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CASE 863-V-16

SUPPLEMENTAL MEMORANDUM #4
September 14, 2017

Petitioners: Scott Blakeney, Derek Wagner, and Tyler Wakefield

Request: Authorize the following Variance in the R-1 Single Family Residence Zoning District for an existing residence and existing garage and a proposed patio and a proposed detached shed and unauthorized earth fill, all located in an existing storm water drainage easement:

Part A. Authorize a variance from Section 4.2.2D. of the Champaign County Zoning Ordinance that no use shall be established, construction undertaken, nor fill placed in any recorded drainage or utility easement.

Part B. Authorize the following Variance from the Champaign County Storm Water Management and Erosion Control Ordinance:

- 1. Authorize a variance from Section 6.1 A. requiring that no fill shall be placed nor grade altered in such a manner to create a nuisance.**
- 2. Authorize a variance from Section 6.3 G. prohibiting the destruction or obstruction of the operation of a storm water drainage system or storm water storage area.**
- 3. Authorize a variance from Section 9.1 E. for a freeboard of 0 feet in lieu of a freeboard of one foot.**
- 4. Authorize a variance from Section 9.1 C.1. for a release rate for the 50-year precipitation event far in excess of the maximum otherwise allowed that would be no greater than the rate of discharge from a 5-year return period precipitation event and an assumed row crop agricultural land cover.**
- 5. Authorize a variance from Section 9.1 C.2. for a release rate for frequent storm events that exceeds the maximum otherwise allowed that would be no greater than the rate of discharge from 1-year, 2-year, and 5-year return period precipitation events and an assumed row crop agricultural land cover.**

Subject Property: Lot 100 in Rolling Hills Estates V Subdivision in Section 12, Township 20 North, Range 7 East of the Third Principal Meridian in Mahomet Township, and commonly known as the residence at 2312 Pheasant Ridge Road, Mahomet.

Site Area: 16,280 square feet (0.37 acre)

Time Schedule for Development: Existing and in use

Prepared by: Susan Burgstrom
Senior Planner

John Hall
Zoning Administrator

STATUS

Don Wauthier, Vice President of Berns, Clancy and Associates, and consulting engineer for the P&Z Department, reviewed the revised analysis submitted by Phoenix Consulting Engineers received August 31, 2017. Mr. Wauthier noted that the proposed improvements to the Rolling Hills V Subdivision drainage basin met some, but not all, of the 1993 as-built basin conditions. P&Z Staff received a markup of the drainage basin from Mr. Wauthier on September 7, 2017, in which he suggested that the markup could be used as the solution that would return the basin to 1993 as-built conditions. He said it would save the process time if all parties agreed to the markup solution rather than doing more calculations and revising previous efforts.

Mike Nickrent, Engineer with Phoenix Consulting Engineers, created a more formal plan based on Mr. Wauthier's markup; P&Z Staff received this on September 13, 2017. In an email received September 14, 2017, Mr. Nickrent stated that Mr. Blakeney is going to discuss the improvements with the affected neighbors in the basin and is ready to get started on the work as soon as possible.

MARKUP CHANGES

Mr. Wauthier's markup solution includes the following changes from the Phoenix Complete Detention Basin Regrade received September 1, 2017, as listed under Items 5.D. and 11.M.(3) of the Revised Summary of Evidence dated September 14, 2017:

- (3) Mr. Wauthier's markup solution includes the following changes from the Phoenix Complete Detention Basin Regrade received September 1, 2017:
 - a. Install one gabion mattress, 3 feet by 9 feet, installed just south of Lot 100.
 - (a) After discussion between Mr. Overmyer of Phoenix Consulting Engineers and John Hall, Mr. Wauthier agreed that the gabion mattress should be able to be installed on Mr. Blakeney's property instead of involving another property owner. Mr. Wauthier said that an existing pipe would need to be cut short, which should not be difficult to do.
 - b. A one foot deep surface drainage swale where landscaping is indicated near west property line on Lot 99 and Lot 100.
 - c. Increase height of east berm to 727.8 feet instead of 727.5 feet on Lots 89 and 100.
 - d. Add a flared end section to the storm sewer along the west property line and at the 15-inch storm sewer in detention basin.
 - e. A somewhat deeper basin with an outlet depth that has been lowered by six inches.
 - f. Use a 2.0% slope instead of a 1.5% slope in the detention basin.
 - g. The basin outlet is 45 linear feet of 15-inch storm sewer at 1% slope rather than a 2.2% slope.

Mike Nickrent, Engineer with Phoenix Consulting Engineers, revised the Complete Detention Basin Regrade based on Mr. Wauthier's markup; P&Z Staff received this on September 13, 2017. P&Z Staff believe that the markup solution will have the effect of basic compliance with the *SWMEC Ordinance*.

WORK NECESSARY ON NEIGHBORING LOTS

Both the Phoenix Complete Detention Basin Upgrade received August 31, 2017, and Mr. Wauthier's markup solution require changes on 3 properties in addition to the Blakeney property: Lots 89, 99 and 101. Co-petitioner Derek Wagner owns Lot 89 (2411 Robin Road); P&Z Staff assume that because he is a co-petitioner, he will not take issue with making the necessary improvements on his property. Alan Williams owns Lot 99 (2310 E Pheasant Ridge Road); Mr. Williams expressed support for Mr. Blakeney's current conditions in a letter dated April 7, 2017 and distributed as part of the Preliminary Memorandum. It is unknown at this time if he would approve of additional changes.

The owner of Lot 101 has not been involved in the case and it is unknown whether that owner will allow this change to be made. If not, the basin outlet will have to be revised to allow the gabion mattress to fit onto the Blakeney property.

In an email received September 14, 2017, Mr. Nickrent stated that Mr. Blakeney is going to discuss the improvements with the affected neighbors in the basin and is ready to get started on the work as soon as possible.

PROPOSED SPECIAL CONDITIONS

P&Z Staff proposes the following special conditions. Condition B has been revised, and conditions C through E are new as of this memo:

- A. **Upon written request of any utility with an interest in using the utility and drainage easements, the owner shall be responsible for the full cost of removing any structure, and/or fill, and refusing to remove the structure and fill shall be considered a violation of the Zoning Ordinance.**

The special condition stated above is required to ensure the following:

That utility companies have appropriate access to their easements.

- B. An Erosion and Sedimentation Control Plan shall be submitted to and approved by the Zoning Administrator prior to any regrading or further disturbance of the soil in the drainage easement and all approved erosion and sedimentation controls shall be maintained in place on all disturbed land until final stabilization has occurred.**

The above special condition is necessary to ensure the following:

To minimize erosion and sedimentation on downstream properties.

- ~~B. The petitioner shall install erosion control measures until final stabilization is complete.~~

The special condition stated above is required to ensure the following:

~~**That neighboring properties will be protected from potential runoff until the petitioner has finalized construction on the subject property.**~~

- C. The Revised Complete Detention Basin Regrade received September 13, 2017, is the Official Site Plan for Case 863-V-16, which includes the following changes:**

- (1) Install one gabion mattress, 3 feet by 9 feet, installed just south of Lot 100.
- (2) A one foot deep surface drainage swale where landscaping is indicated near west property line on Lot 99 and Lot 100.
- (3) Increase height of east berm to 727.8 feet instead of 727.5 feet on Lots 89 and 100.
- (4) Add a flared end section to the storm sewer along the west property line and at the 15-inch storm sewer in detention basin.
- (5) A somewhat deeper basin with an outlet depth that has been lowered by six inches.
- (6) Use a 2.0% slope instead of a 1.5% slope in the detention basin.
- (7) The basin outlet is 45 linear feet of 15-inch storm sewer at 1% slope rather than a 2.2% slope.

The above special condition is necessary to ensure the following:

That it is clear which version of the Site Plan submitted by the petitioner is the approved Site Plan.

- D. A Zoning Compliance Certificate shall be approved within 12 months of approval of this variance. Prior to the issuance of the Zoning Compliance Certificate, the petitioner shall provide the Zoning Administrator with a copy of the as-built drawings of the detention basin including a written certification of the required storage volume, which are certified by an Illinois Professional Engineer, and the Zoning Administrator shall verify the as-built drawings are in substantial compliance with the approved site plan before approving the Zoning Compliance Certificate.**

The above special condition is necessary to ensure the following:

To ensure that the constructed facility is substantially the same as the approved Site Plan for Case 863-V-16.

- E. The approved site plan in this variance case shall become the approved site plan for Zoning Use Permit #82-16-01.**

The above special condition is necessary to ensure the following:

To ensure proper permitting and compliance of all authorized construction.

ATTACHMENTS

- A Markup from Don Wauthier at Berns, Clancy & Associates received September 7, 2017
- B Email from Mike Nickrent at Phoenix Consulting Engineers received September 13, 2017, with attachment: Revised Complete Detention Basin Regrade
- C Email from Mike Nickrent received September 14, 2017
- D Revised Summary of Evidence, Finding of Fact, and Final Determination dated September 14, 2017

Susan Burgstrom

From: Michael Nickrent <mnickrent@phoenix-ce.com>
Sent: Thursday, September 14, 2017 9:32 AM
To: Susan Burgstrom
Subject: Re: FW: Blakeney drainage review from BCA

Susan,

Just to let you know, we just met with Mr. Blakeney, he likes the plan and is willing to do the improvements. He is going to discuss the improvements with the affected neighbors in the basin and is reading to get started on the work as soon as possible. He will be there tonight and hopefully the board will accept the plan.

Thanks,
Michael

Michael Nickrent, PE
Phoenix Consulting Engineers, Ltd
421 E. Main St.
Mahomet, IL 61853
(217) 586-1803, ext 3
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CHAMPAIGN CO. P & Z DEPARTMENT

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863-V-16

**SUMMARY OF EVIDENCE, FINDING OF FACT
AND FINAL DETERMINATION
of
Champaign County Zoning Board of Appeals**

Final Determination: ***{GRANTED/ GRANTED WITH SPECIAL CONDITIONS/ DENIED}***

Date: ***{April 27, 2017}***

Petitioner: Scott Blakeney, Derek Wagner, and Tyler Wakefield

Request: Authorize the following Variance in the R-1 Single Family Residence Zoning District for an existing residence and existing garage and a proposed patio and a proposed detached shed and unauthorized earth fill, all located in an existing storm water drainage easement:

Part A. Authorize a variance from Section 4.2.2D. of the Champaign County Zoning Ordinance that no use shall be established, construction undertaken, nor fill placed in any recorded drainage or utility easement.

Part B. Authorize the following Variance from the Champaign County *Storm Water Management and Erosion Control Ordinance*:

1. Authorize a variance from Section 6.1 A. requiring that no fill shall be placed nor grade altered in such a manner to create a nuisance.
 2. Authorize a variance from Section 6.3 G. prohibiting the destruction or obstruction of the operation of a storm water drainage system or storm water storage area.
 3. Authorize a variance from Section 9.1 E. for a freeboard of 0 feet in lieu of a freeboard of one foot.
 4. Authorize a variance from Section 9.1 C.1. for a release rate for the 50-year precipitation event far in excess of the maximum otherwise allowed that would be no greater than the rate of discharge from a 5-year return period precipitation event and an assumed row crop agricultural land cover.
 5. Authorize a variance from Section 9.1 C.2. for a release rate for frequent storm events that exceeds the maximum otherwise allowed that would be no greater than the rate of discharge from 1-year, 2-year, and 5-year return period precipitation events and an assumed row crop agricultural land cover.
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SUMMARY OF EVIDENCE

From the documents of record and the testimony and exhibits received at the public hearing conducted on **April 27, 2017**, the Zoning Board of Appeals of Champaign County finds that:

1. Petitioner Scott Blakeney, 2312 Pheasant Ridge Road, Mahomet, owns the subject property. Co-petitioner Derek Wagner owns 2411 Robin Road (Lot 89 of Rolling Hills Estates V), located directly north of the subject property. Co-petitioner Tyler Wakefield owns 2409 Robin Road (Lot 90 of Rolling Hills Estates V), west of Mr. Wagner's property.
2. The subject property is the 16,280 square feet Lot 100 in Rolling Hills Estates V Subdivision in Section 12, Township 20 North, Range 7 East of the Third Principal Meridian in Mahomet Township, and commonly known as the residence at 2312 Pheasant Ridge Road, Mahomet.
3. Regarding municipal extraterritorial jurisdiction and township planning jurisdiction:
 - A. The subject property is within the one and one-half mile extraterritorial jurisdiction (ETJ) of the Village of Mahomet, a municipality with zoning. Municipalities do not have protest rights on a variance and generally are not notified of such cases.
 - B. The subject property is located within Mahomet Township, which has a Plan Commission. Townships with Plan Commissions have protest rights on a variance and are notified of such cases.

GENERALLY REGARDING LAND USE AND ZONING IN THE IMMEDIATE VICINITY

4. Land use and zoning on the subject property and in the vicinity are as follows:
 - A. The subject property is a 16,280 square feet (0.37 acre) lot and is currently zoned R-1 Single Family Residence.
 - B. Properties to the north, south, and west are zoned R-1 Single Family Residence and are residential in use.
 - C. The property to the east is zoned AG-2 Agriculture and is residential in use.

GENERALLY REGARDING THE PROPOSED SITE PLAN

5. Regarding the site plan for the subject property:
 - A. The Petitioner's Site Plan, received November 14, 2016, indicates the following:
 - (1) Existing features on the subject property consist of the following:
 - a. One 27 feet by 44 feet residence with a covered patio on the west side;
 - (a) Construction of the home was authorized under ZUPA #82-16-01 on the same foundation as the house authorized in ZUPA 246-97-01.
 - (b) The new house has not received a Zoning Compliance Certificate due to the outstanding drainage and easement issues.
 - b. One 24 feet by 24 feet detached garage; authorized under ZUPA #246-97-01.

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- c. One detached garden shed;
 - (a) ZUPA #82-16-01 was originally approved for the new dwelling; later, the site plan was revised to add the smaller shed. There was no permit approved for the small shed and in fact, the small shed is not where it is supposed to be.
 - (b) The Site Plan received March 22, 2016, and approved on April 7, 2016, shows the location where the 13 feet by 22 feet shed should have been placed, directly behind the detached garage. The petitioner instead placed the shed northeast of the approved location, which is in a drainage easement. Staff sent petitioner a Notice of Violation for this issue on June 21, 2016.
 - (c) The petitioner revised the site plan so that the shed would be behind the garage, and initialed the change June 27, 2016. As of January 25, 2017, the shed is still in the wrong location.
 - d. A 13 feet by 24 feet concrete patio on the east side of the house;
 - (a) Construction of the patio did not require a Zoning Use Permit; however, it was constructed in the drainage/utility easement, which is not permitted by the Zoning Ordinance.
 - e. A drainage and utility easement varying in width from 40 feet to 70 feet.
- (2) There are no proposed improvements.
- B. The following are previous and current Zoning Use Permits for the subject property:
- (1) ZUPA# 246-97-01 was approved on September 3, 1997, for construction of a manufactured home and detached garage.
 - (2) ZUPA# 82-16-01 was approved on April 7, 2016, for placing a manufactured home and a detached storage shed.
 - a. The Zoning Department determined that earthen fill and drainage tiles were installed in order to place the house and shed constructed under Zoning Use Permit #82-16-01.
 - b. ZUPA #82-16-01 was originally approved for the new dwelling; later, the site plan was revised to add the smaller shed. There was no permit approved for the small shed and in fact, the small shed is not where it is supposed to be.
 - c. The house and shed have not received a Zoning Compliance Certificate due to the outstanding drainage and easement issues.
- C. There are no prior Zoning Cases for the subject property.

D. A revised Site Plan was received from Phoenix Consulting Engineers on September 13, 2017, which has numerous changes regarding the detention basin on Lots 89, 99, and 100.

- (1) Drainage analyses for the current detention basin and 1993 as-built basin were received from Phoenix Consulting Engineers on July 13, 2017 and August 31, 2017.
- (2) Berns, Clancy and Associates, the P&Z Department consulting engineer, reviewed these analyses and provided comments.
- (3) On September 7, 2017, P&Z Staff received a markup of the drainage basin from Don Wauthier, Vice President of Berns, Clancy and Associates, in which he suggested that the markup could be used as the solution that would return the basin to 1993 as-built conditions. He said it would save the process time if all parties agreed to the markup solution rather than doing more calculations and revising previous efforts.
- (4) On September 13, 2017, P&Z Staff received a revised Complete Detention Basin Regrade, which was based on Mr. Wauthier's markup, from Mike Nickrent, Engineer with Phoenix Consulting Engineers. P&Z Staff designated this as the Official Site Plan for approval by the ZBA. The Site Plan includes the following changes:
 - a. Install one gabion mattress, 3 feet by 9 feet, installed just south of Lot 100.
 - (a) After discussion between Mr. Overmyer of Phoenix Consulting Engineers and John Hall, Mr. Wauthier agreed that the gabion mattress should be able to be installed on Mr. Blakeney's property instead of involving another property owner. Mr. Wauthier said that an existing pipe would need to be cut short, which should not be difficult to do.
 - b. A one foot deep surface drainage swale where landscaping is indicated near west property line on Lot 99 and Lot 100.
 - c. Increase height of east berm to 727.8 feet instead of 727.5 feet on Lots 89 and 100.
 - d. Add a flared end section to the storm sewer along the west property line and at the 15-inch storm sewer in detention basin.
 - e. A somewhat deeper basin with an outlet depth that has been lowered by six inches.
 - f. Use a 2.0% slope instead of a 1.5% slope in the detention basin.
 - g. The basin outlet is 45 linear feet of 15-inch storm sewer at 1% slope rather than a 2.2% slope.

- E. The required variance is as follows: Authorize the following Variance in the R-1 Single Family Residence Zoning District for an existing residence and existing garage and a proposed patio and a proposed detached shed and unauthorized earth fill, all located in an existing storm water drainage easement:

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- (1) Part A. Authorize a variance from Section 4.2.2 D. of the Champaign County Zoning Ordinance that no use shall be established, construction undertaken, nor fill placed in any recorded drainage or utility easement.
- (2) Part B. Authorize the following Variance from the Champaign County Storm Water Management and Erosion Control Ordinance:
 - a. Authorize a variance from Section 6.1 A. requiring that no fill shall be placed nor grade altered in such a manner to create a nuisance.
 - b. Authorize a variance from Section 6.3 G. prohibiting the destruction or obstruction of the operation of a storm water drainage system or storm water storage area.
 - c. Authorize a variance from Section 9.1 E. for a freeboard of 0 feet in lieu of a freeboard of one foot.
 - d. Authorize a variance from Section 9.1 C.1. for a release rate for the 50-year precipitation event far in excess of the maximum otherwise allowed that would be no greater than the rate of discharge from a 5-year return period precipitation event and an assumed row crop agricultural land cover.
 - e. Authorize a variance from Section 9.1 C.2. for a release rate for frequent storm events that exceeds the maximum otherwise allowed that would be no greater than the rate of discharge from 1-year, 2-year, and 5-year return period precipitation events and an assumed row crop agricultural land cover.

GENERALLY REGARDING SPECIFIC ORDINANCE REQUIREMENTS AND ZONING PROCEDURES

6. Regarding authorization for the proposed variance:
 - A. The following definitions from the *Zoning Ordinance* are especially relevant to the requested Variance (capitalized words are defined in the Ordinance):
 - (1) “ACCESSORY BUILDING” is a BUILDING on the same LOT within the MAIN or PRINCIPAL STRUCTURE, or the main or principal USE, either detached from or attached to the MAIN or PRINCIPAL STRUCTURE, and subordinate to and used for purposes customarily incidental to the MAIN or PRINCIPAL STRUCTURE or the main or principal USE.
 - (2) “AREA, BUILDING” is the total area taken on a horizontal plane at the largest floor level of the MAIN or PRINCIPAL BUILDING and all ACCESSORY BUILDINGS on the same LOT exclusive of uncovered porches, terraces, steps, or awnings, marquees, and nonpermanent CANOPIES and planters.
 - (3) “BUILDING, DETACHED” is a BUILDING having no walls in common with other BUILDINGS.
 - (4) “DWELLING” is a BUILDING or MANUFACTURED HOME designated for non-transient residential living purposes and containing one or more DWELLING UNITS and/or LODGING UNITS.

- (5) “GRADE” is the average of the elevations of the surface of the ground measured at all corners of a BUILDING.
- (6) “LOT” is a designated parcel, tract or area of land established by PLAT, SUBDIVISION or as otherwise permitted by law, to be used, developed or built upon as a unit.
- (7) “LOT LINE, FRONT” is a line dividing a LOT from a STREET or easement of ACCESS. On a CORNER LOT or a LOT otherwise abutting more than one STREET or easement of ACCESS only one such LOT LINE shall be deemed the FRONT LOT LINE.
- (8) “LOT LINE, REAR” is any LOT LINE which is generally opposite and parallel to the FRONT LOT LINE or to a tangent to the midpoint of the FRONT LOT LINE. In the case of a triangular or gore shaped LOT or where the LOT comes to a point opposite the FRONT LOT LINE it shall mean a line within the LOT 10 feet long and parallel to and at the maximum distance from the FRONT LOT LINE or said tangent.
- (9) “MANUFACTURED HOME” is a factory assembled DWELLING UNIT designed and constructed to be transported in one or more parts by truck or by towing on wheels temporarily or permanently attached to its frame. This definition shall include mobile homes and modular homes or housing units and shall exclude MOTOR VEHICLES and TRAVEL TRAILERS.
- (10) “RIGHT-OF-WAY” is the entire dedicated tract or strip of land that is to be used by the public for circulation and service.
- (11) “SPECIAL CONDITION” is a condition for the establishment of a SPECIAL USE.
- (12) “USE” is the specific purpose for which land, a STRUCTURE or PREMISES, is designed, arranged, intended, or for which it is or may be occupied or maintained. The term “permitted USE” or its equivalent shall not be deemed to include any NONCONFORMING USE.
- (13) “VARIANCE” is a deviation from the regulations or standards adopted by this ordinance which the Hearing Officer or the Zoning BOARD of Appeals are permitted to grant.
- (14) “YARD” is an OPEN SPACE, other than a COURT, of uniform width or depth on the same LOT with a STRUCTURE, lying between the STRUCTURE and the nearest LOT LINE and which is unoccupied and unobstructed from the surface of the ground upward except as may be specifically provided by the regulations and standards herein.
- (15) “YARD, FRONT” is a YARD extending the full width of a LOT and situated between the FRONT LOT LINE and the nearest line of a PRINCIPAL STRUCTURE located on said LOT. Where a LOT is located such that its REAR

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and FRONT LOT LINES each about a STREET RIGHT-OF-WAY both such YARDS shall be classified as FRONT YARDS.

- (16) “YARD, REAR” is a YARD extending the full width of a LOT and situated between the REAR LOT LINE and the nearest line of a PRINCIPAL STRUCTURE located on said LOT.
 - (17) “YARD, SIDE” is a YARD situated between a side LOT LINE and the nearest line of a PRINCIPAL STRUCTURE located on said LOT and extending from the rear line of the required FRONT YARD to the front line of the required REAR YARD.
- B. The R-1, Single Family Residence DISTRICT is intended to provide areas for single FAMILY detached DWELLINGS, set on LOTS and is intended for application in mainly non-urban and developing areas where community facilities can be made readily available.
- C. Paragraph 9.1.9 D. of the *Zoning Ordinance* requires the ZBA to make the following findings for a variance:
- (1) That the requirements of Paragraph 9.1.9 C. have been met and justify granting the variance. Paragraph 9.1.9 C. of the *Zoning Ordinance* states that a variance from the terms of the *Champaign County Zoning Ordinance* shall not be granted by the Board or the hearing officer unless a written application for a variance is submitted demonstrating all of the following:
 - a. That special conditions and circumstances exist which are peculiar to the land or structure involved which are not applicable to other similarly situated land or structures elsewhere in the same district.
 - b. That practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied prevent reasonable and otherwise permitted use of the land or structures or construction on the lot.
 - c. That the special conditions, circumstances, hardships, or practical difficulties do not result from actions of the Applicant.
 - d. That the granting of the variance is in harmony with the general purpose and intent of the *Ordinance*.
 - e. That the granting of the variance will not be injurious to the neighborhood, or otherwise detrimental to the public health, safety, or welfare.
 - (2) That the variance is the minimum variation that will make possible the reasonable use of the land or structure, as required by subparagraph 9.1.9 D.2.
- D. Regarding Part A of the proposed variance, Section 4.2.2.D states that no USE shall be established, CONSTRUCTION undertaken, nor fill placed in any recorded drainage or utility easement that would interfere with the function of the easement.
- E. Regarding Part B of the proposed variance, for a set of variances from the Champaign County *Storm Water Management and Erosion Control Ordinance*:

- (1) Section 6.1 A. states: “No fill shall be placed nor grade altered such that it will cause surface water upstream of the development to pond or direct surface flows in such a way as to create a nuisance.”
- (2) Section 6.3 G. states: “It shall be unlawful for any person to cause the destruction or obstruction, by act or omission, of the operation of the following, when the following are indicated on the approved engineering drawings for any recorded subdivision plat or other approved site plan, other than by means of a duly approved STORM WATER DRAINAGE PLAN: 1) any STORM WATER DRAINAGE SYSTEM or feature that drains an area of more than five acres; or 2) any STORM WATER STORAGE AREA.”
- (3) Section 9.1 E. states: “The entire STORM WATER STORAGE AREA facility shall be designed and constructed to fully protect the public health, safety, and welfare. The minimum building SITE elevation adjacent to wet or dry basins shall be set at a minimum of 1 foot above the maximum created head. The maximum created head will include the energy head at the emergency overflow structure.”
- (4) Section 9.1 C.1 states: “Release Rate for Design Event - Outlet structure maximum release rate for the 50-year precipitation event shall be equal to the rate of discharge from the DEVELOPMENT area assuming row crop agricultural land cover and a 5-year RETURN PERIOD precipitation event. See Section 9.1 A for the required assumptions for the row crop agricultural conditions.”
- (5) Section 9.1 C.2 states: “Effective Discharge for Frequent Storm Events - The outlet structure maximum discharge for each of the 1-year, 2-year and 5- year precipitation events shall be no greater than the rate of discharge from the DEVELOPMENT area, assuming row crop agricultural land cover with the required assumptions described in Section 9.1 A.”

GENERALLY REGARDING SPECIAL CONDITIONS THAT MAY BE PRESENT

7. Generally regarding the Zoning Ordinance requirement of a finding that special conditions and circumstances exist which are peculiar to the land or structure involved which are not applicable to other similarly situated land or structures elsewhere in the same district:
 - A. The Petitioner has testified on the application, “**Lot 100 is an average sized irregular shaped residential lot at a cul-de-sac with around 16,000 square feet and only 24% (3,900 square feet) of the lot is developable after factoring the platted drainage and utility easement and the platted front yard building setback. Peculiar to the structure (house): The house frame was built upon a foundation that was existing for the previous house.**”
 - B. The Plat of Subdivision for Rolling Hills Estates V, recorded August 13, 1993, shows drainage and utility easements throughout the property such that approximately 4,730 square feet of the 16,280 lot area is the only area outside an easement.
 - C. On March 2, 1995, Sangamon Valley Public Water District recorded a 15 feet wide sanitary sewer easement in the southern part of the subject property extending approximately to the

middle of the property, which includes area within the 4,730 square feet of non-easement area from the original Plat of Survey.

- D. On December 3, 1993, Illinois Power Company recorded a 20 feet wide electric and gas easement in the western part of the subject property; this is within the area identified as easement in the original Plat of Survey.
- E. Special conditions of approval of Rolling Hills Estates V Subdivision, approved by the County Board on July 27, 1993, state the following:
- (1) That the storm water control basin outlet be designed with a maximum capacity equal to the 5-year agricultural runoff calculated as specified in the Interim Storm Water Management Policy and approved by the Subdivision Officer.
 - (2) That the storm water control basin located on Lots 89, 90, 99 and 100 be constructed before work is begun on other improvements.
 - a. Lots 89 and 90 belong to co-petitioners Mr. Wagner and Mr. Wakefield, respectively; Lot 99 belongs to Mr. Alan Williams; and Lot 100 belongs to Mr. Blakeney.
 - (3) That the subdivision covenants be revised to provide for ongoing protection and maintenance of the storm water control basin substantially in accord with the language distributed to the Committee as subsequently amended.
- F. The following statements from the Rolling Hills Estates V Subdivision Covenants are relevant to this case:
- (1) The lots in said subdivision are subject to permanent easements as shown on said plat, identified thereon by certain lines of uneven length dashes which are "minimum building setback lines" the same being 25 feet from the front or side of such lots.
 - (2) Certain of the lots in said subdivision are further subject to a permanent easement of 10 feet of even width across the rear or the side of such lots, the location of same being reflected by lines of even length dashes, and said easement is reserved for the installation and maintenance of gas, electric power lines, telephone, cable television, water lines, sewers, drains and surface drainage as and when the same are needed or installed or considered to be installed by the respective owners of said lots and said easements are permanent in nature and no permanent structure shall be placed upon any of such areas so reserved for such easement purposes either before or after the installation of such utility lines or other equipment and material.
 - (3) Said lots shall be subject to all easements as shown on the plat above mentioned, and that all of said lots shall be subject to the following covenants and restrictions, except as may be hereinafter indicated, to-wit:
 - a. All existing field tiles that may be encountered by owner or owner's contractors in the course of constructing a residence on any of the subject lots or in the course of any construction thereon shall be rerouted and maintained in service by such owner, at his or their cost, such rerouting to be so effected so as to provide for the continuation of such field drainage system (p9, #24).

- b. The drainage swales on Lots 88, 89, 100 and 101 in said subdivision shall remain and shall be kept open and unobstructed (p9, #25).
 - c. A stormwater control basin exists on parts of Lots 89, 90, 99 and 100 and is subject to periodic inundation following rainstorms. This basin shall be maintained by the Architectural Control Committee on behalf of all lot owners served by the stormwater control basin and shall not be filled, built upon or otherwise modified in any way that would reduce its storage volume or impair the flow of water into the basin or alter the flow of water out of the basin. Any impairment of the basin's storage volume or flows into the basin or change in flows out of the basin shall be remedied within 14 days of the receipt of notice from the Architectural Control Committee. Upon failure to remedy the impairment of the basin within a reasonable time acceptable to the Architectural Control Committee, it or its agents or employees may enter onto Lots 89, 90, 99 or 100 and take such action as it deems necessary to remedy any impairment of the basin's functions. To the extent any lot owner is responsible for such impairment, the Architectural Control Committee may assess and the owner shall pay any costs incurred in remedying the impairment of the basin.
- G. ZUPA# 246-97-01 was approved on September 3, 1997, for construction of a manufactured home and detached garage.
- H. Minimum lot standards for a lot in the R-1 District include:
- (1) A minimum lot area of 9,000 SF;
 - (2) A minimum average lot width of 80 feet;
 - (3) A minimum front yard of 25 feet;
 - (4) A minimum side yard of 10 feet, but for irregular lots such as the subject property, the average SIDE YARD width may be considered the required minimum width, provided that the SIDE YARD at any point shall not be narrower than five feet nor less than one-half the minimum width as required by this Section 5.3, whichever is greater.
 - (5) A minimum rear yard of 20 feet, but for irregular lots such as the subject property, the minimum depth of a REAR YARD shall not be less than the required minimum SIDE YARD, as required by this Section 5.3; and in the aggregate, the square footage of the REAR YARD must equal that required for a rectangular LOT of minimum zoning DISTRICT dimensions.
 - (6) These standards result in a minimum net buildable area of 4,050 square feet, which is only about 3.8% larger than the claimed net actual building area of 3,900 square feet on the subject property.
- I. Mr. Wagner and Mr. Wakefield indicated their support for Mr. Blakeney's variance petition by agreeing to become co-petitioners on the application.

- J. Mr. Williams indicated his support for the improvements to his property and Mr. Blakeney's property in a notarized document received April 7, 2017.
- K. In their review of the proposed drainage easement fill that was documented in a letter dated February 3, 2017, Berns, Clancy and Associates stated that the evidence indicated that the Rolling Hills Estates V detention basin on Lot 100 had been partially filled between 1993 and 2008. The following items are particularly relevant to the proposed variance:
- (1) Item #5 in the BCA letter dated February 3, 2017, includes the following: the Phoenix analyses indicate a storage capacity of 0.31 acre-feet at a water surface elevation of 726.5±. However, the 1993 "As-Built" information indicates a storage capacity of 0.4 acre feet at water surface elevation 726.0±. It is evident from the current information provided that the basin was partially filled between 1993 and 2008.
 - (2) Item #9 in the BCA letter dated February 3, 2017 includes the following: the original design for the amount of water that needed to be stored during a 50 year storm event was 0.40 acre-feet±. The calculations titled "Current Basin-50 Year Event" depict that after the fill was placed, a storage volume of approximately 0.10± acre-feet remained.

GENERALLY REGARDING ANY PRACTICAL DIFFICULTIES OR HARDSHIPS RELATED TO CARRYING OUT THE STRICT LETTER OF THE ORDINANCE

8. Generally regarding the Zoning Ordinance requirement of a finding that practical difficulties or hardships related to carrying out the strict letter of the regulations sought to be varied prevent reasonable and otherwise permitted use of the land or structures or construction on the lot:
- A. The Petitioner has testified on the application, **"Once a moderately sized home is constructed upon the buildable area of the lot, it becomes very difficult to enjoy the property to its full extent due to the placement of a drainage basin and the slopes associated with the drainage basin at the rear of the lot."**
 - B. Regarding Part A of the proposed variance, for allowing construction or a use to occupy part of a drainage and utility easement in lieu of the requirement that no use shall be established, construction undertaken, nor fill placed in any recorded drainage or utility easement: without the proposed variance, part of the house, shed, and earth fill would have to be removed.
 - C. Regarding Part B of the proposed variance, for authorizing a variance from the Champaign County *Storm Water Management and Erosion Control Ordinance*: without the proposed variance and related stormwater drainage plan review required as part of the zoning case, there is no guarantee that the required drainage and water resources constructed as part of the subdivision are protected and functioning properly.

GENERALLY PERTAINING TO WHETHER OR NOT THE PRACTICAL DIFFICULTIES OR HARDSHIPS RESULT FROM THE ACTIONS OF THE APPLICANT

9. Generally regarding the Zoning Ordinance requirement for a finding that the special conditions, circumstances, hardships, or practical difficulties do not result from the actions of the Applicant:
- A. The Petitioner has testified on the application, **"The hardships of the property are a result of the design of the lot/subdivision."**

- B. On June 10, 2016, the Zoning Department sent Mr. Blakeney a First Notice of Violation for the destruction or obstruction, by act or omission, of the operation of any drainage structure or feature that drains an area of more than five acres, in violation of the Nuisance Ordinance.
- (1) On May 5, 2016 John Hall, the Zoning Administrator and Jamie Hitt, the Zoning Officer inspected the property with Scott Blakeney and his excavation contractor. At that inspection, it was noted that drain tiles had been installed in the back and side yards and about 3 to 4 feet of earthen fill (dirt) had been spread over the front, back, and side yards of the subject property.
 - (2) John Hall informed Scott Blakeney that his lot was the drainage area/detention basin for the subdivision and that the earthen fill (dirt) must be removed from the back and side yards and the grade of the lot must either be returned to the elevation that was indicated on the approved subdivision plat in 1993 or John Hall agreed that it could be returned to the grade that existed prior to Scott Blakeney's purchase of the lot.
 - (3) On May 17, 2016, Scott Blakeney called and scheduled an inspection to confirm that the earthen fill (dirt) had been removed and the property had been brought into compliance.
 - (4) On May 18, 2016, John Hall and Jamie Hitt met Scott Blakeney and his excavation contractor at the subject property and it was noted that some of the drain tile at the northeast corner of the subject property had been removed and some of the earthen fill (dirt) had been removed in that same area. However, the earthen fill (dirt) remained in most all other locations. John Hall explained to Scott Blakeney that he expected the earthen fill (dirt) areas to be reduced to at least the grade that had existed before the earthen fill (dirt) was placed on the property.
 - (5) Mr. Blakeney and the excavation contractor asked John Hall how the earthen fill could remain on the property and John Hall explained the only way the earthen fill could remain on the property would be to hire an Illinois Licensed Professional Engineer to provide the necessary certification that the earthen fill would allow the natural flow of water to maintain its course and to provide the required compensatory storage/detention of water as approved in the original subdivision plat.
 - (6) On June 8, 2016, Eric Hewitt, of Phoenix Consulting Engineers, Ltd, contacted John Hall by email to inform him that Scott Blakeney had hired him to perform a study of the detention area that he has filled. Eric Hewitt indicated that he would survey the property and analyze the basin and that he would provide an update after his analysis was complete.
- C. On June 21, 2016, the Zoning Department sent Mr. Blakeney a First Notice of Violation for construction without an approved Zoning Use Permit, in violation of the Zoning Ordinance.
- (1) In early May 2016, a complaint was received which alleged that earthen fill was being brought to the subject property, and then dumped and spread in the yard. It also alleged that drain tiles had been installed on the subject property such that the natural drainage of the Rolling Hills Estates Subdivision and the Charter Oaks

Subdivision had been disturbed and/or changed from the plans that were approved for the development of the subdivisions.

- (2) The Notice also stated that Mr. Blakeney was notified by Zoning Officer Jamie Hitt on June 20, 2016, that the shed would not be authorized until the existing Violation was resolved; Mr. Blakeney told her that the shed was already on the property but not permanently affixed.
- D. On October 5, 2016, Mr. Eric Hewitt of Phoenix Consulting Engineers, Ltd, sent the Zoning Department a copy of a memorandum dated September 26, 2016, regarding the engineering analysis on the earthen fill and drainage.
- (1) On October 12, 2016, John Hall responded via email to Eric Hewitt that Mr. Blakeney would either need to replat with the Village of Mahomet or apply for and receive a Variance from the Champaign County Zoning Board of Appeals. He stated that if Mr. Blakeney decides to apply for a Variance, Mr. Hall would seek a consulting engineer review of the information Mr. Hewitt provided on October 5, 2016.
 - (2) On October 17, 2016, Mr. Hall sent a letter to Mr. Blakeney detailing his options for a replat with the Village or a Variance with the County. He required a response by October 31, 2016.
 - (3) In an email received October 26, 2016, Eric Hewitt stated that Mr. Blakeney decided to seek a replat with the Village of Mahomet.
 - (4) In an email received October 27, 2016, Kelly Pfeifer from the Village of Mahomet stated that a Variance through the County would be the best way to proceed.
 - (5) On November 14, 2016, the Zoning Department received an application for a Variance from Eric Hewitt on behalf of Mr. Blakeney. The application packet also included a Storm Water Management memorandum and hydraulic data for review.
- E. The Zoning Department contracted with Berns, Clancy and Associates to complete an independent review of stormwater drainage for the subject property. They reviewed the engineering analysis prepared by Phoenix Consulting dated September 26, 2016, and offered the following observations in a memorandum received February 6, 2017, summarized by staff below and provided as a Document of Record:
- (1) BCA recommends a 12 inch swale instead of a 6 inch deep swale in combination with the 12 inch HDPE pipe from the cul-de-sac.
 - (2) The high water elevations have been changed by the fill that was placed within the basin. The basin was originally designed with 0.65 acre-feet \pm storm water storage volume available, in excess of the volume of storm water that needed to be stored of approximately 0.40 acre-feet.
 - (3) The basin emergency overflow spillway is discharging during the 50 year storm event, and the actual freeboard is 0.00 feet.
 - (4) Table 4: Spillway Summary lists flow rates that are leaving the basin through the emergency spillway. The original 1993 design did not allow for any flow over the

emergency spillway during a 50 year storm event. Table 4 shows a flow of 17.6 cfs over the emergency spillway during a 50 year storm event for the 2008 conditions.

- (5) It is evident from the current information provided that the basin was partially filled between 1993 and 2008.
 - (6) The Phoenix analysis indicates that the peak discharge from the basin had a total peak flow rate of 22.6 cfs, well beyond the maximum allowable release of 5 cfs during a 50 year storm event. This is another indication that the basin volume was partially filled between 1993 and 2008.
 - (7) The flows leaving the basin through the spillway are increased as a result of the proposed work.
 - (8) The proposed flow rate from the basin outlet pipe (see Table 2: Basin Outlet Summary) is much above the maximum allowable release rate of 5 cfs for a 50 year storm event.
 - (9) The calculations titled “Current Basin – 50 year Event” depict that after the fill was placed, a storage volume of approximately $0.10 \pm$ acre feet remained of the original design of $0.40 \pm$ acre feet. The drainage characteristics of the surrounding land have not changed significantly since 1993; therefore, 0.40 acre-feet of storage is still required.
 - (10) In BCA’s opinion, the current basin as modified from the 2008 conditions apparently does not meet the requirements of the current Champaign County Stormwater Management regulations. It also apparently does not meet the requirements of the 1993 county regulations.
- F. In an email dated March 2, 2017, staff sent a copy of BCA’s stormwater review to Eric Hewitt along with a summary of John Hall’s concerns and potential solutions:
- (1) Mr. Hall said that the ZBA will likely want to see water levels no higher than they were in 2008 and that discharge be at a non-erosive velocity. He believes the ZBA will also focus on the depth of storm water ponding on the two adjacent properties to the north.
 - (2) Mr. Hall provided the following options that might mitigate these concerns:
 - a. Add another Variance to the existing Variance case for exemption from the SWMEC Ordinance;
 - b. Encourage any neighbor affected by the drainage to be a co-petitioner in the existing variance, so that they will be included in all discussion, approvals, and potential special conditions.
 - c. Remove enough fill so that drainage conditions will be compliant with the SWMEC Ordinance.
- G. In response, Eric Hewitt coordinated discussions with Mr. Blakeney, his attorney, and neighbors. The following resulted from those discussions:
- (1) On March 21, 2017, Mr. Hewitt submitted an amended Application for Variance, unchanged from the November 14, 2016 submittal, with the addition of Mr. Wagner’s and Mr. Wakefield’s signatures as co-petitioners.

- (2) Staff added Part B to the variance in case the petitioner decides not to remove sufficient earthen fill from the property.
 - (3) Mr. Hewitt told staff they were working with Mr. Blakeney on getting a letter of support from their neighbor to the west.
- H. The current dwelling was placed on the foundation of the previous dwelling that was constructed by the first owner. The existing garage was also constructed by the previous owner.
 - I. In their review of the proposed drainage easement fill that was documented in a letter of February 3, 2017, Berns, Clancy and Associates stated that the evidence indicated that the Rolling Hills Estates V detention basin on Lot 100 had been partially filled between 1993 and 2008.
 - J. Owner Scott Blakeney did not acquire Lot 100 until December 2015.

GENERALLY PERTAINING TO WHETHER OR NOT THE VARIANCE IS IN HARMONY WITH THE GENERAL PURPOSE AND INTENT OF THE ORDINANCE

- 10. Generally regarding the Zoning Ordinance requirement for a finding that the granting of the variance is in harmony with the general purpose and intent of the Ordinance:
 - A. The Petitioner has testified on the application, **“Provisions have conscientiously been made prior to placement of the fill upon the lot by the new owner who was unaware he was placing fill within an easement.”**
 - B. Regarding Part A of the proposed variance:
 - (1) Section 2.0(d) of the Zoning Ordinance states that one Purpose of the Ordinance is lessening and avoiding hazards to persons and damage to PROPERTY resulting from the accumulation of runoff of storm or flood waters.
 - (2) The prohibition on construction in drainage easements and utility easements in paragraph 4.2.2 D. was added to the Zoning Ordinance in Ordinance No. 544 (Case 105-AT-97 Part D) that was adopted on November 18, 1997. The evidence, testimony, and Finding of Fact for Case 105-AT-97 Part D merely discussed that the amendment gave the Zoning Administrator the authority to prevent construction in these areas where construction is not supposed to occur.
 - (3) Based on the review by Berns, Clancy and Associates and documented in their letter of February 3, 2017, the requested variance is essentially a 75% variance due to the amount of the required storm water detention volume that has been filled.
 - (4) Hazards to persons and damage to property that may be caused by storm water runoff include the following:
 - a. Hazards to persons and damage to property upstream of the subject property that may result from the accumulation (i.e., ponding) of storm water due to blocked drainage.

- b. Hazards to persons and damage to property downstream of the subject property that may result from the inadequate control of storm water that may result in the release of storm water in quantities and/or velocities large enough to cause damage to property (typically erosion or actual flooding) and/or pose a safety hazard to persons.
- (5) Regarding hazards to persons and damage to upstream property, Lots 89, 90, and 99 of Rolling Hills Estates V Subdivision border the subject property on the north and west and the owners of these lots are either co-petitioners or have submitted statements of no objection, as summarized below:
- a. Co-petitioners Derek Wagner (owner of Lot 89) and Tyler Wakefield (owner of Lot 90) own upstream property and are apparently accepting of any hazard or damage to their property that may result from the proposed variance.
 - b. Neighbor Alan J. Williams owns Lot 99 and has submitted a notarized statement regarding the proposed variance in which he accepts the improvements constructed on his property and states that he has no objections with the modifications made by Mr. Blakeney.
 - c. No other upstream properties border the subject property.
- (6) Regarding hazards to persons and damage to downstream property, the adjacent properties downstream of the subject property are the following:
- a. Lot 101 of Rolling Hills Estates V Subdivision borders the subject property on the south and receives the storm water released from the basin outlet and contains the drainage way for that outlet. The release rate through the basin outlet for more frequent storms (i.e. storm with a return frequency of 1 to 5 years) is indeterminate because no release rates have been provided. However, the release rate through the basin outlet for the 5-year storm and storms greater than the 5-year storm appear to meet the requirements.
 - b. Lot 4 of Ridge Creek Subdivision borders the subject property on the east and receives storm water released through the emergency spillway. The flows through the emergency overflow are much greater than allowed by the ordinance.
- C. Regarding Part B of the proposed variance:
- (1) The Champaign County *Storm Water Management and Erosion Control Ordinance* lists several purposes that are relevant to the proposed variance:
- a. Purpose 2.B is to “provide for adequate drainage of development sites and surrounding areas.”
 - b. Purpose 2.C is to “guide developers’ and builders’ attempts to control the movement of storm water and reduce damage to property.”
 - c. Purpose 2.F is to “safeguard persons and protect property from the hazards and negative impacts of soil erosion created by land disturbance.”

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- d. Purpose 2.G is to “prevent flooding caused by silt clogging storm water management infrastructure, such as storm sewers, inlets and receiving channels or streams.”
 - e. Purpose 2.H is to control the rate of release of storm water and require temporary storage of storm water from development sites.”
- (2) Based on the review by Berns, Clancy and Associates and documented in their letter of February 3, 2017, the requested variance is as follows:
- a. The variance in Parts B.1. and B.2. are roughly equivalent with the amount of variances for Part A which is essentially a negative 75% variance due to the amount of the required storm water detention volume that has been filled.
 - b. Part B.4. is a variance of 372%, based on the proposed total flow (release) rate of 23.6 cubic feet per second from both the detention basin outlet and the emergency spillway during a 50-year storm as compared to the release rate authorized by Section 9.1C.1 which for the subject property is 5.0 cubic feet per second during a 50-year storm.
 - c. The amount of variance for Part B.5. is undetermined because the petitioner has not identified flow rates from storm events more frequent than the 50-year storm.
 - d. The amount of variance for Part B.3 is undetermined because the petitioner has not identified the maximum created head at the emergency overflow. Section 9.1.E. requires a minimum building site elevation adjacent to a basin to be a minimum of 1 foot above the maximum created head at the emergency overflow. As depicted on the Site Plan submitted by Phoenix Consulting Engineers, Ltd. on November 14, 2016, the building site on the subject property is above elevation 729.0 feet and the maximum created head is 726.57 feet, for a difference of 2.43 feet. The difference is even greater for other structures upstream of the basin.

GENERALLY PERTAINING TO THE EFFECTS OF THE REQUESTED VARIANCE ON THE NEIGHBORHOOD AND THE PUBLIC HEALTH, SAFETY, AND WELFARE

11. Generally regarding the Zoning Ordinance requirement for a finding that the granting of the variance will not be injurious to the neighborhood, or otherwise detrimental to the public health, safety, or welfare:
- A. The Petitioner has testified on the application: **“An engineering review of placement of the fill and the current drainage system has been performed and the general outcome is that the changes made recently upon the property are not negatively impacting any surrounding property caused by a storm water situation.”**
 - B. The Zoning Department contracted with Berns, Clancy and Associates to complete an independent review of stormwater drainage for the subject property. They reviewed the engineering analysis prepared by Phoenix Consulting dated September 26, 2016, and concluded that the current basin as modified from the 2008 conditions apparently does not

meet the requirements of the current Champaign County Stormwater Management regulations. It also apparently does not meet the requirements of the 1993 county regulations.

- C. The Mahomet Township Plan Commission has been notified of this variance, but no comments have been received.
- D. The Township Road Commissioner has been notified of this variance, but no comments have been received.
- E. The Cornbelt Fire Protection District has been notified of this variance, but no comments have been received.
- F. The nearest structure on adjacent property is a residence about 30 feet south of the petitioner's detached garage.
- G. On March 21, 2017, Mr. Hewitt submitted an amended Application for Variance, unchanged from the November 14, 2016 submittal, with the addition of Mr. Wagner's and Mr. Wakefield's signatures as co-petitioners in support of the variance.
- H. On April 7, 2017, staff received a notarized document from Alan J. Williams, who owns Lot 99 (2310 E Pheasant Ridge Road) to the west of the subject property. Mr. Williams stated that he is aware that Mr. Blakeney placed fill and storm sewer appurtenances on the eastern edge of Lot 99, and he accepts the improvements as constructed on Lot 99 and has no objections to the modifications Mr. Blakeney made on the subject property.
- I. The release rate and design storm in the *Champaign County Storm Water Management and Erosion Control Ordinance* were first adopted in Zoning Case 729-AT-91. The following relevant findings have been excerpted from the Approved Finding of Fact for Case 729-AT-91 (included as an attachment to the Preliminary Memorandum):
 - (1) Finding of Fact #8 explained that, in regards to release rate, "AG-5" and "AG-2" referred to the rate of runoff that would occur from the development site in agricultural land cover conditions under either a 5 year or a 2 year return frequency storm.
 - (2) Finding of Fact #9 stated as follows: An important criterion for selection of a release rate was the capacity of the agricultural drainage ditches in the County. Information provided by the Embarras River Watershed Study indicated that not many of the channels in the watershed had the capacity to convey the Curve B, AG-2, or AG-5 amounts of runoff.
 - (3) Finding of Fact #14 stated as follows: Limiting effective discharges to the equivalent agricultural runoff should prevent increased erosion of streams and ditches.
 - (4) Finding of Fact #15 stated as follows: Limiting the discharge for the 50 year storm to the 5 year agricultural runoff rate will prevent increased flood damages due to urbanization.
- J. Regarding the proposed release rate from the basin outlet (not including the emergency spillway):

- (1) In the Engineering Analysis on earthen fill and drainage memorandum by Phoenix Consulting Engineers, Ltd. dated September 26, 2016, Table 2 and Table 3 provide the following data:
 - a. Table 2 indicates that the proposed Basin Outlet Pipe Flow and Velocity are less than the Flow and Velocity of the As Built 2008 Basin Outlet Pipe for both the 50-year and 100-year storm events.
 - b. Table 3 indicates that the Proposed Drainage Way Flow and Velocity exceed the As Built 2008 Drainage Way Flow and Velocity by only 0.2 cubic feet per second (cfs) and 0.1 feet per second, respectively.
 - (2) In their review of the proposed drainage easement fill that was documented in a letter dated February 3, 2017, Berns, Clancy and Associates stated the following in their item #6: The 1993 design indicated a maximum allowable peak rate of discharge during the 50 year return period storm as 5 cfs (cubic feet per second). This value is consistent with the Phoenix Analysis.
- K. Regarding the proposed flow (i.e. release rate) over the emergency spillway:
- (1) In the Engineering Analysis on earthen fill and drainage memorandum by Phoenix Consulting Engineers, Ltd. dated September 26, 2016, Table 4 provides the following data:
 - a. The Proposed Spillway Flow for the 50 Year Storm is 18.8 cubic feet per second versus the As Built 2008 Spillway Flow of 17.6 cubic feet per second.
 - b. The Proposed Spillway Flow for the 100 Year Storm is 21.0 cubic feet per second versus the As Built 2008 Spillway Flow of 22.2 cubic feet per second.
 - (2) In their review of the proposed drainage easement fill that was documented in a letter dated February 3, 2017, Berns, Clancy and Associates stated the following:
 - a. BCA item #4 states the following: “Table 4: Spillway Summary” lists flow rates that are leaving the basin through the emergency spillway. The original 1993 design did not allow for any flow over the emergency spillway during a 50 year storm event. Table 4 shows a flow of 17.6 cubic feet per second over the emergency spillway during a 50 year storm event for 2008 conditions.
 - b. BCA item #8 states the following: The proposed flow rate of 18.8 cubic feet per second in combination with the 4.8 cubic feet per second from the basin outlet pipe (Table 2. Basin Outlet Summary) for a total of 23.6 cubic feet per second is much above the maximum allowable release rate of 5 cubic feet per second for a 50 year storm event.
- L. On August 31, 2017, Mike Nickrent with Phoenix Consulting Engineers submitted a revised analysis via email to the P&Z Department, received September 1, 2017.
- (1) The Proposed Regrading improvements included with the analysis would increase the storm water storage volume from the existing 0.10 acre-feet at a water surface elevation of ±726.5 feet to 0.37 acre-feet at a water surface elevation of ±727.4 feet. Proposed maximum total controlled discharge would be 14.70 cfs.

- a. The maximum allowable discharge from the basin has been calculated to be 7.22 cfs using the parameters required by the SWMEC Ordinance.
 - b. The 1993 as-built detention basin held 0.37 acre-feet at an elevation of ± 726.9 feet, with a maximum total controlled discharge of 14.82 cfs. Mr. Nickrent noted at the July 13, 2017, hearing that the 1993 as-built basin did not meet the County Drainage Ordinance requirements due to the construction not being to plan.
 - c. The Proposed Regrading improvements would thus return the basin storage volume to nearly the same as that of the 1993 as-built condition. However, it should be noted that the proposed maximum total controlled discharge would still be much greater than the 7.22 cfs calculated using the parameters required by the SWMEC Ordinance.
 - d. P&Z Staff forwarded the revised analysis to its consulting engineer, Berns Clancy and Associates, for review.
- M. Don Wauthier, Vice President of Berns, Clancy and Associates, and consulting engineer for the P&Z Department, reviewed the revised analysis submitted by Phoenix Consulting Engineers received August 31, 2017.
- (1) Mr. Wauthier noted that the proposed improvements to the Rolling Hills V Subdivision drainage basin met some, but not all, of the 1993 as-built basin conditions.
 - (2) P&Z Staff received a markup of the drainage basin from Mr. Wauthier on September 7, 2017, in which he suggested that the markup could be used as the solution that would return the basin to 1993 as-built conditions. He said it would save the process time if all parties agreed to the markup solution rather than doing more calculations and revising previous efforts.
 - (3) Mr. Wauthier's markup solution includes the following changes from the Phoenix Complete Detention Basin Regrade received September 1, 2017:
 - a. Install one gabion mattress, 3 feet by 9 feet, installed just south of Lot 100.
 - (a) After discussion between Mr. Overmyer of Phoenix Consulting Engineers and John Hall, Mr. Wauthier agreed that the gabion mattress should be able to be installed on Mr. Blakeney's property instead of involving another property owner. Mr. Wauthier said that an existing pipe would need to be cut short, which should not be difficult to do.
 - b. A one foot deep surface drainage swale where landscaping is indicated near west property line on Lot 99 and Lot 100.
 - c. Increase height of east berm to 727.8 feet instead of 727.5 feet on Lots 89 and 100.

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- d. Add a flared end section to the storm sewer along the west property line and at the 15-inch storm sewer in detention basin.
- e. A somewhat deeper basin with an outlet depth that has been lowered by six inches.
- f. Use a 2.0% slope instead of a 1.5% slope in the detention basin.
- g. The basin outlet is 45 linear feet of 15-inch storm sewer at 1% slope rather than a 2.2% slope.

N. Mike Nickrent, Engineer with Phoenix Consulting Engineers, revised the Complete Detention Basin Regrade based on Mr. Wauthier's markup; P&Z Staff received this on September 13, 2017. P&Z Staff believe that the markup solution will have the effect of basic compliance with the SWMEC Ordinance.

GENERALLY REGARDING ANY OTHER JUSTIFICATION FOR THE VARIANCE

- 12. Generally regarding and other circumstances which justify the Variance:
 - A. The Petitioner did not provide a response to this question on the variance application.

GENERALLY REGARDING PROPOSED SPECIAL CONDITIONS OF APPROVAL

- 13. Regarding proposed special conditions of approval:
 - A. **Upon written request of any utility with an interest in using the utility and drainage easements, the owner shall be responsible for the full cost of removing any structure, and/or fill, and refusing to remove the structure and fill shall be considered a violation of the Zoning Ordinance.**

The special condition stated above is required to ensure the following:

That utility companies have appropriate access to their easements.

An Erosion and Sedimentation Control Plan shall be submitted to and approved by the Zoning Administrator prior to any regrading or further disturbance of the soil in the drainage easement and all approved erosion and sedimentation controls shall be maintained in place on all disturbed land until final stabilization has occurred.

The above special condition is necessary to ensure the following:

To minimize erosion and sedimentation on downstream properties.

- C. **The Revised Complete Detention Basin Regrade received September 13, 2017, is the Official Site Plan for Case 863-V-16, which includes the following changes:**
 - (1) Install one gabion mattress, 3 feet by 9 feet, installed just south of Lot 100.
 - (2) A one foot deep surface drainage swale where landscaping is indicated near west property line on Lot 99 and Lot 100.
 - (3) Increase height of east berm to 727.8 feet instead of 727.5 feet on Lots 89 and 100.

- (4) Add a flared end section to the storm sewer along the west property line and at the 15-inch storm sewer in detention basin.
- (5) A somewhat deeper basin with an outlet depth that has been lowered by six inches.
- (6) Use a 2.0% slope instead of a 1.5% slope in the detention basin.
- (7) The basin outlet is 45 linear feet of 15-inch storm sewer at 1% slope rather than a 2.2% slope.

The above special condition is necessary to ensure the following:

That it is clear which version of the Site Plan submitted by the petitioner is the approved Site Plan.

- D. **A Zoning Compliance Certificate shall be approved within 12 months of approval of this variance. Prior to the issuance of the Zoning Compliance Certificate, the petitioner shall provide the Zoning Administrator with a copy of the as-built drawings of the detention basin including a written certification of the required storage volume, which are certified by an Illinois Professional Engineer, and the Zoning Administrator shall verify the as-built drawings are in substantial compliance with the approved site plan before approving the Zoning Compliance Certificate.**

The above special condition is necessary to ensure the following:

To ensure that the constructed facility is substantially the same as the approved Site Plan for Case 863-V-16.

- E. **The approved site plan in this variance case shall become the approved site plan for Zoning Use Permit #82-16-01.**

The above special condition is necessary to ensure the following:

To ensure proper permitting and compliance of all authorized construction.

DOCUMENTS OF RECORD

1. Variance Application received on November 14, 2016, with attachments:
 - A Site Plan received November 14, 2016
 - B Memorandum from Phoenix Consulting Engineers, LTD dated September 26, 2016, regarding the engineering analysis on the earthen fill and drainage (same as received by staff on October 5, 2016)
 - C Storm water management analysis created by Phoenix Consulting Engineers, LTD (same as received by staff on October 5, 2016)
2. Amended Variance Application received March 21, 2017, with co-petitioner signatures, no other changes to the November 14, 2016, application
3. Approved Site Plan for ZUPA #82-16-01, approved April 7, 2016 – revised by petitioner on June 27, 2016, and annotated by staff on April 18, 2017
4. Approved Site Plan for ZUPA #246-97-01, approved September 3, 1997
5. Excerpt from the Approved Final Plat of Subdivision for Rolling Hills Estates V, recorded August 13, 1993 for Rolling Hills Estates V, recorded August 13, 1993
6. Excerpt from the “Approved Grading and Subsidiary Drainage Plat” for Rolling Hills Estates V by Altech Consultants, approved July 20, 1993
7. Excerpt from the “Approved Grading and Subsidiary Drainage Plat” for Ridge Creek Subdivision by Altech Consultants, revised June 15, 1994
8. Covenants for Rolling Hills Estates V, signed July 27, 1993
9. Finding of Fact and Final Determination for Case 729-AT-90 dated November 14, 1991
10. 2008 CCGIS aerial photo with contours, created by staff on April 18, 2017
11. First Notice of Violation dated June 10, 2016, for destruction of natural drainage
12. First Notice of Violation dated June 21, 2016, for placing a shed on unauthorized fill in an easement
13. Email from Eric Hewitt of Phoenix Consulting Engineers, Ltd, received on October 5, 2016, with attachments:
 - Memorandum dated September 26, 2016, regarding the engineering analysis on the earthen fill and drainage
 - Storm water management analysis created by Phoenix Consulting Engineers, LTD
 - Limited Topographic Survey created by Phoenix Consulting Engineers, LTD
14. Email from John Hall to Eric Hewitt dated October 12, 2016
15. Letter from Mr. Hall to Mr. Blakeney dated October 17, 2016

16. Email from Eric Hewitt received October 26, 2016
17. Email from Kelly Pfeifer received October 27, 2016
18. Storm water drainage review memorandum created by Berns, Clancy and Associates on February 3, 2017, and received February 6, 2017
19. Notarized statement from Alan J. Williams, owner of Lot 100, Rolling Hills Estates V Subdivision received April 7, 2017
20. Preliminary Memorandum dated April 20, 2017, with attachments:
 - A Case Maps (Location, Land Use, Zoning)
 - B Site Plan received November 14, 2016
 - C Approved Site Plan for ZUPA #82-16-01, approved April 7, 2016 – revised by petitioner on June 27, 2016, and annotated by staff on April 18, 2017
 - D Approved Site Plan for ZUPA #246-97-01, approved September 3, 1997
 - E Excerpt from the Approved Final Plat of Subdivision for Rolling Hills Estates V, recorded August 13, 1993
 - F Excerpt from the “Approved Grading and Subsidiary Drainage Plat” for Rolling Hills Estates V by Altech Consultants, approved July 20, 1993
 - G Excerpt from the “Approved Grading and Subsidiary Drainage Plat” for Ridge Creek Subdivision by Altech Consultants, revised June 15, 1994
 - H Covenants for Rolling Hills Estates V, signed July 27, 1993
 - I Finding of Fact and Final Determination for Case 729-AT-90 dated November 14, 1991
 - J 2008 CCGIS aerial photo with contours, created by staff on April 18, 2017
 - K First Notice of Violation dated June 10, 2016, for destruction of natural drainage
 - L First Notice of Violation dated June 21, 2016, for placing a shed on unauthorized fill in an easement
 - M Email from Eric Hewitt of Phoenix Consulting Engineers, Ltd, received on October 5, 2016, with attachments:
 - Memorandum dated September 26, 2016, regarding the engineering analysis on the earthen fill and drainage
 - Limited Topographic Survey created by Phoenix Consulting Engineers, LTD
 - N Email from John Hall to Eric Hewitt dated October 12, 2016
 - O Letter from Mr. Hall to Mr. Blakeney dated October 17, 2016
 - P Email from Eric Hewitt received October 26, 2016
 - Q Email from Kelly Pfeifer received October 27, 2016
 - R Storm water drainage review memorandum by Berns, Clancy and Associates on February 3, 2017, and received February 6, 2017
 - S Notarized statement from Alan J. Williams, owner of Lot 100, Rolling Hills Estates V Subdivision received April 7, 2017
 - T Images of Subject Property taken January 25, 2017
 - U Draft Summary of Evidence, Finding of Fact, and Final Determination dated April 27, 2017

21. Supplemental Memorandum #1 dated April 27, 2017, with attachments:

- A Email from neighbor Kevin Schwenk was receive on April 21, 2017, with attachments:
 - 1 Invoice dated June 3, 1999 from Raup Construction, Inc.
 - 2 Invoice dated July 20, 1999 from Raup Construction, Inc.

- 3 Invoice dated June 15, 1999 from Turner's Lawn Grading
- 4 Undated bid from Turner's Lawn Grading for west side ditch
- 5 Undated bid from Turner's Lawn Grading for east side of drive
- 6 Undated bid from Turner's Lawn Grading for cleaning out trees behind house
- 7 Invoice dated July 13, 2010 from Jackson Excavating for rip rap delivery
- 8 2 aerial photos of subject property, undated
- 9 Signed note from Scott Blakeney to Kevin Schwenk, undated
- B Email from Tom Overmyer, PE, President of Phoenix Consulting Engineers, received on April 26, 2017

22. Supplemental Memorandum #2 dated July 6, 2017, with attachments:

- A Email from neighbors Kevin and Mary Schwenk received on April 28, 2017, with photos
- B Existing Conditions (Current Basin 50 Year Event) created by Phoenix Consulting Engineers, received July 6, 2017
- C Proposed Lot 100 Regrade created by Phoenix Consulting Engineers, received July 6, 2017
- D Proposed Complete Detention Basin Regrade created by Phoenix Consulting Engineers, received July 6, 2017

23. Supplemental Memorandum #3 dated September 7, 2017, with attachments:

- A Stormwater Management Memorandum dated August 31, 2017
- B Summary of Drainage Analysis dated August 31, 2017
- C Complete Detention Basin Regrade dated August 31, 2017
- D Items presented at the July 13, 2017 ZBA meeting and digitally received September 6, 2017:
 - Clinton Labeau email dated April 27, 2017, with letter attached
 - Ashlee Vercler letter dated April 24, 2017
 - 8 photos presented by Mr. and Mrs. Schwenk
 - 5 presentation boards by Mr. and Mrs. Schwenk

24. Supplemental Memorandum #4 dated September 14, 2017, with attachments:

- A Markup from Don Wauthier at Berns, Clancy & Associates received September 7, 2017
- B Email from Mike Nickrent at Phoenix Consulting Engineers received September 13, 2017, with attachment: Revised Complete Detention Basin Regrade
- C Email from Mike Nickrent received September 14, 2017
- D Revised Summary of Evidence, Finding of Fact, and Final Determination dated September 14, 2017

FINDINGS OF FACT

From the documents of record and the testimony and exhibits received at the public hearing for zoning case **863-V-16** held on **April 27, 2017, and September 14, 2017**, the Zoning Board of Appeals of Champaign County finds that:

1. Special conditions and circumstances *{DO / DO NOT}* exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district because:
2. Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied *{WILL / WILL NOT}* prevent reasonable or otherwise permitted use of the land or structure or construction because:
3. The special conditions, circumstances, hardships, or practical difficulties *{DO / DO NOT}* result from actions of the applicant because:
4. The requested variance *{SUBJECT TO THE PROPOSED CONDITION}* *{IS / IS NOT}* in harmony with the general purpose and intent of the Ordinance because:
5. The requested variance *{SUBJECT TO THE PROPOSED CONDITION}* *{WILL / WILL NOT}* be injurious to the neighborhood or otherwise detrimental to the public health, safety, or welfare because:
6. The requested variance *{SUBJECT TO THE PROPOSED CONDITION}* *{IS / IS NOT}* the minimum variation that will make possible the reasonable use of the land/structure because:
7. ***{NO SPECIAL CONDITIONS ARE HEREBY IMPOSED / THE SPECIAL CONDITIONS IMPOSED HEREIN ARE REQUIRED FOR THE PARTICULAR PURPOSES DESCRIBED BELOW:}***
 - A. **Upon written request of any utility with an interest in using the utility and drainage easements, the owner shall be responsible for the full cost of removing any structure, and/or fill, and refusing to remove the structure and fill shall be considered a violation of the Zoning Ordinance.**

The special condition stated above is required to ensure the following:

That utility companies have appropriate access to their easements.

- B. **An Erosion and Sedimentation Control Plan shall be submitted to and approved by the Zoning Administrator prior to any regrading or further disturbance of the soil in the drainage easement and all approved erosion and sedimentation controls shall be maintained in place on all disturbed land until final stabilization has occurred.**

The above special condition is necessary to ensure the following:

To minimize erosion and sedimentation on downstream properties.

C. The Revised Complete Detention Basin Regrade received September 13, 2017, is the Official Site Plan for Case 863-V-16, which includes the following changes:

- (1) Install one gabion mattress, 3 feet by 9 feet, installed just south of Lot 100.
- (2) A one foot deep surface drainage swale where landscaping is indicated near west property line on Lot 99 and Lot 100.
- (3) Increase height of east berm to 727.8 feet instead of 727.5 feet on Lots 89 and 100.
- (4) Add a flared end section to the storm sewer along the west property line and at the 15-inch storm sewer in detention basin.
- (5) A somewhat deeper basin with an outlet depth that has been lowered by six inches.
- (6) Use a 2.0% slope instead of a 1.5% slope in the detention basin.
- (7) The basin outlet is 45 linear feet of 15-inch storm sewer at 1% slope rather than a 2.2% slope.

The above special condition is necessary to ensure the following:

That it is clear which version of the Site Plan submitted by the petitioner is the approved Site Plan.

D. A Zoning Compliance Certificate shall be approved within 12 months of approval of this variance. Prior to the issuance of the Zoning Compliance Certificate, the petitioner shall provide the Zoning Administrator with a copy of the as-built drawings of the detention basin including a written certification of the required storage volume, which are certified by an Illinois Professional Engineer, and the Zoning Administrator shall verify the as-built drawings are in substantial compliance with the approved site plan before approving the Zoning Compliance Certificate.

The above special condition is necessary to ensure the following:

To ensure that the constructed facility is substantially the same as the approved Site Plan for Case 863-V-16.

E. The approved site plan in this variance case shall become the approved site plan for Zoning Use Permit #82-16-01.

The above special condition is necessary to ensure the following:

To ensure proper permitting and compliance of all authorized construction.

FINAL DETERMINATION

The Champaign County Zoning Board of Appeals finds that, based upon the application, testimony, and other evidence received in this case, that the requirements for approval in Section 9.1.9.C *{HAVE/HAVE NOT}* been met, and pursuant to the authority granted by Section 9.1.6.B of the Champaign County Zoning Ordinance, the Zoning Board of Appeals of Champaign County determines that:

The Variance requested in Case **863-V-16** is hereby *{GRANTED / GRANTED WITH CONDITIONS / DENIED}* to the petitioners, **Scott Blakeney, Derek Wagner, and Tyler Wakefield**, to authorize the following variance in the R-1 Single Family Residence Zoning District:

Existing residence, patio, detached shed, and earth fill that occupy part of a drainage and utility easement in lieu of the requirement that no use shall be established, construction undertaken, nor fill placed in any recorded drainage or utility easement.

{SUBJECT TO THE FOLLOWING CONDITION(S):}

- A. **Upon written request of any utility with an interest in using the utility and drainage easements, the owner shall be responsible for the full cost of removing any structure, and/or fill, and refusing to remove the structure and fill shall be considered a violation of the Zoning Ordinance.**
- B. **An Erosion and Sedimentation Control Plan shall be submitted to and approved by the Zoning Administrator prior to any regrading or further disturbance of the soil in the drainage easement and all approved erosion and sedimentation controls shall be maintained in place on all disturbed land until final stabilization has occurred.**
- C. **The Revised Complete Detention Basin Regrade received September 13, 2017, is the Official Site Plan for Case 863-V-16, which includes the following changes:**
 - (1) Install one gabion mattress, 3 feet by 9 feet, installed just south of Lot 100.
 - (2) A one foot deep surface drainage swale where landscaping is indicated near west property line on Lot 99 and Lot 100.
 - (3) Increase height of east berm to 727.8 feet instead of 727.5 feet on Lots 89 and 100.
 - (4) Add a flared end section to the storm sewer along the west property line and at the 15-inch storm sewer in detention basin.
 - (5) A somewhat deeper basin with an outlet depth that has been lowered by six inches.
 - (6) Use a 2.0% slope instead of a 1.5% slope in the detention basin.
 - (7) The basin outlet is 45 linear feet of 15-inch storm sewer at 1% slope rather than a 2.2% slope.
- D. **A Zoning Compliance Certificate shall be approved within 12 months of approval of this variance. Prior to the issuance of the Zoning Compliance Certificate, the petitioner shall provide the Zoning Administrator with a copy of the as-built**

drawings of the detention basin including a written certification of the required storage volume, which are certified by an Illinois Professional Engineer, and the Zoning Administrator shall verify the as-built drawings are in substantial compliance with the approved site plan before approving the Zoning Compliance Certificate.

E. The approved site plan in this variance case shall become the approved site plan for Zoning Use Permit #82-16-01.

The foregoing is an accurate and complete record of the Findings and Determination of the Zoning Board of Appeals of Champaign County.

SIGNED:

Eric Thorsland, Chair
Champaign County Zoning Board of Appeals

ATTEST:

Secretary to the Zoning Board of Appeals

Date