maintenance needs. This will limit the variance to this location exclusively. However, if the City believes that there may be similar requests in the future, staff would recommend a text amendment to allow an exception to the B-2 exterior building elevation by conditional use permit provided the following conditions apply:

1. The building is existing and fully conforming to the B-2 building elevation standards.
2. The introduction of metal finish as a maintenance upgrade to replace a deteriorating exterior wall finish.
3. The metal finish is an architectural accent that replicates the original finish being replaced in color, dimension, and design.
4. The masonry exterior finish remains the predominate finish of any exterior wall.
5. The introduction of metal finishes preserves the appearance of the original building design.

RECOMMENDATION

The Planning Commission and City Council have two options in considering this variance request. Based on Planning Commission and City Council discussions and the City's goals for aesthetic commercial buildings, the need to maintain existing buildings and the promotion of durable building finishes, staff would recommend approving the variance with the findings under Option 2 of this report.

The City may also consider a future zoning text amendment allowing an exception to the B-2 exterior building elevations.

c: Marlene Kittock
Wendy Biel
Scott Dornfeld
Mark Johnson
Crow River Bank

Attachments:

Exhibit A: South Elevation Photo
Exhibit B: Letter from Crow River Bank
Exhibit C: Background Information on the Metal Sign
Exhibit D: Email Correspondence



EXHIBIT A



Crow River Bank
Delano • Mound

February 22, 2010

Applicant submits this request for the following variance approval:

Crow River Bank recognizes the need to upgrade the look of its building located on Highway 12 at 710 Babcock Blvd E., Delano. Presently the building's roof soffit and fascia consists of original wood material, which has now become deteriorated in nature due to the environment and extensive exposure to the southern sun. Maintenance to the existing material has become cost prohibitive.

It is the request of Crow River Bank to replace the existing material with 24 gauge recycled metal (steel) covering (information attached) which provides a 20 year guaranty for non-fading by the sun and consistent with maintenance free material. It is the preference of the building's owner that the above material, as recommended, be used as a substitute to minimize ongoing maintenance concerns and retain an ongoing improved aesthetic look of the building.

Submitted By:

Dwight Bacon, President



680 Andersen Dr. • Pittsburgh, PA 15220-2700 • 412.922.2772 • sri@recycle-steel.org

TO: Architects, Engineers, Designers, and Specifiers

RE: LEED Version 2.1 Recycled Content Value of Steel Building Products

The U.S. Green Building Council Leadership in Energy & Environmental Design (LEED™) Green Building Rating System aims to improve occupant well-being, environmental performance and economic returns of buildings using established and innovative practices, standards and technologies.

Materials & Resources Credit 4: Recycled Content intends to increase demand for building products that incorporate recycled content materials, therefore reducing impacts resulting from extraction and processing of new virgin materials. As discussed and demonstrated below, steel building products contribute positively toward earning points under Credit 4.1 and Credit 4.2. The following is required by LEED Version 2.1:

Credit 4.1 (1 point) "Use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the post-industrial content constitutes at least 5% of the total value of the materials in the project."

Credit 4.2 (1 point) "Use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the post-industrial content constitutes at least 10% of the total value of the materials in the project."

"The value of the recycled content portion of a material or furnishing shall be determined by dividing the weight of recycled content in the item by the total weight of all material in the item, then multiplying the resulting percentage by the total value of the item." Since steel (the material) and steel (the building product) are the same, the value of the steel building product is directly multiplied by steel's recycled content, or,

Steel Recycled Content Value = (Value of Steel Product) (Post-Consumer % + ½Post-Industrial %)

The Inherent Recycled Content of Today's Steel fact sheet provides post-consumer and post-industrial recycled content percentages for North American steel building products. These percentages and values of steel building products are easily entered into LEED Letter Template spreadsheet for calculation. To illustrate steel recycled content values, manual calculations are shown below for typical Basic Oxygen Furnace (BOF) and Electric Arc Furnace (EAF) steel building products with nominal \$10,000 purchases, using 2002 data from the fact sheet. Steel building products include light gauge steel framing, structural steel framing (wide flange beams, channels, angles, etc.), rebar, roofing, siding, decking, doors and sashes, windows, ductwork, pipe, fixtures, hardware (hinges, handles, braces, screws, nails), culverts, storm drains, and manhole covers.

BOF Steel Recycled Content Value for Typical Product: *Light Gauge Steel Framing*

Value = (\$10,000) (22.6 % + ½3.4 %) = (\$10,000) (26.80 %) = \$2,680 (Exceeds 5% and 10% goals)

EAF Steel Recycled Content Value for Typical Product: *Wide Flange Structural Steel Framing*

Value = (\$10,000) (59.0 % + ½31.9 %) = (\$10,000) (74.95 %) = \$7,495 (Exceeds 5% and 10% goals)



This paper provides an overview of the methods used to produce steel in North America today, and describes steel's inherent recycled content. Contemporary technologies produce steel in two ways, both of which require old steel to make new.

The basic oxygen furnace (BOF) process uses 25 to 35 percent old steel to make new. It produces products--such as automotive fenders, encasements of refrigerators, and packaging like soup cans, five-gallon pails, and 55-gallon drums--whose major required characteristic is drawability.

The electric arc furnace (EAF) process uses virtually 100 percent old steel to make new. It produces products--such as structural beams, steel plates, and reinforcement bars--whose major required characteristic is strength.

Many are surprised to learn that steel is the world's, as well as North America's, most recycled material, and in the United States alone, almost 69 million tons of steel were recycled or exported for recycling in 2003. This is done for economic as well as environmental reasons. It is always cheaper to recycle steel than to mine virgin ore and move it through the process of making new steel. However, it should also be clearly understood that many steel applications are durables, and even though two out of every three pounds of new steel are produced from old steel, the fact that cars, appliances, and bridges last a long time makes it necessary to continue to mine virgin ore to supplement the production of new steel. Economic expansion, domestically and internationally, creates additional demand that cannot be fully met by available scrap supplies.

Unlike other competing industries, recycled content in the steel industry is second nature. The North American steel industry has been recycling steel scrap for over 150 years through the 1,800 scrap processors and some 12,000 auto dismantlers. Many of them have been in the business for more than 100 years.

The pre-consumer, post-industrial, post-consumer, and total recycled content of steel products in the United States can be determined for the calendar year 2003 using information from the American Iron and Steel Institute (AISI), the Institute of Scrap Recycling Industries (ISRI), and the

2003

The Inherent Recycled Content of Today's Steel

U.S. Geological Survey. Additionally, a study prepared for the AISI by William T. Hogan, S.A., and Frank T. Koelble of Fordham University is used to establish pre- and post-consumer fractions of purchased scrap.

Individual company statistics are not applicable or instructive because of the open loop recycling capability that the steel and iron industries enjoy, with available scrap typically going to the closest melting furnace. This open loop recycling allows, for example, an old car to be melted down to produce a new soup can, and then, as the new soup can is recycled, it is melted down to produce a new car, appliance, or perhaps a structural beam used to repair some portion of the Golden Gate Bridge.

Basic Oxygen Furnace

The basic oxygen furnace (BOF) facilities consumed a total of 15,772,900 tons of ferrous scrap in the production of 50,941,700 tons of liquid steel during 2003. Based on U.S. Geological Survey statistics, 1,738,800 of these ferrous scrap tons had been generated as unsalable steel product within the confines of these steelmaking sites. In the steel industry, these tons are classified as "home scrap," but are a mix of pre-consumer scrap and post-industrial scrap. Estimates by the Steel Recycling Institute identify about 80% of this home scrap as post-industrial scrap, equating to 1,391,000 tons (1,738,800 x 80%). Additionally, these operations reported that they consumed 148,800 tons of obsolete scrap (buildings and warehouses dismantled on-site at the mill) during this time frame. This volume is classified as post-consumer scrap.

For more information, please contact the Steel Recycling Institute at 1-412-922-2772, or visit us online at www.recycle-steel.org.



As a result of the above, based on the total scrap con-

sumed, outside purchases of scrap equate to 13,885,300 tons [15,772,900 - (1,738,800 + 148,800)]. According to the Fordham University study, the post-consumer fraction of the purchased ferrous scrap would be 83.4 percent, while 16.6 percent of these purchases would be pre-consumer. This equates to 2,305,000 tons of pre-consumer scrap (13,885,300 x 16.6%). This "prompt scrap" is mainly scrap generated by manufacturing processes for products made with steel. It is also considered post-industrial scrap.

Therefore, the total recycled content to produce the 50,941,700 tons of liquid steel in the BOF is:

$$15,772,900 / 50,941,700 = 31.0\%$$

(Total Tons Ferrous Scrap / Total Tons Liquid Steel)

Also, the post-consumer recycled content is:

$$(13,885,300 - 2,305,000) + 148,800 = 11,729,100$$

and

$$11,729,100 / 50,941,700 = 23.0\%$$

(Post-Consumer Scrap / Total Tons Liquid Steel)

Finally, the post-industrial recycled content is:

$$(1,391,000 + 2,305,000) / 50,941,700 =$$

$$3,696,000 / 50,941,700 = 7.3\%$$

(Post-Industrial Scrap / Total Tons Liquid Steel)

Electric Arc Furnace

The electric arc furnace (EAF) facilities consumed a total of 44,661,700 tons of ferrous scrap in the production of 46,310,300 tons of liquid steel during 2003. Based on U.S. Geological Survey adjusted statistics, 12,124,000 of these ferrous scrap tons had been generated as unsalable steel product within the confines of these steelmaking sites. Again, in the steel industry, these tons are classified as "home scrap," but are a mix of pre-consumer scrap and post-industrial scrap. Estimates by the Steel Recycling Institute identify about 80% of this home scrap as post-industrial scrap, equating to 9,699,200 tons (12,124,000 x 80%). Additionally, these operations reported that they consumed 28,700 tons of obsolete scrap (buildings and warehouses dismantled on-site at the mill) during this time frame. This volume is classified as post-consumer scrap.

As a result, based on the total scrap consumed, outside purchases of scrap equate to 32,509,000 tons [44,661,700 (12,124,000 + 28,700)]. According to the Fordham University study, the post-consumer fraction of the purchased ferrous scrap would be 83.4 percent, while 16.6 percent of these purchases would be pre-consumer.

This equates to 5,396,500 tons of pre-consumer scrap (32,509,000 x 16.6%). This "prompt scrap" is mainly scrap generated by manufacturing processes for products made with steel. It is also considered post-industrial scrap.

Therefore, the total recycled content to produce the 46,310,300 tons of liquid steel in the EAF is:

$$44,661,700 / 46,310,300 = 96.4\%$$

(Total Tons Ferrous Scrap / Total Tons Liquid Steel)

Also, the post-consumer recycled content is:

$$(32,509,000 - 5,396,500) + 28,700 = 27,141,200$$

and

$$27,141,200 / 46,310,300 = 58.6\%$$

(Post-Consumer Scrap / Total Tons Liquid Steel)

Finally, the post-industrial recycled content is:

$$(9,699,200 + 5,396,500) / 46,310,300 =$$

$$15,095,700 / 46,310,300 = 32.6\%$$

(Post-Industrial Scrap / Total Tons Liquid Steel)

The above discussion and calculations demonstrate conclusively the inherent recycled content of today's steel in North America. To buy steel is to "Buy Recycled."

Understanding the recycled content of BOF and EAF steels, one should not attempt to select one steel producer over another on the basis of a simplistic comparison of relative scrap usage or recycled content. Rather than providing an enhanced environmental benefit, such a selection could prove more costly in terms of total life cycle assessment energy consumption or other variables. Steel does not rely on "recycled content" purchasing to incorporate or drive scrap use. It already happens because of the economics. Recycled content for steel is a function of the steelmaking process itself. After its useful product life, regardless of its BOF or EAF origin, steel is recycled back into another steel product. Thus steel with almost 100 percent recycled content cannot be described as environmentally superior to steel with 30 percent recycled content. This is not contradictory because they are both complementary parts of the total interlocking infrastructure of steelmaking, product manufacture, scrap generation and recycling. The recycled content of EAF relies on the embodied energy savings of the steel created in the BOF. Steel is truly the most recycled material.

April, 2004



----- Original Message -----

From: [Scott Dornfeld](mailto:Scott.Dornfeld@delano.mn.us)

To: [Alan Brixius](mailto:Alan.Brixius@delano.mn.us) ; [Marlene Kittock](mailto:Marlene.Kittock@delano.mn.us) ; [Phil Kern](mailto:Phil.Kern@delano.mn.us)

Sent: Monday, March 15, 2010 8:16 AM

Subject: FW: Crow River Bank

From: Brett Looney [<mailto:brettl@nulook.net>]

Sent: Friday, March 12, 2010 9:52 AM

To: 'Scott Dornfeld'

Subject: RE: Crow River Bank

Good Morning Scott,

When we were first contacted by Dwight he wanted metal panels because they have very little to no maintenance required. With a Kynar 500 paint finish he gets a 20 year warranty for cracking, fading, and peeling.

Metal exteriors is all we do so we did not discuss any alternative materials.

Brett Looney

Sales/Estimating

NuLook Exteriors, Inc

952.882.8787

Fax: 952.882.7860

brettl@nulook.net

From: Scott Dornfeld [<mailto:sdornfeld@delano.mn.us>]

Sent: Friday, March 12, 2010 8:54 AM

To: 'Brett Looney'

Cc: 'Dwight Bacon'; 'Alan R. Brixius'; 'Phil Kern'

Subject: RE: Crow River Bank

Hi Brett,

The City has a question for you, while talking with Dwight did you look at alternate coverings for the exterior of the bank. A concern from the Planning Commission they are worried about the amount of the exterior finish being covered with the metal siding.

Scott

Scott Dornfeld

Building Official

City of Delano

www.delano.mn.us

sdornfeld@delano.mn.us

d: 763-972-0532

f: 763-972-6174

From: Brett Looney [<mailto:brettl@nulook.net>]

Sent: Thursday, March 11, 2010 9:03 AM

To: 'Scott Dornfeld'

Subject: RE: Crow River Bank

Good Morning Scott,

We do not have any prints per say but we do have a picture of the south elevation.

EXHIBIT D

We would be covering over the blue material.
I hope this helps

Brett Looney
Sales/Estimating
NuLook Exteriors, Inc
952.882.8787
Fax: 952.882.7860
brettl@nulook.net

From: Scott Dornfeld [mailto:sdornfeld@delano.mn.us]
Sent: Wednesday, March 10, 2010 12:17 PM
To: 'Brett Looney'
Subject: RE: Crow River Bank

Thanks, Brett for the information. I'll forward this to the city planner.

Scott

Scott Dornfeld
Building Official
City of Delano
www.delano.mn.us
sdornfeld@delano.mn.us
d: 763-972-0532
f: 763-972-6174

From: Brett Looney [mailto:brettl@nulook.net]
Sent: Wednesday, March 10, 2010 10:08 AM
To: sdornfeld@delano.mn.us
Cc: 'Dwight Bacon'
Subject: Crow River Bank

Hello Scott,
Here are the approximate percentages of metal panels to be installed, per total wall space per side of the Crow River State Bank.

East side metal panels 12% of entire wall area
West side metal panels 14% of entire wall area
South side metal panels 47% of entire wall area

This does include the upper roof area for all three sides.
Please let me know if you have any questions.

Brett Looney
Sales/Estimating
NuLook Exteriors, Inc
952.882.8787
Fax: 952.882.7860
brettl@nulook.net