

City of Scottsbluff, Nebraska

Monday, July 8, 2013

Regular Meeting

Item NewBiz3

Special Use Permit - Rendering Plant

Special Permit: Rendering Plant in M-2

Applicant: City Council Referral

Owner: City of Scottsbluff

Location: Immigrant Trail Road

Staff Contact:



SCOTTSBLUFF PLANNING COMMISSION Staff Report

To:	Planning Commission	Zoning:	M-2
From:	Development Services Department	Property Size:	43 acres
Date:	July 8, 2013	# Lots/Units:	2
Subject:	Special Permit Request – F2E Foods		
Location:			

Background: The City of Scottsbluff City Council referred the possibility of a special use permit to allow for rendering plants in a proposed M-2 Heavy Manufacturing and Industrial zoning district. The property is presently owned by the City. This property is east of the City in the extra territorial jurisdiction and situated south of Highway 26, north of South Beltline Highway East along Immigrant Trail Road.

Analysis: The City is interested in making it possible to allow a rendering plant on the property which is an allowable use with a special use permit from the Planning Commission in an M-2 zoning district. The surrounding properties include Frank Enterprises across the Highway, Red Barn Shop & Sargent Irrigation to the north. Other buildings to the east are storage grain bins owned by Frank Enterprises, there is also a water shop owned by the City of Minatare.

A large portion of the property is situated in the Gateway Overlay Zone and a landscaping plan will need to be submitted for review by the Planning Commission.

Lot Sizes: The two lots combined are approximately 43 acres. A site plan showing layout of building along with landscaping is attached. I have also attached an aerial photo for your review.

Planner's Report:

Special Use Permit - To allow a rendering plant in an M-2 Heavy Manufacturing and Industrial District.

The City is looking into the possibility of approving a special use permit for a rendering plant. Approval of the Permit will be subject to Council approval of the rezone from M-1 to M-2. All neighboring zoning is C-3 Heavy Commercial or Manufacturing and Industrial. The property is in the Gateway Green Overlay Zone and development plans will require approval of the Planning Commission.

The Planning Commission may issue a special permit for a Conditional Use subject to 25-13-3 and 25-13-6. Per the five required findings:

- 1.) The rendering service is a necessary and appropriate accessory function for a meat packing plant,
- 2.) The rendering will not be injurious to neighboring properties because the rendering aspect will be “state of the art” with odor control to be per the supplemental “Air Emission Controls” document. In addition, the rendering will be located to the rear of the property to lessen proximity to the more densely developed properties to the north and to the southeast,
- 3.) The “state of the art” rendering process and the location will not create special hazards or problems as long as a an approved Floodplain Development Permit is obtained,
- 4.) The Comprehensive Plan Future Land Use Map supports the industrial use,
- 5.) Reasonable conditions will be included to carry out the intents and purposes of the Conditional Use Permitting process.

There has been no comment received from the public.

Please note that per 25-13-9 that a building permit must be issued within one year of approval of the Conditional Use Permit or the Permit expires and per 25-13-11 that the Permit may not be transferred with change of ownership of the land.

In addition, the property is located in the Gateway Green Overlay Zone which requires approval of the Planning Commission. Appropriate development plans may be submitted to the Planning Commission at a later date.

Staff Recommendation: Approve a Conditional Use Permit for a rendering plant in an M-2 Heavy Manufacturing and Industrial District, with the following conditions;

- 1.) That the rendering plant will use the “state of the art” process as described in the supplement to the application or a process that is functionally equivalent or better;
- 2.) That the rendering plant be located a minimum of five hundred feet (500’) from the north, northeast and southeast property line and a minimum of one hundred feet (100’) from the west and south property lines; and,
- 3.) That development plans to satisfy the Gateway Green Overlay Zone be submitted to the Planning Commission for review and approval prior to issuance of any building permit.

Findings of Fact could include; the property significantly abuts Heavy Manufacturing and Industrial District and predominantly abuts Light Manufacturing and Industrial District; Heavy Manufacturing and Industrial District is a logical transition from Light Manufacturing and Industrial District; the Industrial Zoning is in accordance with the Comprehensive Plan and per 25-13.3:

- 1.) The rendering service is a necessary and appropriate accessory function for a meat packing plant,
- 2.) The rendering will not be injurious to neighboring properties because the rendering aspect will be “state of the art” and will be located to the rear of the property to lessen

- proximity to the more densely developed properties to the north and to the southeast,
- 3.) The “state of the art” rendering process and the location will not create special hazards or problems as long as the location in the floodplain is properly filled and constructed,
 - 4.) The Comprehensive Plan Future Land Use Map supports the industrial use,
 - 5.) Reasonable conditions are included to carry out the purposes of the Conditional Use Permitting process.

RECOMMENDATION

Approve

Make a motion to approve the special permit to allow for a rendering plant in a proposed M-2 zoning district subject to the following condition(s):

Deny

Make a motion to disapprove the special permit for a rendering plant in a proposed M-2 zoning district to the following reason(s):

Table

Make a motion to TABLE the Special permit request for a rendering plant in a proposed M-2 zoning district for the following reason(s):

Air Emission Controls

Rendering facilities have extensive controls for odor and particulate emissions. Rendering plants are designed for capture and treatment of potentially odorous air and vapors. The room air ventilation systems are designed for maintaining negative pressures in the rooms, thereby preventing air escape from the rooms. Production operations that generate high intensity odors are designed with vapor and air collection systems that isolate the odor sources from the lower intensity room air. Odor control methods include the following processes:

- Chemical oxidation
- Combustion
- Thermal destruction
- Biological odor reduction
- Heat emission capture

Chemical oxidation involves absorbing the odorous compounds into water and then oxidizing the odorous compounds with a strong oxidizing agent such as chlorine or chlorine dioxide. Odorous compounds can also be oxidized directly in the vapor phase with ozone. The air from room air ventilation systems is usually scrubbed in a chemical oxidation system using packed bed scrubbers with chlorine, bleach, or chlorine dioxide. Cooking vapors have high odor intensity. Cooking vapors are often treated in a two-stage process. The vapors are cooled and particulate is partially removed in venturi scrubbers. The vapors are passed through a venturi pipe restriction at a high velocity. Water is sprayed upstream of venturi. The cooking vapors are cooled and portions of the particulate and aerosol grease entrained in the vapors are removed in the venturi. The vapors from the venturi can be further treated in a chemical packed bed scrubber.

Cooking vapors can also be condensed with an air-cooled condenser or a shell and tube condenser using non-contact cooling water. The non-condensable vapors can be treated chemically or incinerated in a boiler. The high intensity odors from rendering processes and non-condensable cooking vapors are often used blended with combustion air at the plant boilers. The odorous compounds are incinerated in the boilers.

Odorous compounds can be removed by thermal destruction. Thermal destruction involves heating the odorous vapors to very high temperatures that result in destruction of the odorous compounds. This technique is applied to treatment of cooking vapors and other very high intensity odors. The advantage of thermal destruction of cooking vapors is that it does not generate cooking vapor condensate. The water evaporated from the cooking process leaves via the air emissions rather than as a wastewater emission.

Odorous compounds are organic compounds that can be used as a food source by bacteria. Biofilters are used for biological removal of odor. A biofilter consists of a packed bed that serves as a support structure for bacterial growth. The odorous air is passed through the packed bed. The odorous compounds are absorbed into the moist bed and bacteria consume the compounds as a food source.

Additional controls on odor because the heat from the batch cooking process will be totally contained. The waste heat will be used to heat water in the main packing plant. The odors escape with emissions; but in this process there are low emissions because of the heat capture and, therefore, odors are significantly reduced.