

PREPARED BY JRM	DATE PREPARED 5/24	LBM Engineering, LLC 11 HALLY LANE COLCHESTER, CONNECTICUT 06415 TEL: (860)-416-9809 EMAIL: JOHN@LBMENGINEERING.COM	JOB NUMBER	PAGE NUMBER 2
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AREA C

TOTAL 83,740 SF = 1.92 ACERS

6 HOUSES $\times 0.02 = 0.12$ ACERS

O'LAND	1.80	$\times 0.21 =$	0.378
ROOF	0.12	$\times 0.86 =$	0.103
	<u>1.92</u>		<u>0.481</u>

WEIGHTED 'C'

$0.481 / 1.92 = 0.251$

AREA D (TO RETENTION BASIN 2)

TOTAL 43,020 = 0.99 ACERS

3 HOUSES $3 \times 0.02 = 0.06$ ACERS

10,600 SF PAVEMENT = 0.243 ACERS

O'LAND	0.69	$\times 0.21 =$	0.145
ROOF	0.06	$\times 0.86 =$	0.052
PAVT	0.24	$\times 0.95 =$	0.228
	<u>0.99</u>		<u>0.425</u>

$0.425 / 0.99 = 0.429$

AREA E

TOTAL 17,680 SF = 0.41 ACERS

1 HOUSE 0.02 ACERS

O'LAND	0.39	$\times 0.21 =$	0.082
ROOF	0.02	$\times 0.86 =$	0.017
	<u>0.41</u>		<u>0.099</u>

$0.099 / 0.41 = 0.242$

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AREA F

TOTAL 21,620 SF = 0.50 ACERS

1 HOUSE = 0.02 ACERS

0'LAND 0.48 x 0.21 = 0.101

ROOF $\frac{0.02}{0.50} \times 0.86 = \frac{0.017}{0.118}$

$0.118 / 0.50 = 0.236$

AREA G

TOTAL 54,165 SF = 1.243 ACERS

4 HOUSES = 0.08 ACERS

0'LAND 1.163 x 0.21 = 0.244

ROOF $\frac{0.08}{1.243} \times 0.86 = \frac{0.069}{0.313}$

$0.313 / 1.243 = 0.252$

DESIGNED BY: JRM DATE: 06/17/24
 REV: DATE:

CHECKED BY:

PROJECT: AVERY BROOK HOMES LLC
 PROJECT NO.:
 CITY: LEDYARD
 ROUTE:
 LOCATION: N/A

GUTTER FLOW ANALYSIS - 25 YR STORM

Inlet ID	Inlet Station and Offset	Area in Acres (A)	Runoff Coeff. (C)	Time to Inlet (min.)	Rainfall Intensity (in/hr)	AC	Total AC	Q to Inlet (cfs)	Grade of Gutter f/ft (SL)	Cross Slope Of Shoulder f/ft (Sx)	Depth of Flow of Gutter (ft)	Gutter Flow Width (ft)	Q Bypassing Inlet (cfs)	AC Bypassing Inlet	AC Entering Catch Basin	Inlet Type
AVERY COURT LEFT GUTTER																
CB 1	10+10, LT	0.850	0.318	10	5.50	0.270	0.270	1.487	LOW PT	0.045	#VALUE!	#VALUE!	#VALUE!	0.270	0.270	"C"
AVERY COURT RIGHT GUTTER																
CB 2	10+10, RT	0.070	0.950	10	5.50	0.067	0.067	0.366	LOW PT	0.045	#VALUE!	#VALUE!	#VALUE!	0.067	0.067	"C"
CB 3	14+50, RT	0.990	0.429	10	5.50	0.425	0.425	2.336	LOW PT	0.045	#VALUE!	#VALUE!	#VALUE!	0.425	0.425	"C"
LOW POINT ANALYSIS																
INLET	Q TO INLET	PERIM.	C WEIR	d WEIR	WIDTH	WEIR COEF	CFS									
CB 1	1.487	5.020	3.0	0.217	4.83	3.0	1.5									
CB 2	0.366	5.020	3.0	0.085	1.90											
CB 3	2.336	5.020	3.0	0.378	8.40											
WIDE FLOW AT CB 1 IS OFFSET. BY NARROW FLOW AT CB2. 15 FT OF ROAD IS CLEAR.																

GRATES	PERIM	AREA
C	5.02	3.13
C DOUB	7.33	6.26
CL	7.33	3.13
CL DOUB	11.96	6.26

- Notes:
- Manning's n = 0.016 (asphalt).
 - Tc = 5 minutes minimum for areas with all pavement.
 - Tc = 10 minutes minimum for small areas with pavement and grass.
 - All low points operate as a weir. Depth (d) over grate is less than 0.4 feet.

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PRE VS. POST PEAK RATE OF RUNOFF COMPARISON 100 YR RAINFALL - C OVERLAND 0.21 - 10 MINUTE T_c - $I = 6.5$ "/HR

AREA A PRE 0.38 ACRES $\times 0.21 \times 6.5 = 0.52$ CFS
 POST 0.31 $\times 0.21 \times 6.5 = 0.42$ CFS

AREA B PRE 0.85 ACRES $\times 0.21 \times 6.5 = 1.16$ CFS
 POST FLOWS TO RETENTION AREA 1
 100-YR INFLOW 2.10 CFS / OUTFLOW = 0.38 CFS

AREA C PRE 1.92 AC $\times 0.21 \times 6.5 = 2.62$ CFS
 POST 1.92 $\times 0.25 \times 6.5 = 3.02$ CFS

AREA D PRE 0.99 ACRES $\times 0.21 \times 6.5 = 1.35$ CFS
 POST TO RETENTION AREA 2
 100 YR INFLOW 2.63 CFS / OUTFLOW = 1.34 CFS

AREA E PRE 0.41 ACRES $\times 0.21 \times 6.5 = 0.56$ CFS
 POST 0.41 $\times 0.24 \times 6.5 = 0.64$ CFS

AREA F PRE 0.50 ACRES $\times 0.21 \times 6.5 = 0.68$ CFS
 POST 0.50 $\times 0.23 \times 6.5 = 0.74$ CFS

AREA G PRE 1.24 ACRES $\times 0.21 \times 6.5 = 1.69$ CFS
 POST 1.24 $\times 0.25 \times 6.5 = 2.01$ CFS

PEAK OFF

PROPERTY A + B + C + D + E + F + G

PRE $0.52 + 1.16 + 2.62 + 1.35 + 0.56 + 0.68 + 1.69 = 8.50$ CFS

POST $0.42 + 0.38 + 3.02 + 1.34 + 0.64 + 0.74 + 2.01 = 8.55$ CFS

CONCLUSION: THE PROPOSED DEVELOPMENT WILL NOT INCREASE THE PEAK FLOW RATE OFF THE PROPERTY

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PEAK RATE OF RUNOFF Q2-YR ≠ Q5-YR

		AREA C	AC	I 2-YR	Q2YR	I 5-YR	Q5YR
AREA A	PRE	0.38 x 0.21	0.08	3.6	0.29 CFS	4.3	0.34
	POST	0.31 x 0.21	0.07	3.6	0.25	4.3	0.30
AREA B	PRE	0.85 x 0.21	0.179	3.6	0.64	4.3	0.77
	POST	RET. AREA 1 NO OUTFLOW			0	4.3	0
AREA C	PRE	1.92 x 0.21 =	0.403	3.6	1.45	4.3	1.73
	POST	1.92 x 0.25 =	0.48	3.6	1.73	4.3	2.06
AREA D	PRE	0.99 AC x 0.21 =	0.208	3.6	0.75	4.3	0.89
	POST	TO RET. AREA 2 NO OUTFLOW			0	4.3	0
AREA E	PRE	0.41 x 0.21 =	0.086	3.6	0.31	4.3	0.37
	POST	0.41 x 0.24 =	0.098	3.6	0.35	4.3	0.42
AREA F	PRE	0.50 x 0.21 =	0.105	3.6	0.38	4.3	0.45
	POST	0.50 x 0.23 =	0.115	3.6	0.41	4.3	0.50
AREA G	PRE	1.24 x 0.21 =	0.26	3.6	0.94	4.3	1.12
	POST	1.24 x 0.25 =	0.31	3.6	1.12	4.3	1.33
					Q2-YR		Q5-YR
					4.76 CFS		5.67 CFS
					3.86 CFS		4.61 CFS

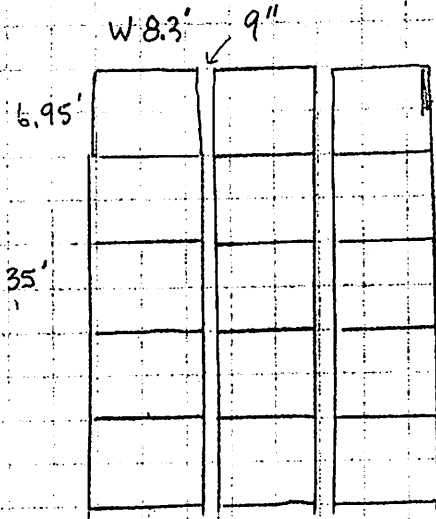
PREPARED BY JEM	DATE PREPARED 6/2024	LBM Engineering, LLC 11 HALLY LANE COLCHESTER, CONNECTICUT 06415 TEL: (860)-416-9809 EMAIL: JOHN@LBMENGINEERING.COM	JOB NUMBER	PAGE NUMBER 6B
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PEAK RATE OF RUNOFF Q10-YR ≠ Q25-YR

		A x C	I10-YR	CFS		I25-YR	CFS	
				Q10-YR	Q25-YR		Q10-YR	Q25-YR
AREA A	PRE	0.08	4.8"/HR	0.38		5.5"/HR	0.44	
	POST	0.07	4.8	0.34		5.5	0.39	
AREA B	PRE	0.179	4.8	0.86		5.5	0.99	
	POST	RET.#1	4.8	0		5.5	0	
AREA C	PRE	0.403	4.8	1.93		5.5	2.22	
	POST	0.48	4.8	2.30		5.5	2.64	
AREA D	PRE	0.208	4.8	1.00		5.5	1.14	
	POST	RET.#2	4.8	0		5.5	0.33	
AREA E	PRE	0.086	4.8	0.41		5.5	0.47	
	POST	0.098	4.8	0.47		5.5	0.54	
AREA F	PRE	0.105	4.8	0.50		5.5	0.58	
	POST	0.115	4.8	0.55		5.5	0.63	
AREA G	PRE	0.26	4.8	1.25		5.5	1.43	
	POST	0.31	4.8	1.49		5.5	1.70	
				Q10-YR			Q25-YR	
SUM PRE				6.33 CFS			7.27 CFS	
SUM POST				5.15 CFS			6.23 CFS	

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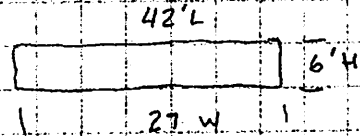
STORMTECH UNDERGROUND RETENTION/INFILTRATION AREAS



INSTALLED STORAGE
 267 FT³ / CHAMBER
 267 x 15 = 4005

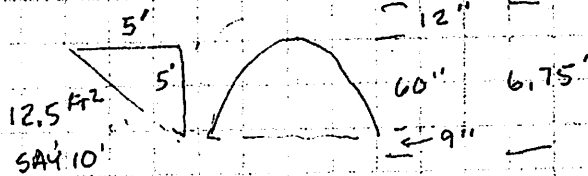
TOTAL 4005 + 245 = 4250 FT³ STORAGE

15 STORMTECH MC 7200



TOTAL VOL. 35 x 27 x 6 = 5670

4250 / 5670 = 75% VOIDS



267 FT³ EACH INSTALLED CHAMBER

10' x 35' EACH SIDE

10' x 35' x 2 = 700 FT³ x 35% VOIDS = 245 FT³

4250 / 6 = 708.3' PER FT OF DEPTH

INSPECTION PORT INLET
STORMTECH CHAMBER SYSTEM

DATE: 11/14/23
DRAWN: JLM
CHECKED: CJD

PROJECT #:

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DESCRIBED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.

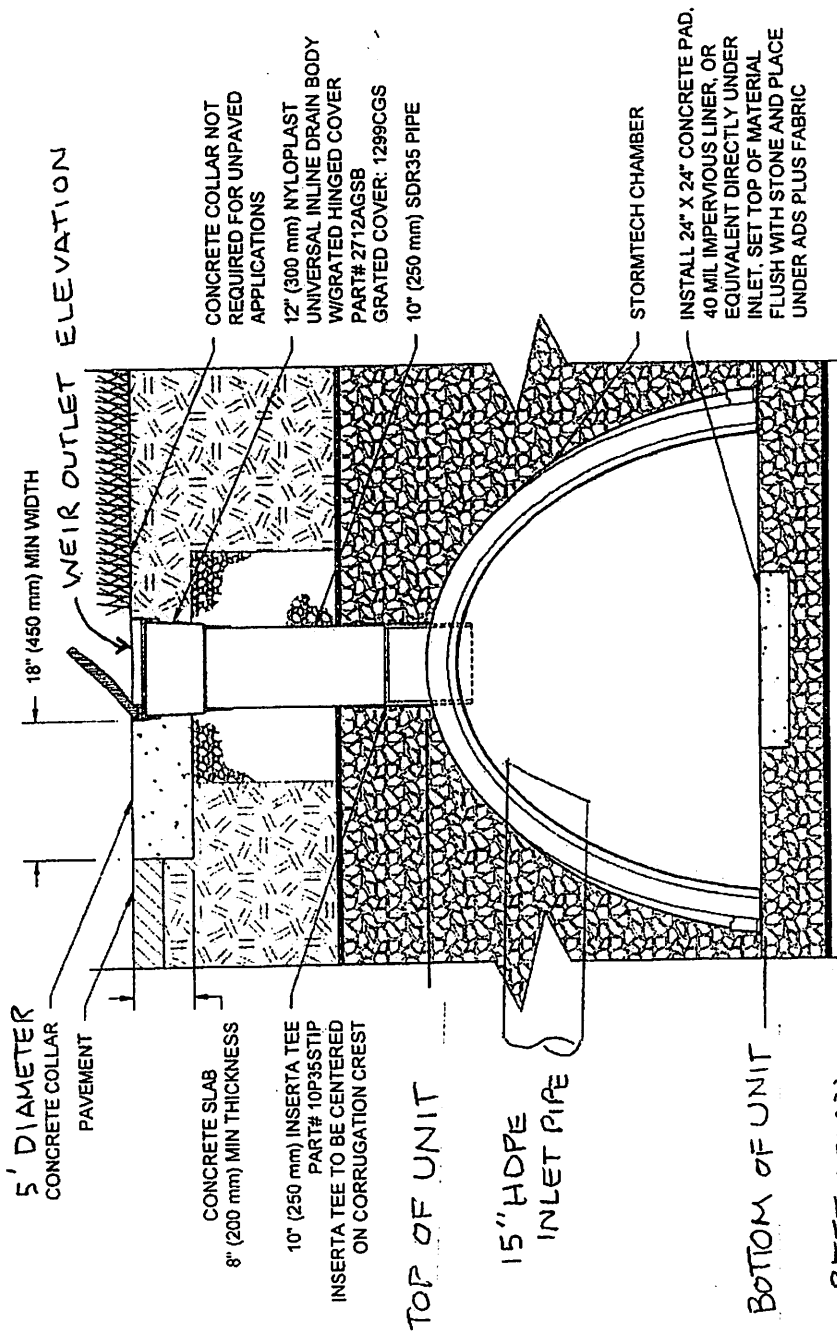
4640 TRUEMAN BLVD
HILLIARD, OH 43026



StormTech®
Chamber System
888-892-2694
WWW.STORMTECH.COM

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8.8



INSPECTION PORT INLET DETAIL

NTS

RETENTION

	AREA 1	AREA 2	10" (250 mm) INSPECTION PORT INLET DETAIL
OUTLET EL.	147.0	155.0	
INLET EL	141.5	149.5	
TOP	144.0	152.0	
BOTTOM	139.0	147.0	

5' DIAMETER
CONCRETE COLLAR

PAVEMENT

CONCRETE SLAB
8" (200 mm) MIN THICKNESS

10" (250 mm) INSERTA TEE
PART# 10P3SSTIP
INSERTA TEE TO BE CENTERED
ON CORRUGATION CREST

TOP OF UNIT

15" HDPE
INLET PIPE

BOTTOM OF UNIT

18" (450 mm) MIN WIDTH

WEIR OUTLET ELEVATION

CONCRETE COLLAR NOT
REQUIRED FOR UNPAVED
APPLICATIONS

12" (300 mm) NYLOPLAST
UNIVERSAL INLINE DRAIN BODY
W/GRADED HINGED COVER
PART# 2712AGSB
GRADED COVER: 1299CGS
10" (250 mm) SDR35 PIPE

STORMTECH CHAMBER

INSTALL 24" X 24" CONCRETE PAD,
40 MIL IMPERVIOUS LINER, OR
EQUIVALENT DIRECTLY UNDER
INLET. SET TOP OF MATERIAL
FLUSH WITH STONE AND PLACE
UNDER ADS PLUS FABRIC

Appendix B - Rainfall**RAINFALL – DURATION – FREQUENCY
RELATIONSHIPS FOR CONNECTICUT**

DURATION	RETURN FREQUENCY (Years)					
	2	5	10	25	50	100
Min	RAINFALL IN MM (INCHES)					
5	9.1(0.36)	11.4(0.45)	13.0(0.51)	15.2(0.60)	17.2(0.67)	18.5(0.73)
15	18.3(0.72)	22.6(0.89)	25.9(1.02)	30.5(1.20)	34.0(1.34)	37.6(1.48)
60	33.0(1.3)	43.2(1.7)	50.8(2.00)	58.4(2.30)	65.3(2.57)	71.1(2.80)
Hrs						
2	40.6(1.60)	54.6(2.15)	63.5(2.50)	72.4(2.85)	82.6(3.25)	91.4(3.60)
3	44.5(1.75)	61.0(2.40)	69.9(2.75)	82.6(3.25)	90.2(3.55)	101.6(4.00)
6	59.7(2.35)	74.9(2.95)	87.6(3.45)	101.6(4.00)	115.6(4.55)	127.0(5.00)
12	69.9(2.75)	90.2(3.55)	101.6(4.00)	123.2(4.85)	135.9(5.35)	152.4(6.00)
24	82.6(3.25)	106.7(4.20)	125.7(4.95)	146.1(5.75)	161.3(6.35)	177.8(7.00)
	24 HOUR RAINFALL BY COUNTY					
Fairfield	83.8(3.3)	109.2(4.3)	127.0(5.0)	144.8(5.7)	162.6(6.4)	182.9(7.2)
Hartford	81.3(3.2)	104.1(4.1)	119.4(4.7)	139.7(5.5)	157.5(6.2)	175.3(6.9)
Litchfield	81.3(3.2)	104.1(4.1)	119.4(4.7)	139.7(5.5)	157.5(6.2)	177.8(7.0)
Middlesex	83.8(3.3)	106.7(4.2)	127.0(5.0)	142.2(5.6)	160.0(6.3)	180.3(7.1)
New Haven	83.8(3.3)	106.7(4.2)	127.0(5.0)	142.2(5.6)	160.0(6.3)	180.3(7.1) ← USE
New London	86.4(3.4)	109.2(4.3)	127.0(5.0)	144.8(5.7)	160.0(6.3)	180.3(7.1)
Tolland	81.3(3.2)	104.1(4.1)	121.9(4.8)	139.7(5.5)	157.5(6.2)	175.3(6.9)
Windham	81.3(3.2)	106.7(4.2)	121.9(4.8)	139.7(5.5)	157.5(6.2)	175.3(6.9)

Sources:

1. "Rainfall Frequency Atlas of the United States", Technical Paper No. 40, U.S. Department of Commerce, Weather Bureau.
2. NOAA Technical Memorandum "NWS Hydro-35", June 1977, U.S. Department of Commerce, National Weather Service.

Table B-1

DURATION (min)	DURATION (hr)	RAINFALL INTENSITY (in/hr)					
		2 Yr	5 Yr	10 Yr	25 Yr	50 Yr	100 Yr
5	0.08	4.6	5.5	6.0	6.7	7.3	7.8
6	0.10	4.4	5.2	5.8	6.5	7.0	7.5
7	0.12	4.2	5.0	5.5	6.2	6.8	7.2
8	0.13	4.0	4.8	5.3	6.0	6.5	7.0
9	0.15	3.8	4.6	5.1	5.7	6.2	6.7
10	0.17	3.6	4.3	4.8	5.5	6.0	6.5
11	0.18	3.4	4.2	4.7	5.3	5.8	6.3
12	0.20	3.3	4.0	4.5	5.1	5.6	6.1
13	0.22	3.1	3.8	4.3	5.0	5.4	5.9
14	0.23	3.0	3.7	4.2	4.8	5.3	5.7
15	0.25	2.8	3.5	4.0	4.6	5.1	5.5
16	0.27	2.8	3.5	3.9	4.5	5.0	5.4
17	0.28	2.7	3.4	3.8	4.4	4.9	5.4
18	0.30	2.7	3.3	3.8	4.4	4.8	5.3
19	0.32	2.6	3.2	3.7	4.3	4.7	5.2
20	0.33	2.5	3.2	3.6	4.2	4.6	5.1
21	0.35	2.5	3.1	3.5	4.1	4.5	5.0
22	0.37	2.4	3.0	3.4	4.0	4.4	4.9
23	0.38	2.3	2.9	3.4	3.9	4.3	4.8
24	0.40	2.3	2.9	3.3	3.8	4.2	4.7
25	0.42	2.2	2.8	3.2	3.7	4.2	4.6
26	0.43	2.2	2.7	3.1	3.7	4.1	4.5
27	0.45	2.1	2.7	3.0	3.6	4.0	4.4
28	0.47	2.0	2.6	3.0	3.5	3.9	4.3
29	0.48	2.0	2.5	2.9	3.4	3.8	4.2
30	0.50	1.9	2.4	2.8	3.3	3.7	4.1

Rainfall Intensity/Duration/Frequency Relationship for Connecticut (English Units)
Table B-2.1

The final element to be factored into the determination of runoff coefficients is the land slope. As the slope of the drainage basin increases, the selected C value should also increase. This is caused by the fact that as the slope of the drainage area increases, the velocity of overland and channel flow will increase allowing less opportunity for water to infiltrate the ground surface. Thus, more of the rainfall will become runoff from the drainage area.

In summary, it should be reiterated that in assigning a value to the runoff coefficient for use in the rational method, the engineer must rely heavily on experience and judgement.

Table 6-3 Recommended Coefficient Of Runoff For Pervious Surfaces By Selected Hydrologic Soil Groupings And Slope Ranges

<u>Slope</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	TYPE A SOIL AVERAGE SLOPE USED 0.21 TO BE CONSERVATIVE
Flat (0 - 1%)	0.04-0.09	0.07-0.12	0.11-0.16	0.15-0.20	
Average (2 - 6%)	0.09-0.14 USE 0.21	0.12-0.17	0.16-0.21	0.20-0.25	
Steep (Over 6%)	0.13-0.18	0.18-0.24	0.23-0.31	0.28-0.38	

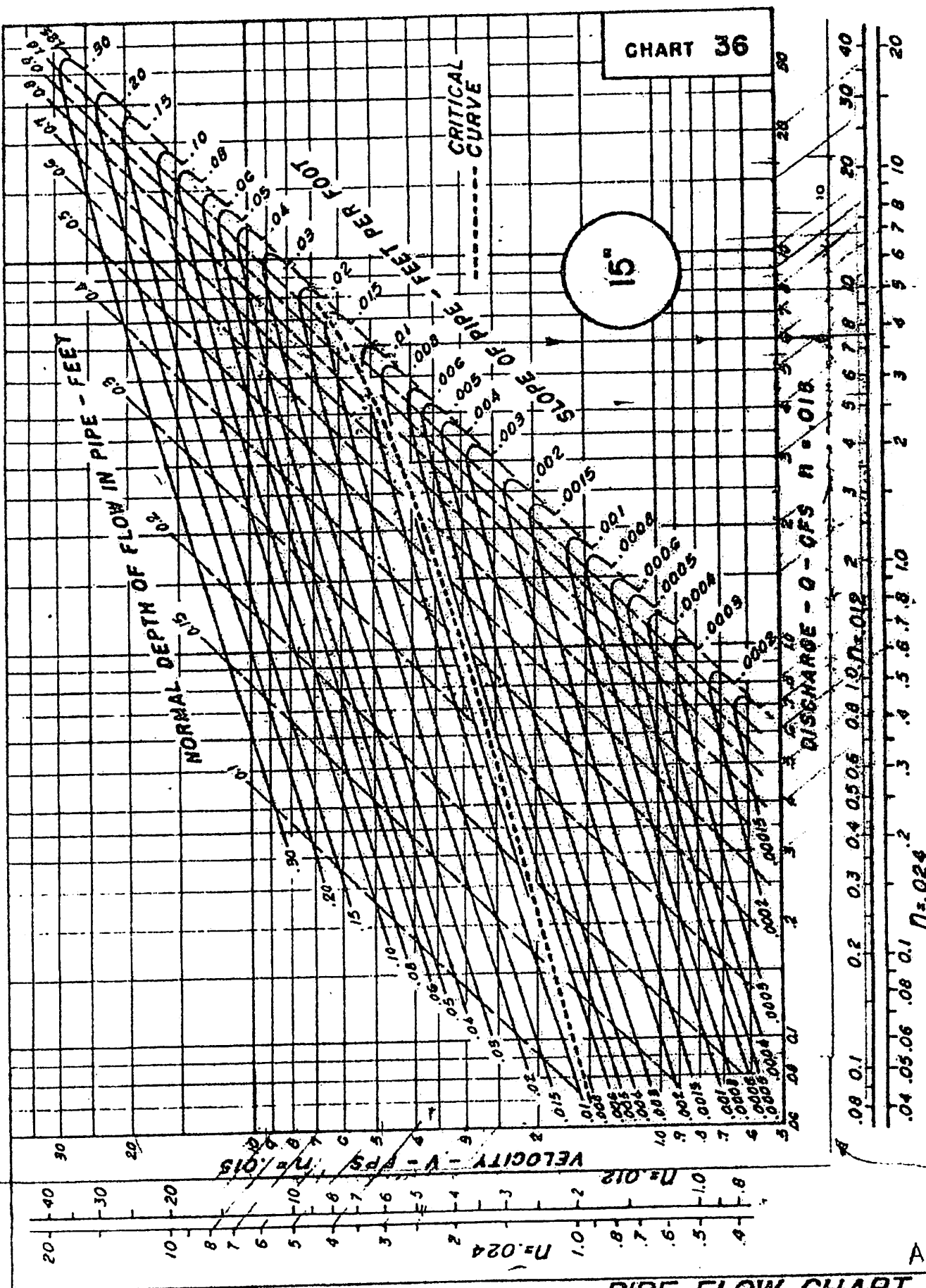
Source: Storm Drainage Design Manual, Erie and Niagara Counties Regional Planning Board.

Table 6-4 Recommended Coefficient Of Runoff Values For Various Selected Land Uses

<u>Description of Area</u>	<u>Runoff Coefficients</u>
Business: Downtown areas	0.70-0.95
Neighborhood areas	0.50-0.70
Residential: Single-family areas	0.30-0.50
Multi units, detached	0.40-0.60
Multi units, attached	0.60-0.75
Suburban	0.25-0.40
Residential (0.5 ha (1.2 ac) lots or more)	0.30-0.45
Apartment dwelling areas	0.50-0.70
Industrial: Light areas	0.50-0.80
Heavy areas	0.60-0.90
Parks, cemeteries	0.10-0.25
Playgrounds	0.20-0.40
Railroad yard areas	0.20-0.40
Unimproved areas	0.10-0.30

CHART 36

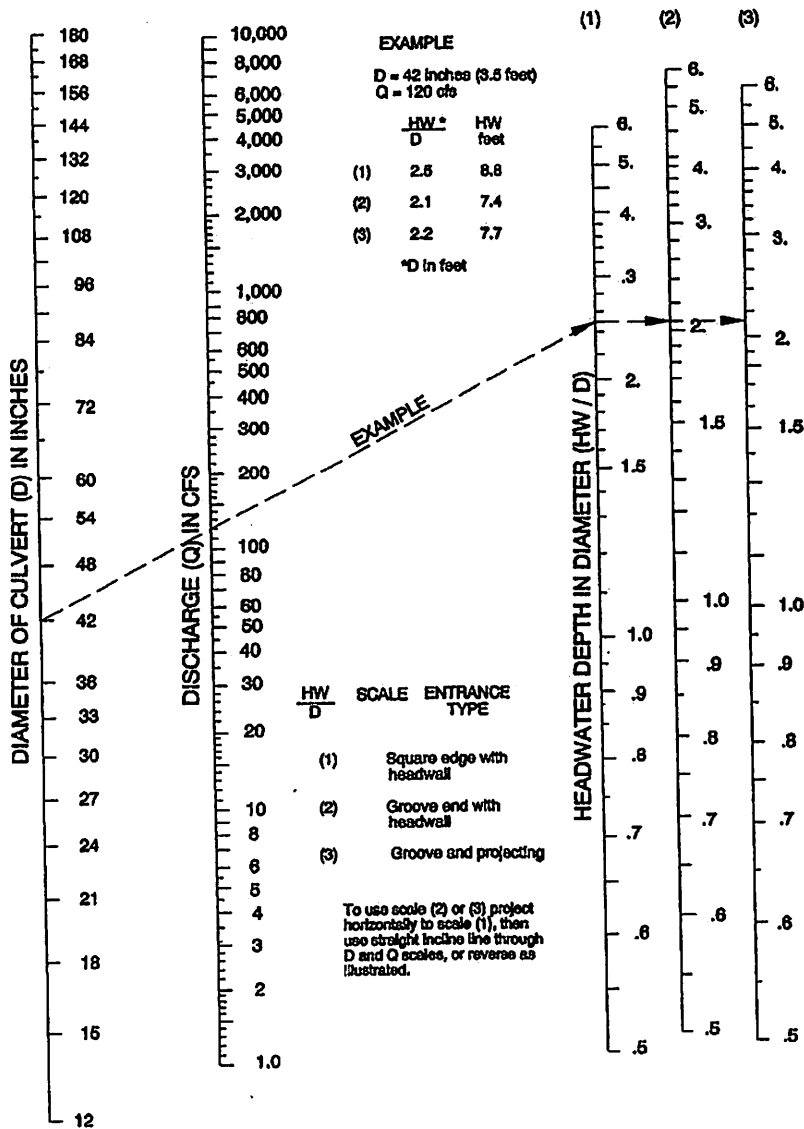
15"

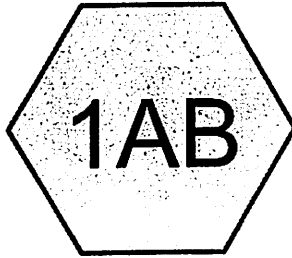


PIPE FLOW CHART
15-INCH DIAMETER

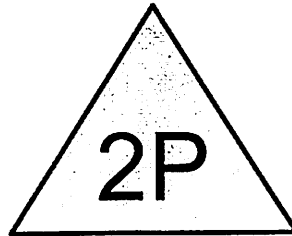
CHART 1

HEADWATER DEPTH FOR CONCRETE PIPE CULVERTS WITH INLET CONTROL

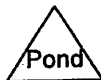




AREA B



INFILTRATION 1



RETENTION AREA 1

CT-Ledyard 2-yr Duration=15 min, Inten=2.71 in/hr

Prepared by LBM Engineering LLC

Printed 6/25/2024

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Page 2

Summary for Subcatchment 1AB: AREA B

Runoff = 0.90 cfs @ 0.17 hrs, Volume= 1,221 cf, Depth= 0.37"
 Routed to Pond 2P : INFILTRATION 1

Runoff by Rational method, Rise/Fall=1.0/2.5 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 CT-Ledyard 2-yr Duration=15 min, Inten=2.71 in/hr

Area (ac)	C	Description	Land Use
0.070	0.95	PAVEMENT A	
0.070	0.95	PAVEMENT B	
0.060	0.86	3 HOUSES	
0.720	0.21	OVERLAND B	
0.920	0.36	Weighted Average	
0.780		84.78% Pervious Area	
0.140		15.22% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, TO BASIN

Summary for Pond 2P: INFILTRATION 1

Inflow Area = 40,075 sf, 15.22% Impervious, Inflow Depth = 0.37" for 2-yr event
 Inflow = 0.90 cfs @ 0.17 hrs, Volume= 1,221 cf
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 Peak Elev= 141.30' @ 0.67 hrs Storage= 1,221 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	139.00'	3,188 cf	Custom Stage Data Listed below 4,250 cf Overall x 75.0% Voids

Elevation (feet)	Cum.Store (cubic-feet)
139.00	0
140.00	708
141.00	1,417
142.00	2,125
143.00	2,833
144.00	3,542
145.00	4,250

Device	Routing	Invert	Outlet Devices
#1	Primary	144.00'	3.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00

RETENTION AREA 1

CT-Ledyard 2-yr Duration=15 min, Inten=2.71 in/hr

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2.50 3.00

Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31

3.30 3.31 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=139.00' (Free Discharge)

↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

RETENTION AREA 1

CT-Ledyard 5-yr Duration=15 min, Inten=3.43 in/hr

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Summary for Subcatchment 1AB: AREA B

Runoff = 1.15 cfs @ 0.17 hrs, Volume= 1,547 cf, Depth= 0.46"
 Routed to Pond 2P : INFILTRATION 1

Runoff by Rational method, Rise/Fall=1.0/2.5 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 CT-Ledyard 5-yr Duration=15 min, Inten=3.43 in/hr

Area (ac)	C	Description	Land Use
0.070	0.95	PAVEMENT A	
0.070	0.95	PAVEMENT B	
0.060	0.86	3 HOUSES	
0.720	0.21	OVERLAND B	
0.920	0.36	Weighted Average	
0.780		84.78% Pervious Area	
0.140		15.22% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, TO BASIN

Summary for Pond 2P: INFILTRATION 1

Inflow Area = 40,075 sf, 15.22% Impervious, Inflow Depth = 0.46" for 5-yr event
 Inflow = 1.15 cfs @ 0.17 hrs, Volume= 1,547 cf
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 Peak Elev= 141.91' @ 0.67 hrs Storage= 1,547 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail. Storage	Storage Description
#1	139.00'	3,188 cf	Custom Stage Data Listed below 4,250 cf Overall x 75.0% Voids

Elevation (feet)	Cum. Store (cubic-feet)
139.00	0
140.00	708
141.00	1,417
142.00	2,125
143.00	2,833
144.00	3,542
145.00	4,250

Device	Routing	Invert	Outlet Devices
#1	Primary	144.00'	3.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00

RETENTION AREA 1

CT-Ledyard 5-yr Duration=15 min, Inten=3.43 in/hr

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2.50 3.00

Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31

3.30 3.31 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=139.00' (Free Discharge)

↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

RETENTION AREA 1

CT-Ledyard 10-yr Duration=15 min, Inten=4.04 in/hr

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Summary for Subcatchment 1AB: AREA B

Runoff = 1.35 cfs @ 0.17 hrs, Volume= 1,821 cf, Depth= 0.55"
 Routed to Pond 2P : INFILTRATION 1

Runoff by Rational method, Rise/Fall=1.0/2.5 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 CT-Ledyard 10-yr Duration=15 min, Inten=4.04 in/hr

Area (ac)	C	Description	Land Use
0.070	0.95	PAVEMENT A	
0.070	0.95	PAVEMENT B	
0.060	0.86	3 HOUSES	
0.720	0.21	OVERLAND B	
0.920	0.36	Weighted Average	
0.780		84.78% Pervious Area	
0.140		15.22% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, TO BASIN

Summary for Pond 2P: INFILTRATION 1

Inflow Area = 40,075 sf, 15.22% Impervious, Inflow Depth = 0.55" for 10-yr event
 Inflow = 1.35 cfs @ 0.17 hrs, Volume= 1,821 cf
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 Peak Elev= 142.43' @ 0.67 hrs Storage= 1,821 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	139.00'	3,188 cf	Custom Stage Data Listed below 4,250 cf Overall x 75.0% Voids

Elevation (feet)	Cum.Store (cubic-feet)
139.00	0
140.00	708
141.00	1,417
142.00	2,125
143.00	2,833
144.00	3,542
145.00	4,250

Device	Routing	Invert	Outlet Devices
#1	Primary	144.00'	3.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00

RETENTION AREA 1

CT-Ledyard 10-yr Duration=15 min, Inten=4.04 in/hr

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2.50 3.00

Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31

3.30 3.31 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=139.00' (Free Discharge)

←1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

RETENTION AREA 1

CT-Ledyard 25-yr Duration=15 min, Inten=4.84 in/hr

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Summary for Subcatchment 1AB: AREA B

Runoff = 1.62 cfs @ 0.17 hrs, Volume= 2,182 cf, Depth= 0.65"
 Routed to Pond 2P : INFILTRATION 1

Runoff by Rational method, Rise/Fall=1.0/2.5 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 CT-Ledyard 25-yr Duration=15 min, Inten=4.84 in/hr

Area (ac)	C	Description	Land Use
0.070	0.95	PAVEMENT A	
0.070	0.95	PAVEMENT B	
0.060	0.86	3 HOUSES	
0.720	0.21	OVERLAND B	
0.920	0.36	Weighted Average	
0.780		84.78% Pervious Area	
0.140		15.22% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, TO BASIN

Summary for Pond 2P: INFILTRATION 1

Inflow Area = 40,075 sf, 15.22% Impervious, Inflow Depth = 0.65" for 25-yr event
 Inflow = 1.62 cfs @ 0.17 hrs, Volume= 2,182 cf
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 Peak Elev= 143.11' @ 0.67 hrs Storage= 2,182 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	139.00'	3,188 cf	Custom Stage Data Listed below 4,250 cf Overall x 75.0% Voids

Elevation (feet)	Cum.Store (cubic-feet)
139.00	0
140.00	708
141.00	1,417
142.00	2,125
143.00	2,833
144.00	3,542
145.00	4,250

Device	Routing	Invert	Outlet Devices
#1	Primary	144.00'	3.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00

RETENTION AREA 1

CT-Ledyard 25-yr Duration=15 min, Inten=4.84 in/hr

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2.50 3.00

Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31

3.30 3.31 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=139.00' (Free Discharge)

↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

RETENTION AREA 1

CT-Ledyard 100-yr Duration=15 min, Inten=6.12 in/hr

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Summary for Subcatchment 1AB: AREA B

Runoff = 2.04 cfs @ 0.17 hrs, Volume= 2,759 cf, Depth= 0.83"
 Routed to Pond 2P : INFILTRATION 1

Runoff by Rational method, Rise/Fall=1.0/2.5 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 CT-Ledyard 100-yr Duration=15 min, Inten=6.12 in/hr

Area (ac)	C	Description	Land Use
0.070	0.95	PAVEMENT A	
0.070	0.95	PAVEMENT B	
0.060	0.86	3 HOUSES	
0.720	0.21	OVERLAND B	
0.920	0.36	Weighted Average	
0.780		84.78% Pervious Area	
0.140		15.22% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, TO BASIN

Summary for Pond 2P: INFILTRATION 1

Inflow Area = 40,075 sf, 15.22% Impervious, Inflow Depth = 0.83" for 100-yr event
 Inflow = 2.04 cfs @ 0.17 hrs, Volume= 2,759 cf
 Outflow = 0.24 cfs @ 0.62 hrs, Volume= 102 cf, Atten= 88%, Lag= 27.0 min
 Primary = 0.24 cfs @ 0.62 hrs, Volume= 102 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 Peak Elev= 144.09' @ 0.62 hrs Storage= 2,707 cf

Plug-Flow detention time= 37.8 min calculated for 102 cf (4% of inflow)
 Center-of-Mass det. time= 23.6 min (40.9 - 17.2)

Volume	Invert	Avail. Storage	Storage Description
#1	139.00'	3,188 cf	Custom Stage Data Listed below 4,250 cf Overall x 75.0% Voids

Elevation (feet)	Cum. Store (cubic-feet)
139.00	0
140.00	708
141.00	1,417
142.00	2,125
143.00	2,833
144.00	3,542
145.00	4,250

Device	Routing	Invert	Outlet Devices
#1	Primary	144.00'	3.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00

RETENTION AREA 1

CT-Ledyard 100-yr Duration=15 min, Inten=6.12 in/hr

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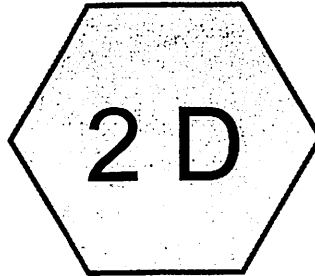
2.50 3.00

Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31

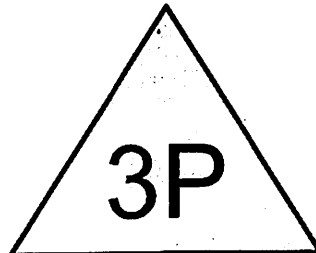
3.30 3.31 3.32

Primary OutFlow Max=0.24 cfs @ 0.62 hrs HW=144.09' (Free Discharge)

↑1=Broad-Crested Rectangular Weir (Weir Controls 0.24 cfs @ 0.83 fps)



2 AREA D



INFILTRATION 2



RETENTION AREA 2

CT-Ledyard 2-yr Duration=15 min, Inten=2.71 in/hr

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Summary for Subcatchment 2 D: 2 AREA D

Runoff = 1.16 cfs @ 0.17 hrs, Volume= 1,569 cf, Depth= 0.44"
 Routed to Pond 3P : INFILTRATION 2

Runoff by Rational method, Rise/Fall=1.0/2.5 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 CT-Ledyard 2-yr Duration=15 min, Inten=2.71 in/hr

Area (ac)	C	Description	Land Use
0.240	0.95	PAVEMENT AREA D	
0.060	0.86	ROOF 3 HOUSES	
0.690	0.21	OVERLAND	
0.990	0.43	Weighted Average	
0.750		75.76% Pervious Area	
0.240		24.24% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct Input - Small Areas

Summary for Pond 3P: INFILTRATION 2

Inflow Area = 43,124 sf, 24.24% Impervious, Inflow Depth = 0.44" for 2-yr event
 Inflow = 1.16 cfs @ 0.17 hrs, Volume= 1,569 cf
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 Peak Elev= 149.95' @ 0.67 hrs Storage= 1,569 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	147.00'	3,188 cf	Custom Stage Data Listed below 4,250 cf Overall x 75.0% Voids

Elevation (feet)	Cum.Store (cubic-feet)
147.00	0
148.00	708
149.00	1,417
150.00	2,125
151.00	2,833
152.00	3,542
153.00	4,250

Device	Routing	Invert	Outlet Devices
#1	Primary	152.00'	3.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00

RETENTION AREA 2

CT-Ledyard 2-yr Duration=15 min, Inten=2.71 in/hr

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Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
3.30 3.31 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=147.00' (Free Discharge)

↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

RETENTION AREA 2

CT-Ledyard 5-yr Duration=15 min, Inten=3.43 in/hr

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Summary for Subcatchment 2 D: 2 AREA D

Runoff = 1.47 cfs @ 0.17 hrs, Volume= 1,989 cf, Depth= 0.55"
 Routed to Pond 3P : INFILTRATION 2

Runoff by Rational method, Rise/Fall=1.0/2.5 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 CT-Ledyard 5-yr Duration=15 min, Inten=3.43 in/hr

Area (ac)	C	Description	Land Use
0.240	0.95	PAVEMENT AREA D	
0.060	0.86	ROOF 3 HOUSES	
0.690	0.21	OVERLAND	
0.990	0.43	Weighted Average	
0.750		75.76% Pervious Area	
0.240		24.24% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct Input - Small Areas

Summary for Pond 3P: INFILTRATION 2

Inflow Area = 43,124 sf, 24.24% Impervious, Inflow Depth = 0.55" for 5-yr event
 Inflow = 1.47 cfs @ 0.17 hrs, Volume= 1,989 cf
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 Peak Elev= 150.74' @ 0.67 hrs Storage= 1,989 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail. Storage	Storage Description
#1	147.00'	3,188 cf	Custom Stage Data Listed below 4,250 cf Overall x 75.0% Voids

Elevation (feet)	Cum. Store (cubic-feet)
147.00	0
148.00	708
149.00	1,417
150.00	2,125
151.00	2,833
152.00	3,542
153.00	4,250

Device	Routing	Invert	Outlet Devices
#1	Primary	152.00'	3.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00

RETENTION AREA 2

CT-Ledyard 5-yr Duration=15 min, Inten=3.43 in/hr

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Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
3.30 3.31 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=147.00' (Free Discharge)

↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

RETENTION AREA 2

CT-Ledyard 10-yr Duration=15 min, Inten=4.04 in/hr

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Summary for Subcatchment 2 D: 2 AREA D

Runoff = 1.73 cfs @ 0.17 hrs, Volume= 2,341 cf, Depth= 0.65"
 Routed to Pond 3P : INFILTRATION 2

Runoff by Rational method, Rise/Fall=1.0/2.5 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 CT-Ledyard 10-yr Duration=15 min, Inten=4.04 in/hr

Area (ac)	C	Description	Land Use
0.240	0.95	PAVEMENT AREA D	
0.060	0.86	ROOF 3 HOUSES	
0.690	0.21	OVERLAND	
0.990	0.43	Weighted Average	
0.750		75.76% Pervious Area	
0.240		24.24% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct Input - Small Areas

Summary for Pond 3P: INFILTRATION 2

Inflow Area = 43,124 sf, 24.24% Impervious, Inflow Depth = 0.65" for 10-yr event
 Inflow = 1.73 cfs @ 0.17 hrs, Volume= 2,341 cf
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 Peak Elev= 151.41' @ 0.67 hrs Storage= 2,341 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	147.00'	3,188 cf	Custom Stage Data Listed below 4,250 cf Overall x 75.0% Voids

Elevation (feet)	Cum.Store (cubic-feet)
147.00	0
148.00	708
149.00	1,417
150.00	2,125
151.00	2,833
152.00	3,542
153.00	4,250

Device	Routing	Invert	Outlet Devices
#1	Primary	152.00'	3.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00

RETENTION AREA 2

CT-Ledyard 10-yr Duration=15 min, Inten=4.04 in/hr

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Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
3.30 3.31 3.32

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=147.00' (Free Discharge)
↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

RETENTION AREA 2

CT-Ledyard 25-yr Duration=15 min, Inten=4.84 in/hr

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Summary for Subcatchment 2 D: 2 AREA D

Runoff = 2.08 cfs @ 0.17 hrs, Volume= 2,804 cf, Depth= 0.78"
 Routed to Pond 3P : INFILTRATION 2

Runoff by Rational method, Rise/Fall=1.0/2.5 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 CT-Ledyard 25-yr Duration=15 min, Inten=4.84 in/hr

Area (ac)	C	Description	Land Use
0.240	0.95	PAVEMENT AREA D	
0.060	0.86	ROOF 3 HOUSES	
0.690	0.21	OVERLAND	
0.990	0.43	Weighted Average	
0.750		75.76% Pervious Area	
0.240		24.24% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct Input - Small Areas

Summary for Pond 3P: INFILTRATION 2

Inflow Area = 43,124 sf, 24.24% Impervious, Inflow Depth = 0.78" for 25-yr event
 Inflow = 2.08 cfs @ 0.17 hrs, Volume= 2,804 cf
 Outflow = 0.33 cfs @ 0.60 hrs, Volume= 148 cf, Atten= 84%, Lag= 25.9 min
 Primary = 0.33 cfs @ 0.60 hrs, Volume= 148 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 Peak Elev= 152.12' @ 0.60 hrs Storage= 2,719 cf

Plug-Flow detention time= 35.8 min calculated for 147 cf (5% of inflow)
 Center-of-Mass det. time= 22.1 min (39.4 - 17.2)

Volume	Invert	Avail. Storage	Storage Description
#1	147.00'	3,188 cf	Custom Stage Data Listed below 4,250 cf Overall x 75.0% Voids

Elevation (feet)	Cum. Store (cubic-feet)
147.00	0
148.00	708
149.00	1,417
150.00	2,125
151.00	2,833
152.00	3,542
153.00	4,250

Device	Routing	Invert	Outlet Devices
#1	Primary	152.00'	3.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00

RETENTION AREA 2

CT-Ledyard 25-yr Duration=15 min, Inten=4.84 in/hr

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Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
3.30 3.31 3.32

Primary OutFlow Max=0.33 cfs @ 0.60 hrs HW=152.12' (Free Discharge)

↳ **1=Broad-Crested Rectangular Weir** (Weir Controls 0.33 cfs @ 0.92 fps)

RETENTION AREA 2

CT-Ledyard 100-yr Duration=15 min, Inten=6.12 in/hr

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Summary for Subcatchment 2 D: 2 AREA D

Runoff = 2.63 cfs @ 0.17 hrs, Volume= 3,546 cf, Depth= 0.99"
 Routed to Pond 3P : INFILTRATION 2

Runoff by Rational method, Rise/Fall=1.0/2.5 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 CT-Ledyard 100-yr Duration=15 min, Inten=6.12 in/hr

Area (ac)	C	Description	Land Use
0.240	0.95	PAVEMENT AREA D	
0.060	0.86	ROOF 3 HOUSES	
0.690	0.21	OVERLAND	
0.990	0.43	Weighted Average	
0.750		75.76% Pervious Area	
0.240		24.24% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct Input - Small Areas

Summary for Pond 3P: INFILTRATION 2

Inflow Area = 43,124 sf, 24.24% Impervious, Inflow Depth = 0.99" for 100-yr event
 Inflow = 2.63 cfs @ 0.17 hrs, Volume= 3,546 cf
 Outflow = 1.34 cfs @ 0.45 hrs, Volume= 889 cf, Atten= 49%, Lag= 17.1 min
 Primary = 1.34 cfs @ 0.45 hrs, Volume= 889 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
 Peak Elev= 152.30' @ 0.45 hrs Storage= 2,817 cf

Plug-Flow detention time= 24.0 min calculated for 887 cf (25% of inflow)
 Center-of-Mass det. time= 14.1 min (31.3 - 17.2)

Volume	Invert	Avail.Storage	Storage Description
#1	147.00'	3,188 cf	Custom Stage Data Listed below 4,250 cf Overall x 75.0% Voids

Elevation (feet)	Cum.Store (cubic-feet)
147.00	0
148.00	708
149.00	1,417
150.00	2,125
151.00	2,833
152.00	3,542
153.00	4,250

Device	Routing	Invert	Outlet Devices
#1	Primary	152.00'	3.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00

RETENTION AREA 2

CT-Ledyard 100-yr Duration=15 min, Inten=6.12 in/hr

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Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
3.30 3.31 3.32

Primary OutFlow Max=1.34 cfs @ 0.45 hrs HW=152.30' (Free Discharge)
↳ **1=Broad-Crested Rectangular Weir** (Weir Controls 1.34 cfs @ 1.48 fps)