

### Variance Request Spangler Parcel October 25, 2016

The developer of the Spangler Parcel, Pizzuti, is formally requesting a variance to Section 160.030 of the Village of Romeoville Stormwater Management Ordinance. Due to the site's vicinity to the Lewis Airport, the release rates from the proposed stormwater management facilities are being increased from the rates required in Section 160.030 to drain the facilities in a shorter amount of time, as spelled out in the Federal Aviation Administration's (FAA's) guidelines.

While the proposed (post construction) release rates are slight greater than the maximum allowed release rates and defined in the stormwater ordinance, they are less than the runoff under existing (preconstruction) conditions and result in a net benefit to the watershed.

#### The Following addresses the ponds under Section 160.186(B):

#### **B.1) Common Address & Legal Description**

PARCEL 1:

THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 9, TOWNSHIP 36 NORTH, RANGE 10 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN WILL COUNTY, ILLINOIS.

#### PARCEL 2:

THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 9, TOWNSHIP 36 NORTH, RANGE 10 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN WILL COUNTY, ILLINOIS.

#### B.2) Names & Addresses of all owners of record of the legal title

Romeo Pinnacle 24 LLC c/o Pizzuti 2001 Butterfield Road Suite 440 Downers Grove, IL 60515

### **B.3)** If title to any of the land is held in trust, names and addresses of all beneficiaries of trust.

n/a

#### B.4) Names & Addresses of developers of land

Pizzuti 2001 Butterfield Road Suite 440 Downers Grove, IL 60515



## B.5) Names & Addresses of all consultants retained by the developer in connection with the application for a variance.

Jacob & Hefner Associates, Inc. 5030 38<sup>th</sup> Ave. Moline, IL 61265

#### B.6) Names & Addresses of all property owners within 250 feet of development

To be provided by the Village.

#### B.7) Specific feature(s) of the development that require a variance.

Southeast Pond & North/West Pond

### B.8) The specific provision of this chapter from which a variance is sought and the precise extent of the variance therefrom

160.030 - Release Rate

Southeast Pond—Increase the release rates as follows:

Existing Runoff Rates at the point of the pond outfall:

3.79 cfs (2-yr)

15.17 cfs (100-yr)

Allowable Release Rates per Stormwater Ordinance (Section 160.030):

0.63 cfs (2-yr)

2.36 cfs (100-yr)

**Proposed Release Rates:** 

1.59 cfs (2-yr)

5.29 cfs (100-yr)

North/West Pond—Increase the release rates as follows:

Existing 100-year discharge under Taylor Road = 82.4 cfs

Allowable Release Rate = 11.85 cfs PLUS by-pass flow (79.49 cfs)

Proposed Release Rate (including bypass flow) = 62.0 cfs

### B.9) A statement of the characteristics of the development that prevent compliance with the provisions of this chapter.

This site is adjacent to the Lewis Airport property. Therefore, the FAA's guidelines regarding hazardous wildlife attractants on or near airports, as described in Advisory Circular 150/5200-33B, were used in the design of the stormwater management facilities. Section 2-3(b) of the Advisory Circular states that for new stormwater management facilities, the detention ponds shall be designed, engineered, and constructed for a maximum 48-hour detention period after the design storm (100-year, 24-hour storm). In other words, the ponds should drain down completely with 48-hours after the design storm event. Using the village stormwater ordinance requirements would result in detention times greater than 48-hours after the design storm event.



While the actual size of the southeast stormwater management facility is based on village requirements, the restrictors were up-sized so the pond would drain to less than a half-inch of water at the 72-hour mark (48 hours after the 24-hour storm). This results in release rates of 1.59 cfs for the 2-year storm and 5.29 cfs for the 100-year storm. While these are greater than allowed by ordinance, they are significantly less than the existing conditions discharge rates.

For the large north/west stormwater management facility, there is a significant amount of offsite land that drains through the facility, both restricted and un-restricted. Some of this runoff from the upstream properties does not even reach the proposed stormwater management facility until after the 48-hour mark. Therefore, this facility was sized based on the village's stormwater ordinance. Then, the outfall pipes were sized so that, at 48-hours after the design storm event, the depth in the pond is less than a foot and the release rate from the facility is greater than the runoff entering the facility.

### B.10) A statement that the variance requested is the minimum variance necessary to permit the development.

The proposed southeast pond was sized per the village's stormwater management ordinance. Using the size that was determined per the allowable release rates from the ordinance, the restrictor sizes were then increased to allow the pond to drain within 48-hours after the design storm event. The proposed restrictor sizes are the minimum required to achieve the 48-hour requirement. Therefore, the variance requested for the southeast pond is the minimum necessary to satisfy the FAA guidelines.

The proposed large north/west stormwater management facility was sized per the village's stormwater management ordinance. That size was then used as the prosed conditions for the floodplain models. The outfall structures and pipes from this facility were then sized to take in to account the offsite, upstream runoff. When the allowable release rate, per the ordinance (11.85 cfs) is combined with the peak runoff from the upstream tributary areas (79.49 cfs), the theoretical "total allowable release rate" is 91.34 cfs. Our proposed release rate from this facility is 62.0 cfs. Consequently, we are proposing to release less than the "total allowable release rate" and, therefore, are requesting the minimum variance necessary to satisfy the FAA guidelines.

# B.11) A statement as to how the variance requested satisfies the standards set forth in 160.189 of this chapter.

160.189(A): Both of the proposed stormwater management facilities will restrict the outfall from the site to flow rates that are significantly lower than existing conditions. Therefore, the variance will not increase measurably the probability of flood damage to insurable structures.

160.189(B): This variance is the minimum required to satisfy the FAA guidelines.

- The proposed stormwater management facilities will provide an improvement to the quality of stormwater runoff, which is currently highly erodible cultivated farmland.
- The facilities are both open air vegetated facilities and have been designed in cooperation
  with the United States Fish and Wildlife Service (USFWS) to improve the quality of runoff
  and promote infiltration, while adhering to the FAA guidelines.

#### VARIANCE REQUEST -SPANGLER PARCEL

Taylor Road, Romeoville, Illinois



- The conveyance of the stormwater from the development will not increase the peak discharges from existing offsite conveyance facilities beyond the design capacity for the 2-year or 100-year flood frequency.
- The existing site is almost entirely cultivated farmland, with the exception of the homestead area. There are no wetlands located on the site and the floodplain that exists was mapped in error. However, floodplain volume is being maintained in the large stormwater management facility.

160.189(C): The proposed stormwater management facilities are sized per the village's stormwater management ordinance. These sizes were maintained and the restrictor sizes are increased to satisfy the FAA guidelines. Therefore, the variance is not requested solely for the purpose of increasing the density of the development nor impervious areas on the site

160.189(D): The variance will not have an effect on the cost of construction of this site. Therefore, it is not requested solely as a result of economic hardship.

160.189 (E): This variance is solely needed due to the proximity of the Lewis Airport.

160.189 (F): The circumstances are not self-imposed.

#### **Conclusion:**

The purpose of this variance request is to satisfy the FAA's guidelines regarding hazardous wildlife attractants on or near airports, due to the proximity of the Lewis Airport. The proposed stormwater management facilities were both sized per the village's stormwater management ordinance, ensuring there is sufficient storage volume. However, to satisfy the FAA requirements, the restrictors and outfall structures were sized to drain the facilities faster, resulting in release rates that are higher than the requirements set forth in Section 160.030 of the Village of Romeoville Stormwater Management Ordinance. However, the release rates are significantly less that the existing conditions discharge rates, providing a net benefit to the watershed.