

FLOOD PLAIN NOTE
 THE CURRENT FEMA FLOOD INSURANCE RATE MAP (FIRM) FOR THIS AREA, MAP NUMBER 04013C 1760L (EFFECTIVE REVISED DATE OCTOBER 16, 2023), DESIGNATES THE PROPERTY WITHIN FLOOD HAZARD ZONE X.

PRE-DEVELOPED:
 OVERALL PARCEL SIZE: 3 AC
 PERVIOUS COVER: 5,359 SF
 IMPERVIOUS COVER: 14,940 SF

Hydrology Report

Hydroflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Wednesday, Nov 3 2021

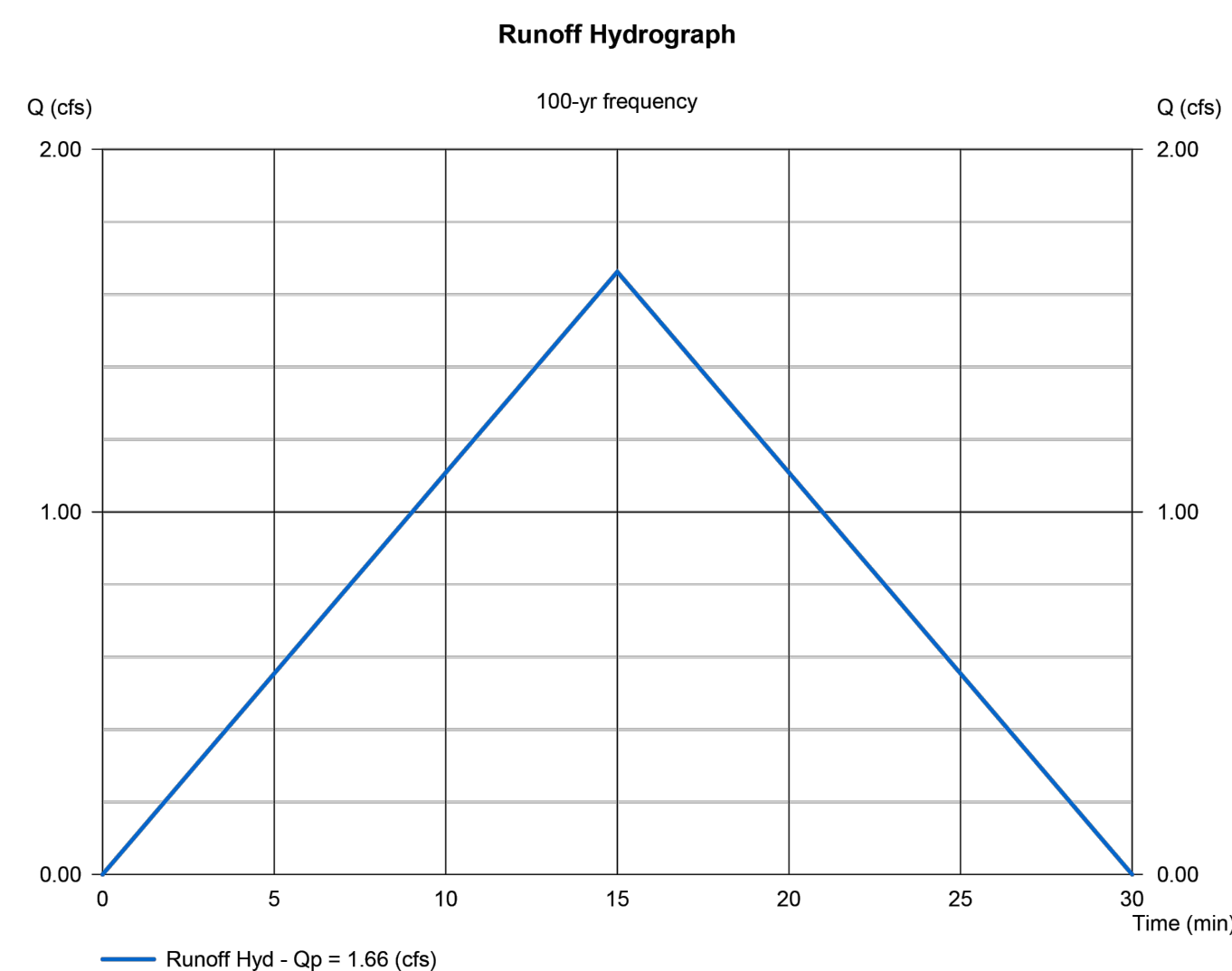
PRE-DEVELOPED CONDITION 100YR

Hydrograph type = Rational
 Storm frequency (yrs) = 100
 Drainage area (ac) = 0.470
 Rainfall Inten (in/hr) = 4.780
 IDF Curve = scottsdale.IDF

Peak discharge (cfs) = 1.662
 Time interval (min) = 1
 Runoff coeff. (C) = 0.74
 Tc by User (min) = 15
 Rec limb factor = 1.00

Hydrograph Volume = 1.496 (cuft), 0.034 (act)

WEIGHTED "C" VALUE: 14,940 SF (IMPERVIOUS COVER) = 0.74
 20,299 SF (TOTAL SITE AREA)



NOAA Atlas 14, Volume 1, Version 5
 Location name: Scottsdale, Arizona, USA*
 Latitude: 33.5722°, Longitude: -111.8876°
 Elevation: 1351.4 ft*
 *source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES
 Sanja Perica, Sarah Dietz, Sarah Heim, Lilian Hino, Kazungu Maliana, Deborah Martin, Sandra Pielonik, Isahak Roy, Carl Topylak, Dale Ulrich, Fenglin Yan, Nicholas Yelton, Sam Zhao, Geoffrey Bowers, Daniel Brewer, Li-Chuan Chen, Yixi Puzrobok, John Vardanian
 NOAA, National Weather Service, Silver Spring, Maryland
 PF tabular | PF graphical | Maps & aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)¹

Duration	1	2	5	10	25	50	100	200	500	1000
5-min	2.23 (1.86-2.75)	2.92 (2.44-3.39)	3.95 (3.24-4.84)	4.75 (3.91-5.90)	5.82 (4.72-7.07)	6.65 (5.33-8.03)	7.30 (5.89-9.04)	8.35 (6.46-10.0)	9.52 (7.16-11.4)	10.4 (7.87-12.5)
10-min	1.70 (1.42-2.09)	2.22 (1.86-2.73)	3.01 (2.49-3.68)	3.61 (2.98-4.40)	4.43 (3.59-5.38)	5.06 (4.05-6.10)	5.71 (4.47-7.48)	6.56 (4.91-8.64)	7.24 (5.45-9.31)	7.91 (6.04-10.3)
15-min	1.44 (1.17-1.73)	1.84 (1.54-2.26)	2.49 (2.02-3.04)	2.99 (2.45-3.64)	3.66 (2.97-4.45)	4.18 (3.35-5.09)	4.78 (3.71-6.08)	5.28 (4.06-6.92)	5.98 (4.51-7.99)	6.54 (4.92-8.89)
30-min	0.948 (0.786-1.16)	1.24 (1.03-1.52)	1.67 (1.39-2.05)	2.01 (1.68-2.45)	2.47 (2.00-3.00)	2.81 (2.25-3.40)	3.17 (2.50-3.83)	3.54 (2.74-4.25)	4.03 (3.04-5.30)	4.40 (3.25-5.30)
60-min	0.586 (0.497-0.700)	0.765 (0.640-0.940)	1.04 (0.858-1.27)	1.24 (1.01-1.52)	1.53 (1.24-1.89)	1.74 (1.40-2.10)	1.97 (1.58-2.37)	2.19 (1.69-2.93)	2.49 (1.88-3.00)	2.72 (2.01-3.29)
2-hr	0.344 (0.289-0.411)	0.444 (0.376-0.534)	0.592 (0.498-0.708)	0.705 (0.586-0.842)	0.860 (0.704-1.02)	0.978 (0.794-1.16)	1.10 (0.878-1.30)	1.22 (0.960-1.44)	1.39 (1.07-1.84)	1.52 (1.14-1.95)
3-hr	0.284 (0.214-0.311)	0.325 (0.273-0.400)	0.426 (0.358-0.502)	0.505 (0.420-0.613)	0.617 (0.505-0.743)	0.706 (0.570-0.846)	0.798 (0.633-0.956)	0.895 (0.698-1.07)	1.03 (0.778-1.23)	1.13 (0.839-1.36)
6-hr	0.153 (0.132-0.182)	0.194 (0.166-0.230)	0.247 (0.211-0.292)	0.291 (0.246-0.342)	0.349 (0.292-0.406)	0.395 (0.325-0.481)	0.442 (0.361-0.573)	0.491 (0.391-0.617)	0.557 (0.432-0.680)	0.610 (0.462-0.715)
12-hr	0.084 (0.073-0.099)	0.106 (0.092-0.125)	0.134 (0.116-0.157)	0.156 (0.134-0.182)	0.186 (0.157-0.216)	0.209 (0.174-0.242)	0.232 (0.191-0.269)	0.256 (0.208-0.296)	0.289 (0.228-0.335)	0.312 (0.243-0.366)
24-hr	0.049 (0.044-0.057)	0.063 (0.055-0.072)	0.081 (0.071-0.093)	0.095 (0.084-0.103)	0.116 (0.101-0.130)	0.131 (0.114-0.150)	0.148 (0.129-0.169)	0.165 (0.140-0.189)	0.189 (0.159-0.219)	0.207 (0.172-0.238)
2-day	0.027 (0.023-0.031)	0.034 (0.030-0.039)	0.044 (0.039-0.051)	0.053 (0.048-0.060)	0.064 (0.056-0.074)	0.074 (0.063-0.084)	0.083 (0.070-0.095)	0.093 (0.079-0.107)	0.107 (0.090-0.123)	0.119 (0.098-0.137)
3-day	0.019 (0.017-0.022)	0.024 (0.021-0.028)	0.032 (0.028-0.036)	0.038 (0.034-0.043)	0.047 (0.042-0.050)	0.055 (0.049-0.059)	0.061 (0.054-0.069)	0.068 (0.061-0.078)	0.079 (0.069-0.090)	0.088 (0.074-0.101)
4-day	0.015 (0.013-0.017)	0.019 (0.017-0.022)	0.026 (0.022-0.029)	0.031 (0.027-0.035)	0.038 (0.033-0.043)	0.043 (0.038-0.049)	0.049 (0.043-0.056)	0.056 (0.048-0.064)	0.065 (0.055-0.074)	0.073 (0.060-0.083)
7-day	0.010 (0.009-0.011)	0.012 (0.011-0.014)	0.016 (0.014-0.019)	0.020 (0.018-0.021)	0.024 (0.021-0.026)	0.028 (0.024-0.032)	0.032 (0.028-0.036)	0.036 (0.032-0.041)	0.042 (0.036-0.048)	0.047 (0.039-0.055)
10-day	0.007 (0.006-0.008)	0.009 (0.008-0.011)	0.012 (0.011-0.014)	0.015 (0.013-0.017)	0.018 (0.016-0.021)	0.021 (0.019-0.024)	0.024 (0.020-0.027)	0.028 (0.023-0.030)	0.031 (0.026-0.035)	0.034 (0.029-0.039)
20-day	0.005 (0.004-0.005)	0.006 (0.005-0.007)	0.008 (0.007-0.009)	0.009 (0.008-0.010)	0.011 (0.010-0.012)	0.012 (0.011-0.014)	0.014 (0.013-0.016)	0.015 (0.013-0.018)	0.017 (0.015-0.020)	0.019 (0.016-0.022)
30-day	0.004 (0.003-0.004)	0.005 (0.004-0.005)	0.006 (0.005-0.006)	0.007 (0.006-0.007)	0.009 (0.008-0.009)	0.010 (0.009-0.011)	0.011 (0.010-0.012)	0.012 (0.011-0.014)	0.014 (0.012-0.016)	0.015 (0.013-0.017)
45-day	0.003 (0.002-0.003)	0.004 (0.003-0.004)	0.005 (0.004-0.005)	0.006 (0.005-0.006)	0.007 (0.006-0.007)	0.008 (0.007-0.009)	0.009 (0.008-0.010)	0.010 (0.009-0.011)	0.011 (0.009-0.012)	0.011 (0.009-0.012)
60-day	0.002 (0.002-0.003)	0.003 (0.002-0.003)	0.004 (0.003-0.004)	0.004 (0.003-0.004)	0.005 (0.004-0.005)	0.006 (0.005-0.007)	0.007 (0.006-0.008)	0.008 (0.006-0.009)	0.008 (0.007-0.009)	0.009 (0.008-0.010)

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PF graphical

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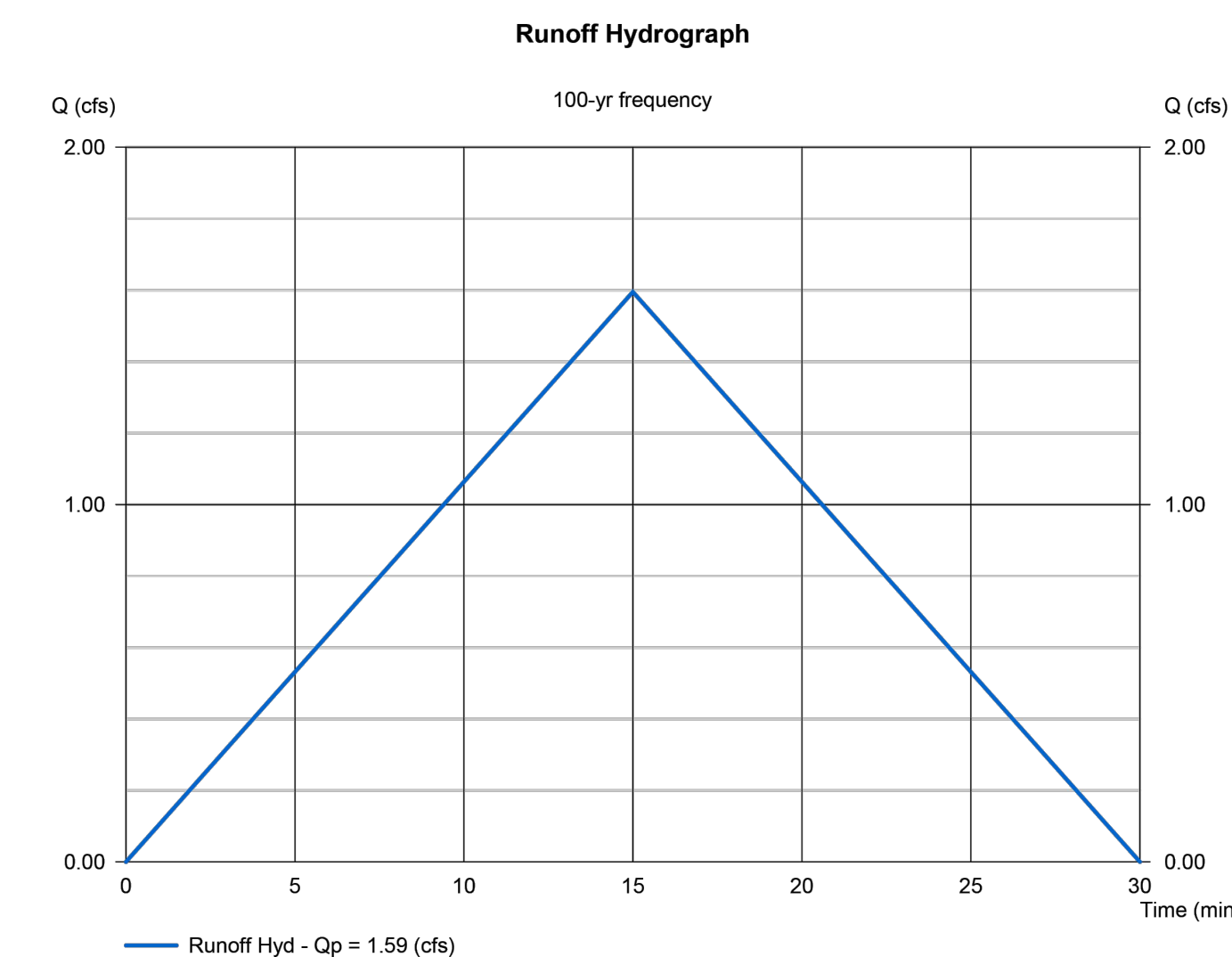
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Hydrograph Volume = 1.435 (cuft), 0.033 (act)

WEIGHTED "C" VALUE: 14,476 SF (IMPERVIOUS COVER) = 0.71
 20,299 SF (TOTAL SITE AREA)



DESIGNED BY: 243 E. 3rd Street
 DRAWN BY: Long Beach, CA 90802
 CHECKED BY:
 SUBMITTED BY:

DATE: 1/30/23

MARK DESCRIPTION

DATE

SDC
 SITE DESIGN COLLABORATIVE
 JOB NO.: 202108170

tropical smoothie CAFE
 E. SAN VICTOR DR. & N. 90TH ST.
 SCOTTSDALE, AZ 85256

DRAINAGE PLAN

SHEET NO.
C-209