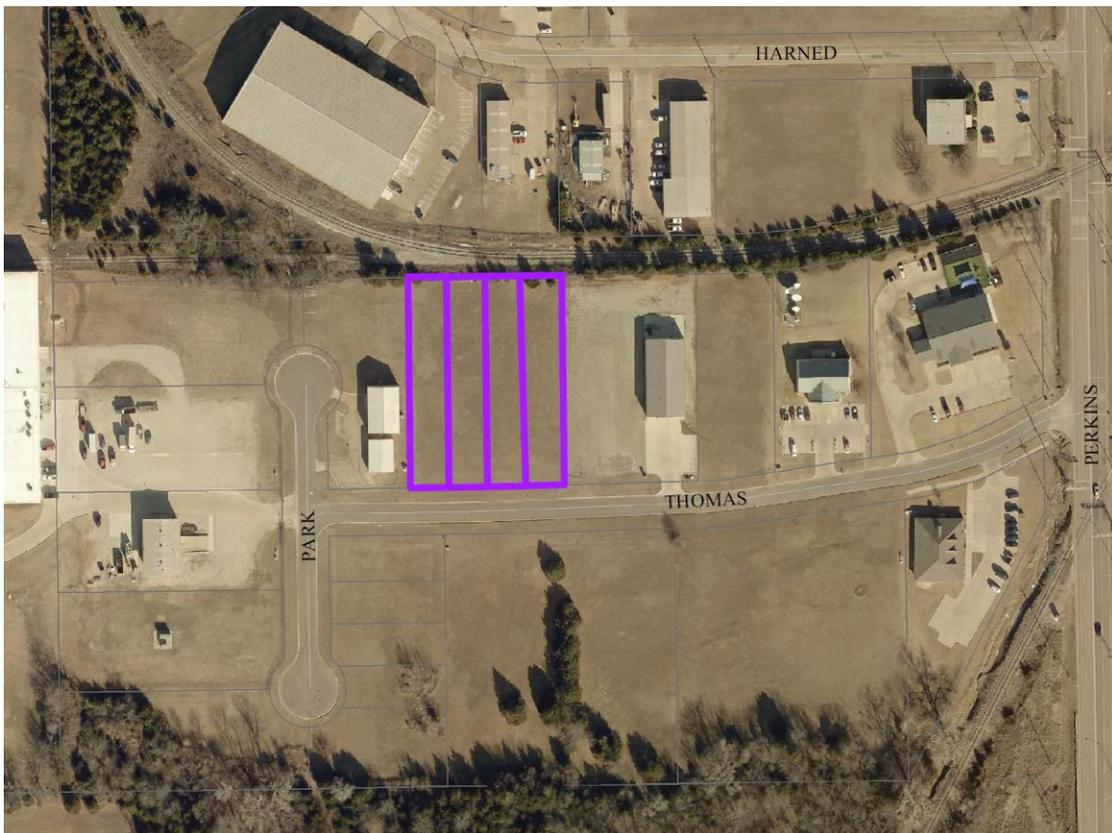


Date of Meeting: June 29, 2021
Subject: Variance Considerations: Parking Lot Detention
Project Name: Childress Industrial Park
Location: 304, 308, 310, & 314 E. Thomas Avenue

BACKGROUND

On May 17, 2021 an application was filed with the City of Stillwater requesting a variance from the municipal code prohibiting an increase in the peak discharge of runoff and requiring the use of storage and/or other water management facilities to regulate peak flows to allowable levels. The variance application was filed after the submittal and Engineering review of the Commercial applications (COMM21-0004, COMM21-0006, COMM21-0007, & COMM21-0008) for the construction of four new commercial warehouse, on April 27, 2021.



CODE APPLICATION

City Code, Chapter 35, Section 35-78(a). - Drainage Policies

- (1) The stormwater drainage system shall be designed to pass the peak stormwater run-off received from upstream and from the subject property for storms with durations up to 24 hours and return periods of up to 100 years.
- (2) All development, redevelopment, and earth changes shall be constructed so that it will not increase the frequency of flooding or the depth of flood flows for any storm, up to and including the 24-hour 100-year storm.
- (3) Peak flows shall not be increased at any location for any storm, up to and including the 24-hour 100-year storm.**
- (4) Regulation of peak flows to allowable levels, as determined by subsections (a)(2) and (3) of this section, shall be achieved by on-site or off-site storage and/or other water management facilities as provided in the city drainage standards.**
- (5) Subject to requirements for a drainage plan or earth change permit and of the city drainage standards, downstream conveyance may be improved or easements obtained for inundated areas to compensate for increased flow depths if such improvements comply with the policies of this chapter.
- (6) All development, redevelopment, and earth changes shall be constructed so that it will not cause harm to other properties as a result of concentrating flows.
- (7) On-site stormwater control may not be required for sites less than one acre in size if it is determined by the development services director that stormwater runoff from the site will not cause adverse effects as described in this chapter. The development services director may request that the applicant provide such information as required to make this determination. In such cases, a cash payment in lieu of on-site stormwater control will be made to the stormwater management fund in an amount equal to the estimated cost of providing on-site stormwater control.

(Code 1982, § 9-21; Ord. No. 2541, § 2, 7-22-1996; Ord. No. 2574, § 1, 6-30-1997; [Ord. No. 3399, § 9, 7-9-2018](#).)

ANALYSIS

A detention facility is required for the proposed project to be in compliance with the City drainage standards regarding peak discharges. The applicant's engineer has determined that the combined increase in peak discharges from the four proposed structures will have a negligible impact on the downstream drainage facilities.

The accompanying Drainage Report indicates a total increase of less than 1 cfs for all return intervals up to and including the 100-year storm event. As stated on page 4 of the report, the drainage study found that E. Thomas Street, the immediate receiving conduit, is capable of handling approximately 67 cfs, while the 100-year storm for this drainage area currently

produces approximately 32 cfs. According to these calculations, an increase of less than 1 cfs is negligible and E. Thomas Avenue is capable of adequately handling the increased flow. Likewise, the unnamed tributary to Boomer Creek typically carries 137 cfs during a 2-year event, and 755 cfs during the 100-year event (USGS Streamstats). The drainage report again concludes that it is unlikely that an increase of less than 1cfs will have any impact.

The applicant states that the implementation of this particular drainage standard will hinder the ability to fully utilize the narrow lots.

Section 35-57(d) of the City of Stillwater code of ordinances provides the following provisions for granting drainage standards variances:

(d)The board of drainage appeals may grant in a particular instance such an appeal from a ruling of the development services director or a variance from the terms of this chapter or the city drainage standards as will not cause detriment to the public good, safety, or welfare, or be contrary to the spirit, purpose and intent of this chapter where, by reason of any unique and exceptional physical circumstance or condition of a particular property, the literal enforcement of the city drainage standards or the requirements of this chapter will result in an unreasonable hardship. The board may prescribe additional conditions and safeguards in conformity with this chapter. Violation of such conditions and safeguards, when made a part of the terms under which the variance or appeal is granted, shall be deemed a violation of this chapter and punishable as provided in section 35-23.

FINDINGS

1. The property has size and dimension constraints that result in limited options for detention facilities.
2. Granting of the variance will not cause detriment to the public good, safety, or welfare, or be contrary to the spirit, purpose and intent of this chapter of the City of Stillwater code of ordinance.
3. Denial of the variance may result in a hardship making development infeasible.

Staff recommends that the Board of Drainage Appeals accepts staff findings and make any additional findings, based on any testimony presented, in order to grant or deny the variances.

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| Prepared by: | Zack Henson, CPSWQ, CFM, Floodplain Administrator |
| Reviewed by: | Monty Karns, PE, Director of Engineering |
| Date of Preparation: | June 8, 2021 |
| Attachments: | Variance Application Drainage Report (Pages 1-17; Appendix B- Calculations & Appendix C – HEC-HMS Data are available upon request) |