

CENTERVILLE CITY PLANNING COMMISSION AGENDA

NOTICE IS HEREBY GIVEN THAT THE CENTERVILLE CITY PLANNING COMMISSION WILL HOLD ITS REGULAR PUBLIC MEETING AT 7:00 PM ON APRIL 25, 2018 AT THE CENTERVILLE CITY COMMUNITY CENTER AND CITY HALL COUNCIL CHAMBERS, 250 NORTH MAIN STREET, CENTERVILLE, UTAH. THE AGENDA IS SHOWN BELOW.

Meetings of the City Council of Centerville City may be conducted via electronic means pursuant to Utah Code Ann. 52-4-207, as amended. In such circumstances, contact will be established and maintained via electronic means and the meeting will be conducted pursuant to the Electronic Meetings Policy established by the City Council for electronic meetings.

Centerville City, in compliance with the Americans With Disabilities Act, provides accommodations and auxiliary communicative aids and services for all those citizens in need of assistance, including hearing devices. Persons requesting these accommodations for City-sponsored public meetings, services, programs, or events should call Jacob Smith, Centerville Management Services Director, at 801-295-3477, giving at least 24 hours notice prior to the meeting.

A notebook containing supporting materials for the business agenda items is available for public inspection and review at City Hall and will be available for review at the meeting. The full packet can also be viewed on the City's website: <http://centerville.novusagenda.com/agendapublic>.

Tentative - The times shown below are tentative and are subject to change during the meeting.
Time:

- 7:00 PM **A. WELCOME AND ROLL CALL**
B. PLEDGE OF ALLEGIANCE
C. PRAYER OR THOUGHT

Logan Johnson, Commissioner

D. COMMISSION BUSINESS

- 7:10 1. Public Hearing - Zoning Map Amendment - ~640 West Porter Lane
LEGISLATIVE DECISION
Consider the proposed zoning map amendment for the property at ~640 W Porter Lane (400 South), from an Agricultural-Low zone to Residential-Medium.
- 7:30 2. Public Hearing - Zoning Text Amendment - CZC 12.42 - Hillside Overlay Zone
LEGISLATIVE DECISION
Consider the proposed zoning text amendment, CZC 12.42, regarding impervious surface requirements within the Hillside Overlay Zone.
- 7:50 3. Planning Commission Decision Matrix -- Administrative Procedures
DISCUSSION
Staff and Commission will discuss administrative procedures, State requirements, and discuss possible amendments to procedures on the City level.

E. MINUTES REVIEW and ACCEPTANCE

April 11th, 2018

F. ADJOURNMENT

**CENTERVILLE
PLANNING COMMISSION
Staff Backup Report
4/25/2018**

Item No. 1.

Short Title: Public Hearing - Zoning Map Amendment - ~640 West Porter Lane

Initiated By: Dave Bell, Applicant

Scheduled Time: 7:10

SUBJECT

LEGISLATIVE DECISION

Consider the proposed zoning map amendment for the property at ~640 W Porter Lane (400 South), from an Agricultural-Low zone to Residential-Medium.

RECOMMENDATION

Refer to staff report

BACKGROUND

Refer to staff report

ATTACHMENTS:

Description

- ▢ 4-25-18 PC Staff Report Bell Rezone 640 W Porter Lane

**CENTERVILLE CITY
COMMUNITY DEVELOPMENT DEPARTMENT
655 North 1250 West, Centerville, Utah 84014
(801) 292-8232**

**STAFF REPORT
AGENDA: ITEM 1**

PROPERTY OWNER: **DAVID BELL**
 335 SOUTH FRONTAGE ROAD
 CENTERVILLE, UT 84014
 (davescompleteauto@gmail.com)

PROPERTY LOCATION: **640 WEST PORTER LANE**

PARCEL SIZES: **2.055 ACRES - COMBINED**

PARCEL NUMBERS: **03-001-0178 & 03-001-0179**

APPLICATION: **ZONING MAP AMENDMENT – REQUEST TO REZONE A
TRACT OF LAND FROM A-L TO R-M**

STAFF RECOMMENDATION: **RECOMMEND APPROVAL OF THE REZONE TO
THE CITY COUNCIL**

BACKGROUND

The petitioner desires to acquire these two (2) properties (vacant lot and a lot with home) located at 640 West Porter Lane. It appears that some years ago, the land was divided from the home (or vice a versa) without any record of approval from the City (records not available). The current zoning map depicts that these two (2) tracts of land are Zoned Agricultural-Low (A-L). It's the intent of the buyer to further develop the land into townhomes, which could be an allowed project provided it meets the development allowances of the R-M Zone.



The properties will have to be recombined with City approval.

The property owner, along with a petitioner, came to the City Council to rezone this property in June of 2017 and was denied. Since the first petition of this property, the City Council has since

changed the maximum density allowed in Residential Medium zones with a permitted density of six units per acre, without the option for additional units through a Conditional Use Permit. This would mean that if the proposed zone map amendment is approved, the property could potentially have as many as 12 units on the site.

REVIEW AND ANALYSIS OF THE REQUEST

Zone Map Amendment - Factors to be considered, CZC 12-21-080(e)

1. Is the proposed amendment consistent with the goals, objectives and policies of the City's General Plan?

The properties are located in the Southwest Neighborhood Plan Area. The neighborhood plan indicates that the area from 500 West to the commercial area on the Frontage Road may be appropriately developed with low to medium density residential. In addition, the plan encourages the use of "planned development" type use to act as a buffer between the commercial uses to the west and the single-family use areas in the neighborhood (*see Section 12-480-1.a*).

Staff Response: Since the neighborhood plan anticipates low to medium residential uses for this area, the petition for rezone to R-M can be deemed consistent with the City's General Plan.

2. Is the proposed amendment harmonious with the overall character of existing development in the vicinity of the subject property?

Staff Response: Located just across the street to the south, there is a Residential-Medium Zone (*i.e. Shaela Park*) within the identified geographical policy area. The Shaela Park PUD, an R-M Planned Development project, was approved by the City in 1998. Furthermore, the Porter-Walton Townhomes, also an R-M development located directly to the east was approved by the City in January 2016. Therefore, the request is consistent with surrounding development in the vicinity.

3. What is the extent to which the proposed amendment may adversely affect adjacent property?

Staff's Response: Currently, the land is largely a narrow open field with an isolated single-family home in the north area. The surrounding area to the southeast consists of a few older homes fronting Porter Lane; again to the east, is the Porter-Walton Townhomes; directly south, the Shaela Park Subdivision; to the west, there are several the commercial uses along the Frontage Road; lastly, the area to the north is the intensive Commercial-Very High (Home Depot & Kohls) separated by a regional detention basin. From staff's review, the R-M request functions as a buffer use area that is compatible with the characteristic multi-zone land use pattern for the immediate area.

4. What is the adequacy of facilities and services intended to serve the subject property?

Staff Response: Utilities are located on the surrounding properties, and all have facilities and services that are already available to the area. However, staff is aware that site drainage generally flows to the north and unless the properties are raised with additional fill or an alternative outlet is provided by securing necessary permissions and easements, storm drainage will be a considerable design element for any residential development of the site. The property owner may have to receive private easements from surrounding property owners in order to economically connect to these services if the property owner does not want to provide a significant amount of fill on-site.

PLANNING STAFF RECOMMENDATION

(Suggested Motion) “I hereby make a motion for the Planning Commission to **RECOMMEND APPROVAL** of the Zone Map Amendment for land parcels **03-001-0178 & 03-001-0179** from Agricultural-Low to Residential-Medium, provided however, the unapproved division of the parcels shall be combined into a singular parcel, on the County’s records, prior to any approval of any future development plan.”

Suggested Reasons for the Action (Findings):

1. The Planning Commission has sufficiently reviewed and considered the criteria found in Section CZC 12.21.080.e of the Zoning Ordinance.
2. The Planning Commission finds that the rezone is consistent with the goals of the General Plan, as described in Section 12-480-1.a.
3. The Planning Commission finds that the rezone does not create any additional constraints or adverse effects concerning surrounding properties and development in the immediate vicinity.
4. The Planning Commission finds that the R-M request functions as an acceptable medium density residential buffer to commercial that is compatible with the characteristic multi-zone land use pattern for the immediate area.
5. Therefore, the Planning Commission finds that the R-M Zoning designation ought to be approved.

**CENTERVILLE
PLANNING COMMISSION
Staff Backup Report
4/25/2018**

Item No. 2.

Short Title: Public Hearing - Zoning Text Amendment - CZC 12.42 - Hillside Overlay Zone

Initiated By: Fred Hale, Applicant

Scheduled Time: 7:30

SUBJECT

LEGISLATIVE DECISION

Consider the proposed zoning text amendment, CZC 12.42, regarding impervious surface requirements within the Hillside Overlay Zone.

RECOMMENDATION

Refer to Staff report

BACKGROUND

Refer to Staff Report

ATTACHMENTS:

Description

- ▣ 04-25-2018 PC Staff Report ZO Text Amendment- Hillside Overlay - Fred Hale
- ▣ 04-25-2018 Fred Hale Petition- Hillside Overlay

**CENTERVILLE CITY
COMMUNITY DEVELOPMENT DEPARTMENT
655 North 1250 West, Centerville, Utah 84014
(801) 292-8232**

**STAFF REPORT
AGENDA: ITEM 2**

APPLICANT: **FRED HALE**
 63 WEST 1750 NORTH
 CENTERVILLE, UT 84014
 (fredh@colonialbuilding.com)

APPLICATION: **ZONING ORDINANCE TEXT AMENDMENT**

APPLICATION REQUEST: **AMEND THE ZONING CODE OF THE HILLSIDE
OVERLAY RELATING TO THE “MAXIMUM
IMPERVIOUS COVERAGE LIMITATIONS”**

RECOMMENDATION: RECOMMEND APPROVAL TO THE CITY COUNCIL

BACKGROUND

The petitioner, Mr. Fred Hale, recently submitted a set of home construction plans for Lot 4 of the Rigby Court Subdivision. Lot 4 consists of 1.028 acres, which is located in the Agricultural-Low (A-L) Zone. This lot is also located within the Hillside Overlay Zone and subject to those additional provisions. As part of the City’s review, the proposed plans for the lot exceed the “Maximum Impervious Material Coverage” restrictions of the Overlay Zone. In accordance with CZC 12.42.040.d, the maximum limits (*for any lot regardless of the underlying zoning*) are as follows:

“Maximum Impervious Material Coverage. The maximum allowable coverage of a lot in the Hillside Overlay Zone by impervious material shall be 40% of the total lot area, or 5,000 square feet, whichever is less.”

As it stands, the current overlay limits “impervious coverage” for Lot 4 to 5,000 square feet, even though the property is approximately one (1) acre in size. In a comparative scenario, a ¼ acre lot (10,800 sq. ft) of the R-L Zone, subject to the Overlay provisions, would only be limited to 4,320 sq. ft, nearly the same allotment as an acre size lot. Consequently, the petitioner desires to amend the Overlay provisions to achieve a greater balance between the differing lot sizes that could occur in the various zones (*predominately R-L & A-L*) of the Overlay area.

APPLICANT'S PROPOSED CHANGE OF LANGUAGE REGARDING "MAXIMUM IMPERVIOUS MATERIAL COVERAGE (SEE ATTACHMENT FOR THE FULL REQUEST).

"As requested at our meeting I am providing you a proposal for an ordinance change that will allow for larger homes in the hillside areas. This proposal will consider the increase of runoff due to the additional impervious surface area when this area exceed 5,000 sq. ft. There are two items that need to be considered in the design, first the size of the required retention basin and second the allowable size of the orifice plate or discharge pipe."

The submitted request also details the suggested engineering standards and calculations. However, the Development Review Committee (DRC) believes that such elements are standardized specifications, which language is not needed to be included in the Zoning Ordinance. Therefore, the DRC (*with the assistance of Lisa Romney*) is recommending a modification to the language provided by the petitioner.

DRC Recommended Edits:

CZC 12.42.040 Development Requirements

- (d) Maximum Impervious Material Coverage. *Except as otherwise provided herein, the maximum allowable coverage of a lot in the Hillside Overlay Zone by impervious material shall be 40% of the total lot area, or 5,000 square feet, whichever is less. The maximum allowable impervious material coverage of a lot may be allowed to exceed 5,000 square feet as an exception upon recommendation of the City Engineer and approval of the applicable land use authority for the subject application (i.e. subdivision, site plan, or building permit).*

Any applicant seeking an exception to exceed 5,000 square feet of impervious material coverage per lot shall be required to provide on-site detention and appropriately sized outflow orifice plates for the additional impervious area (over 5,000 square feet) in accordance with City Engineer recommended detention volume calculations for a 25-year storm event.

The applicant shall be required to provide engineered drawings and specifications for the proposed detention and drainage to qualify for the exception. In no event shall the impervious material coverage of any lot in the Hillside Overlay Zone exceed 40% of the total lot area.

For purposes of calculating the permissible lot coverage percentage, lot areas that exceed 30% slope shall be excluded and shall not be used in calculating the permitted 40% coverage area.

TEXT AMENDMENT REVIEW AND ANALYSIS (12.21.080.E)

1. **Is the proposed text or map amendment consistent with the goals, objectives and policies of the City's General Plan?**

GP SECTION 12-420-2.3. RESIDENTIAL DEVELOPMENT POLICIES. The following policies are adopted specifically for the achievement of the citizens' desires for “*Residential Development*” in Centerville.

“The hillsides and naturally wooded canyons east of the City should be provided protection from indiscriminate development to assure retention of the natural slopes and vegetation.”

GP SECTION 12-440-3. NATURAL HAZARDS POLICIES. The following policies are adopted specifically for the achievement of the citizens' desires for “*Natural Hazards*” in Centerville.

“Earthquake or seismic hazards have been identified as a significant potential problem in Centerville. All future residential developments should take into consideration the location of the fault lines and other seismically-related hazards. Centerville City shall require the advice of competent geotechnical advisors when development is proposed in seismic hazard areas”

Staff Analysis and Comment:

It is the position of staff that the proposed language changes remain consistent with the policies of the General Plan and the hillslope development provisions in relation to impervious coverage standards between agricultural and residential lots within the Hillside Overlay. The amendment still appropriately limits the amount of impervious coverage for Hillside development to 40% or under and adds the ability to detain the storm water runoff to protect an adjacent lot from storm water runoff. Keep in mind a typical flat lot development standard has a maximum impervious coverage limit of 60%.

PLANNING STAFF RECOMMENDATION

Suggested Motion for an amendment to the Centerville City Zoning Ordinance regarding the proposed Hillside Overlay amendments – **I hereby make a motion for the Planning Commission to recommend to the City Council to approve the proposed Hillside Overlay amendment, CZC 12.42.040(d), as follows:**

Maximum Impervious Material Coverage. Except as otherwise provided herein, the maximum allowable coverage of a lot in the Hillside Overlay Zone by impervious material shall be 40% of the total lot area, or 5,000 square feet, whichever is less. The maximum allowable impervious material coverage of a lot may be allowed to exceed 5,000 square feet as an exception upon recommendation of the

City Engineer and approval of the applicable land use authority for the subject application (i.e. subdivision, site plan, or building permit).

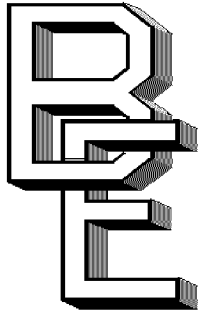
Any applicant seeking an exception to exceed 5,000 square feet of impervious material coverage per lot shall be required to provide on-site detention and appropriately sized outflow orifice plates for the additional impervious area (over 5,000 square feet) in accordance with City Engineer recommended detention volume calculations for a 25-year storm event.

The applicant shall be required to provide engineered drawings and specifications for the proposed detention and drainage to qualify for the exception. In no event shall the impervious material coverage of any lot in the Hillside Overlay Zone exceed 40% of the total lot area.

For purposes of calculating the permissible lot coverage percentage, lot areas that exceed 30% slope shall be excluded and shall not be used in calculating the permitted 40% coverage area.

Suggested Reasons for Findings:

- a. *The Planning Commission finds that the “decision to amend the...zoning ordinance is a matter of within the legislative discretion of the City Council as described in CZC 12.21.060.a.1.B.*
- b. *The Planning Commission finds that amendments consistent with the goals, objectives and policies of the City’s General Plan, as presented in the staff report.*
- c. *The Planning Commission finds that this amendment would serve to treat the residential and agricultural zones fairly as regulated within the Hillside Overlay Zone and remain consistent within the regulations and parameters of the code.*
- d. *Therefore, the Planning Commission finds that the amendments are consistent with the desire to allow hillside development to be contextually developed in relation to topography and slope stability.*



Balling Engineering

323 East Pages Lane
P.O. Box 805
Centerville, Utah 84014
Phone: (801) 295-7237
Fax: (801) 299-0419
Email: jscottballing@gmail.com

April 3rd, 2018

Kevin Campbell
Centerville City Engineer
Email: kevin.campbell@esieng.com

Proposed Change of Language for Hillside Ordinance to allow larger homes on lots.

As requested at our meeting I am providing you a proposal for an ordinance change that will allow for larger homes in the hillside areas. This proposal will consider the increase of runoff due to the additional impervious surface area when this area exceed 5,000 sq. ft. There are two items that need to be considered in the design, first the size of the required retention basin and second the allowable size of the orifice plate or discharge pipe. These are considered as follows:

Retention Basin Sizing

I propose that his size be considered using the following rational method equation:

$$V = [CiA - 0.2A]T$$

V = Required Basin Volume (cubic feet)

C = Difference in Runoff Coefficient (0.90 – 0.15) = 0.75

i = Rainfall Intensity (in/hour)

A = Additional Impervious Surface Area (acres)

0.2 = Allowable outflow (cfs)

T = Peak time of retention (sec.)

As you can see from this equation the two variables are the Rainfall Intensity and the Peak Time. If you would be willing to standardize these two variables it would certainly simplify this equation for all development. I have attached a copy of the NOAA Rainfall Calculation for The Rigby Court Property. As you can see the Rainfall intensity for a 25 year/ one hour storm is 1.31 in/hr. I checked this same number at the intersection of Main and Parrish Lane and it was 1.25 in/hr. I don't think you will find a significant change is this number across the city and I think you would be safe to assume an average value of 1.30 in/hr. for the city.

The peak time of the storm would be affected by several variables such as slope, configuration, size and vegetation. I have attached a spreadsheet which shows the calculation for Mr. Hales plan. This shows that the peak time would be at 60 mins. It is my opinion that you will not see a significant change in this peak time for most of the designs you receive for larger lots and you could safely assume that 60 mins is the peak time for all basins.

Based on these assumptions the above equation can be simplified and converted to more usable terms as follows:

$$V = [(0.75)(1.30)(A) - (0.2)(A)](3600) = 2790A \quad \text{With A in Acres}$$

It would probably be easier if A was converted to Square Feet. Therefore the equation would be

$$V = 2790A/43560 = 0.064A$$

This is the Equation I would recommend using for all area above the 5,000 square feet.

Orifice Plate Sizing

I recommend using the following equation for the sizing of the orifice plate.

$$Q = (K)(D)^2(H)^{1/2} \quad \text{HEC-22 Equation 8-18}$$

Q = Flow Rate 0.2(A) (cfs)

K = Orifice Coefficient (3.78)

D = Orifice Diameter (ft.)

H = Head at Orifice Plate (ft.)

In terms of the Diameter this is as follows:

$$D = [(Q)/(K)(H)^{1/2}]^{1/2}$$

Inserting the know values and converting to more friendly terms this equation can be reduced as follows:

$$D = \{[(0.2A/43560)/3.78H^{1/2}]^{1/2}\} 12 =$$

$$D = 0.0132(A/H^{1/2})^{1/2}$$

D = Plate Diameter (inches)

A = Area (square feet)

H = Head at orifice Plat (ft.)

Based on this information I propose the following be added to the ordinance:

“In the event the impervious surface exceeds 5,000 square feet the applicant shall provide on site retention for the additional area according to the following equation

$$V = 0.064 A$$

V = Retention Volume (cubic feet)

A = Additional impervious area over 5,000 square feet (square feet)

The allowable outflow orifice plate should be sized according to the following equation

$$D = 0.0132(A/H^{1/2})^{1/2}$$

D = Plate Diameter (inches)

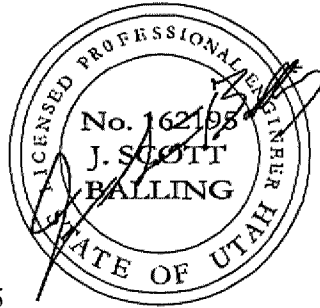
A = Area (square feet)

H = Head at orifice Plat (ft.)

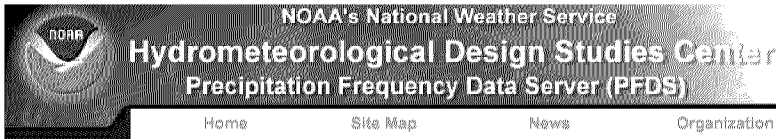
In no event shall the impervious surface exceed 40% of the total lot area.”

Please review the above information and we can discuss this at our meeting next Monday.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Scott Balling".

J. Scott Balling, P.L.S. No. 162195

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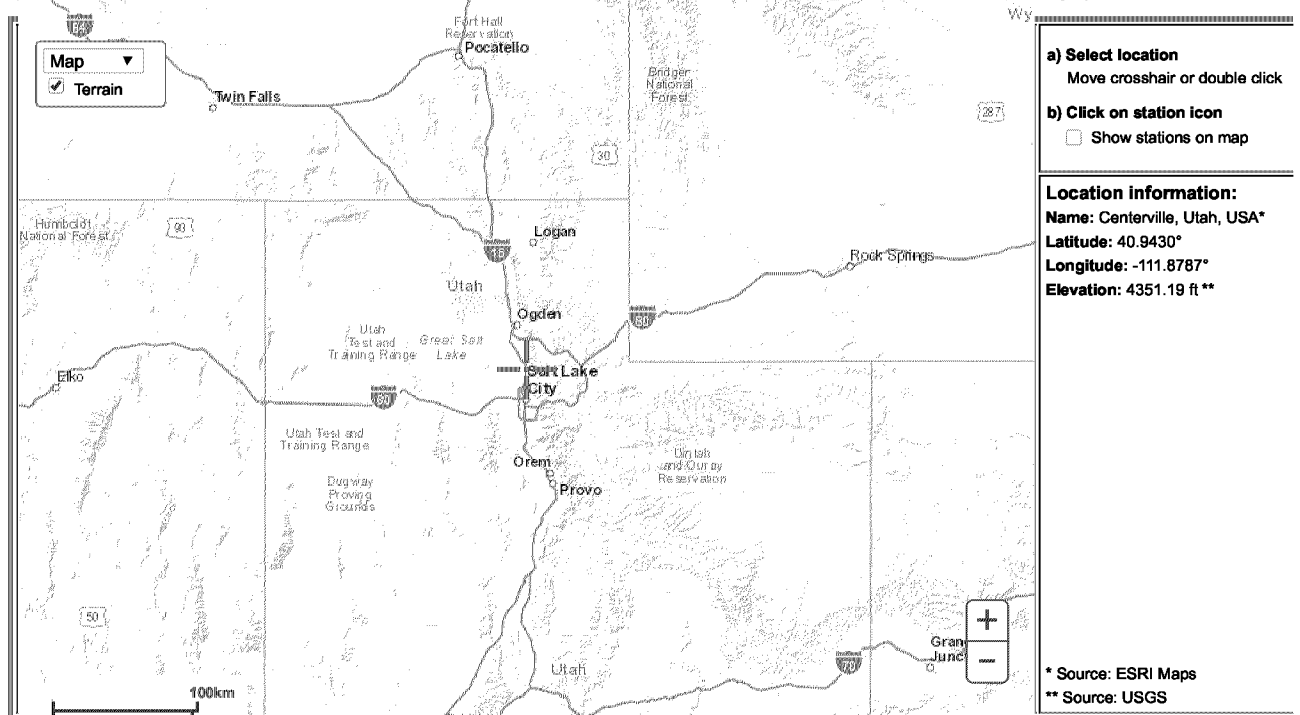
NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATES: UT

Data description

Data type: Units: Time series type:

Select location

1) Manually:

a) By location (decimal degrees, use "-" for S and W): Latitude: Longitude: b) By station (list of UT stations): c) By address 2) Use map (if ESRI interactive map is not loading, try adding the host: <https://is.arcois.com/> to the firewall, or contact us at hdsc.questions@noaa.gov):

POINT PRECIPITATION FREQUENCY (PF) ESTIMATES

WITH 90% CONFIDENCE INTERVALS AND SUPPLEMENTARY INFORMATION

NOAA Atlas 14, Volume 1, Version 5

[PF tabular](#)[PF graphical](#)[Supplementary information](#) [Print page](#)PDS-based precipitation frequency estimates with 90% confidence intervals (in inches)¹

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.148 (0.128-0.176)	0.188 (0.162-0.223)	0.255 (0.219-0.302)	0.316 (0.269-0.376)	0.415 (0.344-0.497)	0.508 (0.409-0.614)	0.616 (0.480-0.752)	0.746 (0.559-0.928)	0.956 (0.678-1.22)	1.15 (0.779-1.51)
10-min	0.226 (0.195-0.268)	0.286 (0.247-0.339)	0.389 (0.333-0.460)	0.482 (0.409-0.572)	0.632 (0.524-0.757)	0.773 (0.622-0.934)	0.938 (0.731-1.14)	1.13 (0.850-1.41)	1.45 (1.03-1.86)	1.76 (1.19-2.31)
15-min	0.280 (0.241-0.332)	0.354 (0.306-0.421)	0.482 (0.413-0.570)	0.596 (0.507-0.709)	0.783 (0.649-0.938)	0.958 (0.771-1.16)	1.16 (0.906-1.42)	1.41 (1.05-1.75)	1.80 (1.28-2.31)	2.18 (1.47-2.86)
30-min	0.377 (0.325-0.447)	0.477 (0.412-0.566)	0.648 (0.557-0.768)	0.803 (0.682-0.954)	1.06 (0.874-1.26)	1.29 (1.04-1.56)	1.57 (1.22-1.91)	1.89 (1.42-2.36)	2.43 (1.72-3.11)	2.93 (1.98-3.85)
60-min	0.467 (0.402-0.553)	0.590 (0.510-0.701)	0.802 (0.689-0.950)	0.994 (0.844-1.18)	1.31 (1.08-1.56)	1.60 (1.29-1.93)	1.94 (1.51-2.36)	2.34 (1.76-2.92)	3.00 (2.13-3.85)	3.63 (2.45-4.76)
2-hr	0.617 (0.543-0.711)	0.770 (0.679-0.892)	0.993 (0.869-1.15)	1.21 (1.04-1.40)	1.55 (1.31-1.82)	1.87 (1.54-2.21)	2.25 (1.80-2.69)	2.70 (2.07-3.30)	3.43 (2.49-4.30)	4.11 (2.85-5.29)
3-hr	0.717 (0.641-0.815)	0.885 (0.792-1.01)	1.10 (0.978-1.26)	1.31 (1.15-1.49)	1.65 (1.42-1.90)	1.96 (1.65-2.27)	2.33 (1.92-2.75)	2.78 (2.21-3.33)	3.51 (2.66-4.32)	4.18 (3.05-5.34)
6-hr	0.945 (0.864-1.04)	1.16 (1.06-1.28)	1.39 (1.26-1.54)	1.60 (1.45-1.78)	1.93 (1.72-2.15)	2.20 (1.93-2.47)	2.53 (2.19-2.88)	2.93 (2.47-3.38)	3.66 (2.98-4.35)	4.31 (3.42-5.39)
12-hr	1.21	1.48	1.78	2.05	2.45	2.77	3.13	3.51	4.16	4.71

	(1.10-1.34)	(1.35-1.64)	(1.62-1.97)	(1.85-2.27)	(2.18-2.73)	(2.44-3.12)	(2.70-3.56)	(2.97-4.05)	(3.42-4.91)	(3.77-5.66)
24-hr	1.57 (1.44-1.70)	1.92 (1.77-2.09)	2.29 (2.10-2.50)	2.61 (2.39-2.84)	3.04 (2.78-3.31)	3.38 (3.07-3.68)	3.72 (3.37-4.06)	4.07 (3.67-4.45)	4.55 (4.07-5.00)	4.92 (4.36-5.72)
2-day	1.85 (1.71-2.01)	2.27 (2.09-2.47)	2.72 (2.50-2.96)	3.09 (2.84-3.37)	3.60 (3.30-3.92)	3.99 (3.64-4.35)	4.39 (3.98-4.80)	4.81 (4.33-5.26)	5.35 (4.78-5.89)	5.77 (5.12-6.38)
3-day	2.06 (1.90-2.25)	2.53 (2.33-2.77)	3.05 (2.80-3.33)	3.48 (3.19-3.80)	4.07 (3.72-4.45)	4.53 (4.12-4.96)	5.01 (4.52-5.49)	5.50 (4.93-6.04)	6.16 (5.47-6.79)	6.67 (5.88-7.39)
4-day	2.28 (2.09-2.49)	2.80 (2.57-3.06)	3.38 (3.10-3.71)	3.87 (3.54-4.24)	4.54 (4.14-4.97)	5.07 (4.60-5.56)	5.62 (5.06-6.18)	6.19 (5.53-6.81)	6.96 (6.16-7.70)	7.56 (6.64-8.40)
7-day	2.82 (2.60-3.06)	3.47 (3.21-3.78)	4.19 (3.86-4.56)	4.79 (4.40-5.21)	5.61 (5.13-6.11)	6.26 (5.69-6.83)	6.93 (6.26-7.58)	7.61 (6.83-8.35)	8.54 (7.59-9.42)	9.26 (8.16-10.3)
10-day	3.23 (2.98-3.50)	3.98 (3.67-4.31)	4.76 (4.39-5.16)	5.40 (4.97-5.85)	6.25 (5.73-6.77)	6.89 (6.28-7.47)	7.53 (6.84-8.19)	8.18 (7.38-8.91)	9.02 (8.08-9.87)	9.66 (8.60-10.6)
20-day	4.34 (4.01-4.69)	5.34 (4.94-5.78)	6.35 (5.87-6.87)	7.12 (6.58-7.71)	8.12 (7.47-8.78)	8.84 (8.12-9.57)	9.56 (8.75-10.4)	10.2 (9.34-11.1)	11.1 (10.1-12.1)	11.8 (10.6-12.9)
30-day	5.38 (5.00-5.78)	6.61 (6.14-7.11)	7.80 (7.24-8.40)	8.73 (8.09-9.40)	9.93 (9.18-10.7)	10.8 (9.97-11.7)	11.7 (10.7-12.6)	12.5 (11.4-13.5)	13.5 (12.3-14.7)	14.3 (12.9-15.6)
45-day	6.76 (6.27-7.27)	8.29 (7.69-8.94)	9.77 (9.05-10.5)	10.9 (10.1-11.8)	12.5 (11.5-13.4)	13.6 (12.5-14.7)	14.7 (13.5-15.9)	15.8 (14.4-17.1)	17.2 (15.6-18.7)	18.2 (16.4-19.9)
60-day	8.01 (7.42-8.63)	9.83 (9.11-10.6)	11.6 (10.7-12.5)	12.9 (12.0-13.9)	14.7 (13.5-15.8)	15.9 (14.7-17.2)	17.1 (15.7-18.6)	18.3 (16.7-19.9)	19.8 (18.0-21.6)	20.9 (18.9-22.9)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Estimates from the table in CSV format: [Precipitation frequency estimates](#)

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US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
Office of Water Prediction (OWP)
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Page Author: HDSC webmaster
Page last modified: April 21, 2017

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Rigby Court Lot 4
Jennings Lane, Centerville

by Scott Balling
4/3/2018

25 year Storm Event

Area 0.30 acres

Coefficient of Runoff © 0.75

Outflow = 0.20cfs/ac 0.0593 cfs

Time (t) (Min)	Rainfall (inches)	Rainfall Intensity (in/hr)	Inflow Q=CiA (cfs)	Total Inflow (cu.ft.)	Outflow (cu.ft.)	Detention Volume (cu.ft.)
5	0.415	4.98	1.11	332	18	314
10	0.632	3.79	0.84	506	36	470
15	0.483	1.93	0.43	387	53	333
20	0.680	2.04	0.45	544	71	473
30	1.060	2.12	0.47	848	107	742
40	1.150	1.73	0.38	920	142	778
50	1.230	1.48	0.33	984	178	806
60	1.310	1.31	0.29	1,048	213	835
90	1.430	0.95	0.21	1,144	320	824
120	1.550	0.78	0.17	1,240	427	813

Required Volume = 9,200 cu. ft. (70 X44 X 3ft deep)

Required Volume = 142 cu.ft.

**CENTERVILLE
PLANNING COMMISSION
Staff Backup Report
4/25/2018**

Item No. 3.

Short Title: Planning Commission Decision Matrix -- Administrative Procedures

Initiated By: Planning Commission & Staff

Scheduled Time: 7:50

SUBJECT

DISCUSSION

Staff and Commission will discuss administrative procedures, State requirements, and discuss possible amendments to procedures on the City level.

RECOMMENDATION

BACKGROUND

CENTERVILLE

**Staff Backup Report
4/25/2018**

Item No.

Short Title: April 11th, 2018

Initiated By:

Scheduled Time:

SUBJECT

RECOMMENDATION

BACKGROUND