



# Planning & Zoning Commission

COMMUNITY DEVELOPMENT DEPARTMENT

April 28, 2008 Meeting

**SUBJECT:** Consider the proposed Site Plans for the Pioneer Hi-Bred International Mendel Greenhouse Expansion.

**SYNOPSIS:**

Pioneer Hi-Bred International wishes to construct four new Greenhouses, a connecting structure and new Head House (total of 46,565 sq. ft.) and relocate an existing seasonal Screen House (approximately 9,500 sq. ft.). The subject site is zoned AR, Agricultural Reserve and CD, Conservation District with adjacent Floodway and Floodway Fringe.

The site is located north of NW 62<sup>nd</sup> Avenue and east of Beaver Creek.

**RECOMMENDATION:**

The staff recommends approval and provides the following motion for the Commission's consideration:

**The Planning & Zoning Commission recommends approval of PZ Case No. 08-10, the proposed Site Plans for the Mendel Greenhouse Expansion with the following Conditions:**

- 1. The project shall be in conformance and in accordance with the requirements, standards and regulations of the City of Johnston, and any other requirement of state or federal law or administrative rule.**
- 2. Defer sidewalk adjacent to NW 62<sup>nd</sup> until otherwise directed by the City Council at its sole discretion. Once the Council directs installation of the sidewalk, it shall be constructed immediately at the applicant's sole cost.**

*Prior to issuance of the Building Permit, the Site Plans shall:*

- 3. Include information on the location of Flood Hazard Overlay Zoning Districts relevant to this site. It appears that the proposed drive may be encroaching into the Floodway Fringe**

**and a Floodplain Development Permit may be required. The proposed use would be allowed, with an approved Permit.**

- 4. Include the addition of a KNOX lock on the proposed fence gate adjacent to the Head House, with access coordinated with the Johnston Fire Chief.**
- 5. Locate all proposed building exits, with review and approval by the Johnston Fire Chief.**
- 6. With reference to a Federal Emergency Management Agency Flood Insurance Rate Map (FIRM) the Site Plans must note the zone in which the site is located.**

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Attachments:

1. Plans Submitted by Civil Design Advantage (revised date: April 16, 2008):  
Sheet 1, Site Plan  
Sheet 2, Site Plan Construction Notes  
  
Sheet 1 of 1, Mendel, Krug Master Plan Update
2. Plans Submitted by Simonson & Associates (received April 24, 2008):  
Sheet A2.1, Greenhouse Addition (elevations)  
Sheet A2.2, Greenhouse Addition (sample elevations; not modified for this site)  
Sheet A1.1, Greenhouse Addition (plan view)
3. Background report provided by city staff.
4. Letter from Bob Veenstra, Veenstra & Kimm (dated March 21, 2008); 4 pages.
5. Letter of response from Brad Kuehl, Civil Design Advantage (dated April 16, 2008); 2 pages.

APPLICANT:

Pioneer Hi-Bred International Inc.  
P.O. Box 1000  
Johnston, IA 50131

REPRESENTATIVE:

Simonson & Associates  
Attention: Marty Barkley  
2420 – 128<sup>th</sup> Street  
Urbandale, IA 50323

Civil Design Advantage  
Attention: Brad Kuehl  
5501 NW 112<sup>th</sup> Street  
Grimes, IA 50111

BACKGROUND &  
PRIOR APPROVALS:

**PZ Case 79-25:** Krug Plant Breeding Facility, 7301 NW 62nd Avenue. The original building (Krug) was already in place. This request was for an accessory building on the site.

**PZ Case 80-6:** Addition to the Krug Plant Breeding Facility, 7301 NW 62<sup>nd</sup> Avenue.

**PZ Case 84-10:** Alfalfa Research Facility, 7305 NW 62<sup>nd</sup> Avenue (*later known as the Mendel Building*). This was a new, separate building proposed north of the existing Krug Plant Breeding Facility.

**PZ Case 89-23:** Addition to the Alfalfa Research Facility (*Mendel*).

**PZ Case 91-14:** Pioneer Research Greenhouse, Phase 1. This greenhouse (with future expansion expected of 25,500 sq. ft.) was located adjacent to the Alfalfa Research Facility (*Mendel*). A condition of approval was that a fire hydrant must be located within 500 feet of the building.

**PZ Case 92-9:** Phase II Greenhouse.

**PZ Case 93-10:** Phase III Greenhouse. The zoning of the site was C-1, but staff noted that this addition crossed over into the A-1 Zoning District. City staff interpreted the greenhouse as an accessory agricultural use to the research labs that would be similar to the agricultural fields and not a warehouse. As such, it did not require additional parking. City staff expressed concern about the availability of fire hydrants to protect the greenhouses.

**PZ Case 98-27:** Master Plan for the Krug Building, Mendel Building and Greenhouses. The zoning for the site was PC, Professional Commerce

Park. The Master Plan illustrated the development of the complex of buildings north of NW 62<sup>nd</sup> Avenue for the next 10-15 years, including the reconstruction of greenhouses destroyed by fire the previous summer. Three phases of improvements to office, research and greenhouse facilities were planned.

The Master Plan was approved by the City Council via Resolution 98-236 on November 2, 1998 with the following conditions:

1. Waive the surfacing requirement for service drive on the northwest side of the complex.
2. Once the applicant is ready to proceed with expansions to the Krug Building, then the staff shall review the elevations of the addition to ensure the exterior elevation is consistent with the existing building prior to a building permit being issued.
3. Defer sidewalk construction until directed by the City Council.

**PZ Case 05-15:** A proposed amendment to the Master Plan. An addition to the Lemnatech research through facility on the North/West side of the campus. The plan was approved via Resolution 05-147; however, it was never built.

**PZ Case 06-24:** Proposed Site Plans for the Mendel Greenhouse Expansion, to build an additional 13,220 square feet to their existing green houses. The building was intended to house research (x-ray) equipment and to expand their existing green house operations. Proposed exterior materials included split-face concrete masonry units (CMU) to match the existing building. The Site Plans were approved by the City Council via Resolution 06-164 on July 17, 2006.

**PZ Case 07-44:** Proposed Site Plans for the second Mendel Green House Expansion. The project included the addition of 1,800 sq. ft. of green houses. The Site Plans were approved by the City Council via Resolution 07-216 on October 15, 2007.

COMPREHENSIVE  
PLAN:

The Comprehensive Plan illustrates Industrial/Office Park in this area, with Agriculture adjacent to the Beaver Creek floodplain.

ZONING DISTRICT &  
BULK  
REGULATIONS:

The site is located within the P-C (Professional Commerce District) zone.

The Master Plan area includes the following areas:  
PC, Professional Commerce Park District;  
AR, Agricultural Reserve;  
CD, Conservation District;  
FF, Floodway Fringe Overlay District.

The site is adjacent to Beaver Creek and may also include the FW, Floodway Overlay District and FF, Floodway Fringe Overlay District.

**The proposed Site Plans should also include information on the location of Flood Hazard Overlay Zoning Districts relevant to this site. It appears that the proposed drive may be encroaching into the Floodway Fringe and a Floodplain Development Permit may be required. The proposed use would be allowed, with an approved Permit.**

TRAFFIC ACCESS &  
CIRCULATION:

This building addition will be serviced with existing roads.

The proposed loop drive (gravel surface) is intended for limited access and emergency vehicles and would be an extension of an existing limited access gravel drive. A security gate would be installed at the new Head House, to ensure limited access.

**Due to the proposed use, city staff is in agreement with the gravel surface. However, the Johnston Fire Chief requests the addition of a KNOX lock on the gate, and coordination with the Johnston Fire Department.**

PEDESTRIAN  
CIRCULATION AND  
SIDEWALKS:

No change is proposed.

As with the previous projects, the applicant is requesting that construction of sidewalk along NW 62<sup>nd</sup> Avenue be deferred until directed by the City Council.

PARKING AND  
LOADING:

No change is proposed to general parking and loading with this addition. No additional employees are proposed.

As requested by city staff, the proposed access drive will be designated “no parking”. The relatively narrow width of this access drive would not accommodate emergency equipment if vehicles were also parked there.

Pavement (asphalt or concrete) is required for the access drive and must be noted on the Site Plans.

PUBLIC UTILITIES:

Sanitary Sewer. As with the most recent greenhouse addition (PZ Case 07-44), the applicant is proposing that sanitary sewer will be extended through the building expansion.

Water. Water service is proposed to be extended from an existing 6-inch main, north and west on the site. Three new fire hydrants are also proposed. The Johnston Fire Chief is aware of the existing 6-inch main, and has approved the proposed extension.

Storm Sewer. Reference Surface Water Design (below).

SURFACE WATER  
DESIGN:

As with previous greenhouse expansions, stormwater detention on the site is not proposed. From the application: *“Based on the proximity to Beaver Creek and the overland flow and infiltration opportunities between this project and Beaver Creek on Pioneer property, no stormwater detention is being proposed at this time. In addition, Pioneer is trying to minimize disturbance of the existing agricultural ground.”*

POLLUTION  
PREVENTION PLAN  
(Erosion Control;  
NPDES Phase 2):

The applicant has applied for General Permit no. 2 from the Iowa Department of Natural Resources. Documentation of an executed permit will be required by the City of Johnston prior to issuance of any city permits.

FIRE PROTECTION:

In compliance; will provide a fire sprinkler system for the building expansion area as required.

Chief Krohse will review the plans submitted today by Simonson for building access locations.

FLOODPLAIN:

A note on Sheet 1, Site Plan states that the 100-year flood elevation is 816.

**With reference to a Federal Emergency Management Agency Flood Insurance Rate Map (FIRM) the Site Plans must note the zone in which the site is located.**

The proximity to Beaver Creek and the zoning associated with it has been addressed in the Zoning District section above.

OPEN SPACE:

The site exceeds minimum requirements and compliance is noted on the Mendel, Krug Master Plan Update.

LANDSCAPING:

No change is proposed.

BUFFERS:	None are required, since the adjacent property is also owned by the applicant and land use is the same.
ARCHITECTURE:	The proposed building addition is more than 300- feet from NW 62 <sup>nd</sup> Avenue, so the brick requirement does not apply.
SIGNAGE:	No additional signage is proposed.
SITE LIGHTING:	Additional exterior lighting is not proposed.
ADJACENT OWNERS COMMENTS:	Since all adjacent property is also owned by the applicant, letters were not sent by city staff.



March 21, 2008

David R. Wilwerding  
Community Development Director  
City of Johnston  
6221 Merle Hay Road  
P.O. Box 410  
Johnston, Iowa 50131-0410

✓ Issue has been addressed

○ Issue remains outstanding

JOHNSTON, IOWA  
PIONEER MENDEL GREENHOUSE NORTH EXPANSION  
SITE PLAN REVIEW

Veenstra & Kimm, Inc. has completed a review of the site plan of the Pioneer Mendel Greenhouse North Expansion project. Based on review the following comments are offered:

- ✓1. No sanitary sewer extension is proposed as part of the site plan.
- ✓2. The site plan notes sanitary sewer service to the new buildings will be provided by an extension of the existing sanitary sewer serving the existing greenhouse area.
- ✓3. The site plan notes domestic water service to the new building will be provided by an extension of the water service from the existing greenhouse buildings.
- ✓4. The site plan shows the extension of 6-inch water main and the construction of three new fire hydrants.
- ✓5. The hydrant coverage circles show there is adequate coverage except for the north part of the relocated screenhouse.
- ✓6. The new fire hydrants are located on an extension of the 6-inch water main. Currently the City of Johnston requires all water mains serving fire hydrants to be 8-inch diameter. The existing water main that is being extended for the greenhouse addition is believed to be a 6-inch water main. Given the size of the existing water main and the nature of the building expansion, the 6-inch water main may be adequate.

- ✓7. The size of the existing water main should be noted on the site plan.
- ✓8. The site plan does not appear to show any valving on the new 6-inch water main. It would appear appropriate to add valving so this entire reach of water main would not be vulnerable to a single water main outage. It is recognized water service is dependent upon the main feeder from the south. However, the north extension and west extension could be valved and isolated.
- ✓9. It is assumed the water main is privately owned. It is suggested the private ownership of both the existing water main and the new water main be noted on the site plan.
- ✓10. The site plan should include a notation the water main should be constructed in accordance with the Statewide Urban Standard Specifications and the most recent City of Johnston Supplemental Specification. It is anticipated construction of the water main will be in accordance with the 2008 edition of the Standard Urban Standard Specifications. The City of Johnston will be adopting its 2008 Supplemental Specification in April 2008. Construction of the water main should be in accordance with this soon to be adopted supplemental specification.
- ✓11. The site plan shows the extension of a gravel access drive around the perimeter of the new greenhouse building. The new drive connects to the existing drive serving the site.
- ✓12. The storm sewer on the existing site is anticipated to be privately owned. The storm sewer should be marked as privately owned.
- ✓13. The site plan shows an existing storm sewer that appears to extend to the west side of the new head house and mechanical building. It is assumed the existing storm sewer is privately owned. The ownership of the storm sewer should be identified on the plans. It may be beneficial if the site plan showed how this storm sewer would be affected by the new construction.

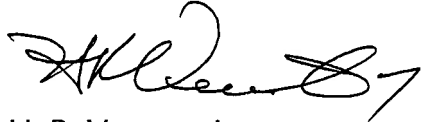
- ✓ 14. The site plan includes construction requirements for the storm sewer. The site plan does not appear to require the new storm sewer to conform with the Statewide Urban Standard Specifications. The City should determine whether the privately owned storm sewer must comply with the Statewide Urban Standard Specifications with the City of Johnston Supplemental Specification, or if the privately owned storm sewer is not required to conform. If conformance with the Statewide Urban Standard Specifications is required, this should be noted on the plans in a manner similar to the construction requirements for the water main extension.
- ✓ 15. The site plan submittal included a brief stormwater report prepared by Civil Design Advantage.
- ✓ 16. The western portion of the site is graded to drain directly west toward Beaver Creek. The eastern part of the site is tributary to an open channel that flows northerly to an 18-inch storm sewer. This storm sewer flows directly west and discharges overland at the northwest corner of the site.
- ✓ 17. The stormwater report shows the area tributary to the storm sewer to be 3 acres. The 18-inch storm sewer is adequately sized based on the drainage area.
- ✓ 18. The site plan proposes no stormwater detention. The site plan proposes that stormwater discharge directly west to the open area between the site and Beaver Creek.
- ✓ 19. The City of Johnston will need to determine whether the proposed direct discharge is acceptable for the site. If the direct discharge is acceptable, no additional stormwater analysis would be necessary. If the City determines direct discharge of the undetained flow is not satisfactory, additional stormwater analysis will be required.

The writer would note the value of detention on this site as it relates to its impact on Beaver Creek flows would be minimal. The proximity to the creek and the overland flow between the storm sewers and Beaver Creek negate the effective value of stormwater detention in the mitigation of flow rates in Beaver Creek. However, stormwater detention may be appropriate for other purposes, including policy considerations and water quality considerations.

David Wilwerding  
March 21, 2008  
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If you have any questions or comments concerning the project, please contact us at 225-8000.

VEENSTRA & KIMM, INC.

A handwritten signature in black ink, appearing to read "H. R. Veenstra Jr.", written in a cursive style.

H. R. Veenstra Jr.

16849-893

cc: Dave Cubit  
Deb Schiel-Larson  
Civil Design Advantage



CIVIL DESIGN ADVANTAGE L.L.C.

ENGINEERS, LANDSCAPE ARCHITECTS, PLANNERS & SURVEYORS

April 16, 2008

Deb Schiel-Larson  
City of Johnston  
Community Services & Planning  
6221 Merle Hay Road  
Johnston, Iowa 50131-2344

RE: Pioneer Mendel Greenhouse North Expansion  
Site Plan Submittal No. 2

Dear Deb:

On behalf of Pioneer Hi-Bred International Inc. and Simonson and Associates, we are pleased to submit herewith this Site Plan for a greenhouse expansion to the north of the existing Mendel greenhouses. There are four greenhouses proposed as well as a head house with a mechanical room. The project is located on the North Campus of the Pioneer complex at 7305 NW 62<sup>nd</sup> Avenue in Johnston.


Site improvements include grading for the building pads, extension of the fire access road around the addition and extension of water main and storm sewer.

Attached are:

- Four (4) Full-size Site Plan Copies
- Fifteen (15) Reduced Site Plan and Master Plan Update Copies
- Fifteen (15) Architectural Elevations
- One (1) Response to City Review Comments

The site plan has been revised per the City staff review comments dated March 24, 2008 as outlined in the attached Response. Please accept this information for consideration by the Planning and Zoning Commission at their regular meeting on April 28, 2008 in route to consideration by the City Council on May 5, 2008. Thank you.

Sincerely,  
CIVIL DESIGN ADVANTAGE, LLC

  
Brad G. Kuehl, Project Manager

cc: Michael O'Brien, Pioneer Hi-Bred International  
Marty Barkley, Simonson and Associates

CITY OF JOHNSTON  
COMMUNITY DEV. DEPT.  
DATE REC'D: 4.17.2008  
CASE NO.: P208-10

## **Response to City Review Comments dated March 24, 2008**

Prepared by Civil Design Advantage

The site plan dated March 14, 2008 has been revised to provide more separation between the headhouse and the first greenhouse (G). Grading and utilities have been updated accordingly. The storm sewer has been relocated to the same utility corridor as the water main. In addition to these site modifications, the City Review comments have been addressed as follows:

1. The proposed greenhouse expansion does not involve an increase in the number of employees.
2. Fire Chief Comments
  - The cumulative total square feet of the expansion project has been included.
  - The proposed access drive is and noted for fire access only and will not have parking.
  - No loading areas are proposed along the fire access drive.
3. The revised building elevations provided by Simonson and Associates will include proposed materials.
4. The amount of disturbed area will be approximately 4 acres. A copy of the NPDES General Permit No. 2 NOI is attached. A grading permit will be completed.
5. Based on the proximity to Beaver Creek and the overland flow and infiltration opportunities between this project and Beaver Creek on Pioneer property, no stormwater detention is being proposed at this time. In addition, Pioneer is trying to minimize disturbance of the existing agricultural ground.
6. Veenstra & Kimm's Comments
  - We understand that the existing 6-inch water service is adequate for the expansion project.
  - Valving has been noted for the private 6-inch water service extension.
  - The water service is private and noted accordingly on the site plan.
  - A note has been added to the Utility Notes stating that the water main shall be constructed in accordance with the 2008 edition of the Statewide Urban Standard Specifications and the most recent City of Johnston Supplemental Specification.
  - The storm sewer is private and noted accordingly on the site plan.
  - The existing storm sewer is private and noted accordingly on the site plan. This storm sewer serves the existing roof drainage from the existing screenhouse and will be separate (drainage area) from the proposed storm sewer.
  - A note has been added to the Utility Notes stating that the storm sewer shall be constructed in accordance with the 2008 edition of the Statewide Urban Standard Specifications and the most recent City of Johnston Supplemental Specification.
  - See Response 5 addressing the storm water detention for this project.