

PRE-DEVELOPMENT
OVERALL DEVELOPMENT
SCALE: 1" = 100'

*FOR DETAILED INFORMATION OF EACH PHASE OF DEVELOPMENT, PLEASE SEE SHEETS 38 AND 39.

Pre-ReDevelopment Land Cover (acres)					
	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed forest/open space		0.73		0.09	0.82
Managed Turf (acres) -- disturbed, graded for yards or other turf to be		0.06	0.01	0.33	0.40
Impervious Cover (acres)		0.01	0.00	0.91	0.92
					2.14

POST-DEVELOPMENT
OVERALL DEVELOPMENT
SCALE: 1" = 100'

*FOR DETAILED INFORMATION OF EACH PHASE OF DEVELOPMENT, PLEASE SEE SHEETS 38 AND 39.

Post-Development Land Cover (acres)					
	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be		0.43	0.01	0.40	0.84
Impervious Cover (acres)		0.37	0.00	0.93	1.30
Area Check	OK.	OK.	OK.	OK.	2.14

6. Bioretention (RR)													
6.b. Bioretention #2 or Micro-Bioretention #2 (Spec #9)	80	0.31	0.63	0	1,941	485	2,426	50	0.00	1.52	1.37	0.15	

14. Manufactured Treatment Devices (no RR)													
14.a. Manufactured Treatment Device-Hydrodynamic	0	0.07	0.33	0	0	1,194	1,194	20	0.00	0.75	0.15	0.60	10.ISOLATOR ROW
10.b. ISOLATOR ROW (40% PHOS. REMOVAL)	0			1,194	0	1,194	1,194	40	0.60	0.00	0.24	0.36	14.b. MTD - Filtering
14.b. Manufactured Treatment Device-Filtering	0			1,194	0	1,194	1,194	50	0.36	0.00	0.18	0.18	

OVERALL STORMWATER/OUTFALL NARRATIVE

THE OUTFALL POINT OF THIS PROJECT IS AT ACOTCING CREEK, ABOUT 340' DOWNSTREAM OF THE EXISTING CULVERTS UNDER PRESBYTERIAN WAY, PER 9VA025-870-66-B-4. AT THIS POINT, ONSITE RUNOFF DISCHARGES INTO A NATURAL CHANNEL, THROUGH AN EXISTING MAN-MADE STORM SEWER, A LEVEL 2 BIORETENTION AREA AND MULTIPLE MANUFACTURED TREATMENT FACILITIES ARE PROPOSED TO MITIGATE THE IMPACTS OF THE PROPOSED DEVELOPMENT ON THE EXISTING PARKING LOT AND FORESTED AREAS WITHIN THE LIMITS OF CLEARING AND GRADING.

CHANNEL PROTECTION:
POST DEVELOPMENT RUNOFF DURING THE 1-YEAR STORM EVENT HAS BEEN
REDUCED IN ACCORDANCE WITH 9VAC25-870-66-B-3-A, AND AS SUCH,
CHANNEL PROTECTION REQUIREMENTS HAVE BEEN MET FOR THIS PORTION OF THE
SITE.

FLOOD PROTECTION:
THE POST DEVELOPMENT 2-YEAR STORM AND 10-YEAR 24-HOUR STORMS WILL HAVE PEAK RUNOFF RATES WHICH ARE LESS THAN THE PRE DEVELOPMENT CONDITION, PER 9VAC25-870-66-C-1. THE LIMIT OF ANALYSIS FOR FLOOD PROTECTION IS WITHIN ACCOTINK CREEK, 340' DOWNSTREAM OF THE EXISTING CULVERTS UNDER PRESBYTERIAN WAY, PER 9VAC25-870-66-C-3-C.

SEE RUNOFF SUMMARY TABLE ON THIS SHEET.

WATER QUALITY:
BIOTRENTION, A LOW IMPACT DEVELOPMENT (LID) TECHNIQUE, IS BEING PROPOSED ON THE TOWN HOME PORTION OF THE PROJECT TO MEET WATER QUALITY REQUIREMENTS. A SERIES OF MANUFACTURED FILTERING DEVICES AND A HYDRODYNAMIC SEPARATOR IS PROPOSED ON THE ADDITIONAL PARKING PORTION OF THE PROJECT TO ADDRESS WATER QUALITY REQUIREMENTS. THE BIOTRENTION FACILITY AND THE MANUFACTURED TREATMENT DEVICES WILL BE PRIVATELY OWNED AND MAINTAINED.

SEE VRRM SUMMARY ON THIS SHEET.

THE BMP AND SWM DESIGN SHOWN ARE PRELIMINARY AND MAY CHANGE AT THE TIME OF FINAL ENGINEERING. THE PROJECT MAY USE NUTRIENT CREDITS OR ALTERNATE BMP/SWM FACILITIES TO MEET THE WATER QUALITY AND WATER QUANTITY REQUIREMENTS FOR THIS PROJECT AS NECESSARY.

OVERALL DEVELOPMENT	
1-Year Storm Channel Protection	
Pre Dev. Q Onsite	2.63 cfs
Pre Dev Rv	7,361 cf
Post Dev Rv	11,312 cf
Pre/post vol. ratio	0.65
Improvement Factor	0.8
Post Dev Q allowable	1.37 cfs
Offsite Controlled (UGS 1) (pre dev bypass)	0.55 cfs
Offsite Controlled (UGS 2) (pre dev bypass)	0.26 cfs
Total Allowable release	2.18 cfs
Post Dev Onsite Uncontrolled	0.95 cfs
Post Dev UGS 1 Release	0.95 cfs
Post Dev UGS 2 Release	0.25 cfs
Total Post Dev Release	2.15 cfs

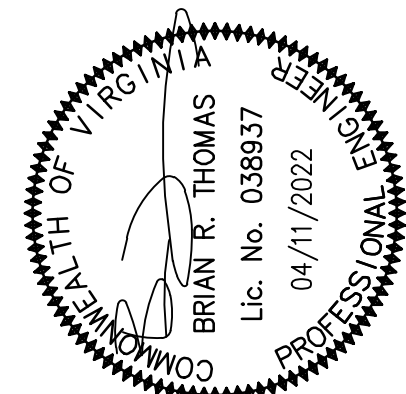
Stormwater Quantity Summary - Overall Development			
	1-Year Storm Channel Protection (cfs)	2-Year Storm (cfs)	10-Year Storm Flood Protection (cfs)
Pre Development	3.44	4.99	10.25
Post Development allowable release	2.18	4.99	10.25
Post Development Release	2.15	4.31	9.61

Total Phosphorus	
FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	3.25
TP LOAD REDUCTION REQUIRED (lb/yr)	1.29
TP LOAD REDUCTION ACHIEVED (lb/yr)	1.94
TP LOAD REMAINING (lb/yr):	1.31
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	0.00

**** TARGET TP REDUCTION EXCEEDED BY**

**FAIRFAX
PRESBYTERIAN
CHURCH**

CITY OF FAIRFAX, VIRGINIA



DESIGN GMP	DRAFT GMP
APPROVED	BRT
DATE JAN. 2021	
SCALE HORIZ: 1" = 100' VERT: -- --	

SHEET 41	OF 50
PRJ NO: 2017-257	
TYPE: MDP	



Pre-ReDevelopment Land Cover (acres)					
	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed forest/open space		0.50			0.50
Managed Turf (acres) -- disturbed, graded for yards or other turf to be		0.01	0.01	0.05	0.07
Impervious Cover (acres)		0.01	0.00	0.90	0.91
					1.48



Post-Development Land Cover (acres)					
	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested					0.00
Managed Turf (acres) -- to be disturbed, graded for yards or other turf to be		0.29	0.01	0.29	0.59
Impervious Cover (acres)		0.23	0.00	0.66	0.89
Area Check	OK.	OK.	OK.	OK.	1.48

6. Bioretention (RR)													
6.b. Bioretention #2 or Micro-Bioretention #2 (Spec #9)	80	0.31	0.63	0	1,941	485	2,426	50	0.00	1.52	1.37	0.15	

PHASE ONE – TOWNHOUSE DEVELOPMENT STORMWATER/OUTFALL NARRATIVE

THE OUTFALL POINT OF THIS PORTION OF THE PROJECT IS AT ACOTCINK CREEK, ABOUT 340' DOWNSTREAM OF THE EXISTING CULVERTS UNDER PRESBYTERIAN WAY, PER 9VAC25-870-66-B-4. AT THIS POINT, ONSITE RUNOFF DISCHARGES INTO A NATURAL CHANNEL, THROUGH AN EXISTING MAN-MADE STORM SEWER. A LEVEL 2 BIORETENTION AREA IS PROPOSED TO MITIGATE THE IMPACTS OF THE PROPOSED DEVELOPMENT ON THE EXISTING PARKING LOT AND FORESTED AREAS WITHIN THE LIMITS OF CLEARING AND GRADING.

CHANNEL PROTECTION:
POST DEVELOPMENT RUNOFF DURING THE 1-YEAR STORM EVENT HAS BEEN
REDUCED IN ACCORDANCE WITH 9VAC25-870-66-B-3-A, AND AS SUCH,
CHANNEL PROTECTION REQUIREMENTS HAVE BEEN MET FOR THIS PORTION OF THE
SITE.

FLOOD PROTECTION:
THE POST DEVELOPMENT 2-YEAR STORM AND 10-YEAR 24-HOUR STORMS WILL HAVE PEAK RUNOFF RATES WHICH ARE LESS THAN THE PRE DEVELOPMENT CONDITION, PER 9VAC25-870-66-C-1. THE LIMIT OF ANALYSIS FOR FLOOD PROTECTION IS WITHIN ACCOTINK CREEK, 340' DOWNSTREAM OF THE EXISTING CULVERTS UNDER PRESBYTERIAN WAY, PER 9VAC25-870-66-C-3-C.

SEE RUNOFF SUMMARY TABLE ON THIS SHEET.

WATER QUALITY:
BIORETENTION, A LOW IMPACT DEVELOPMENT (LID) TECHNIQUE, IS BEING PROPOSED ON THIS PORTION OF THE PROJECT TO MEET WATER QUALITY REQUIREMENTS. THE BIORETENTION FACILITY WILL BE PRIVATELY OWNED AND MAINTAINED.

SEE VRRM SUMMARY ON THIS SHEET.

THE BMP AND SWM DESIGN IS PRELIMINARY AND MAY CHANGE AT THE TIME OF FINAL ENGINEERING. THE PROJECT MAY USE NUTRIENT CREDITS OR ALTERNATE BMP/SWM FACILITIES TO MEET THE WATER QUALITY AND WATER QUANTITY REQUIREMENTS FOR THIS PROJECT AS NECESSARY.

PHASE 1 - TOWNHOMES 1-Year Storm Channel Protection	
Pre Dev Q. Onsite	2.18 cfs
Pre Dev Rv	6,022 cf
Post Dev Rv	7,823 cf
Pre/post vol. ratio	0.77
Improvement Factor	0.8
Post Dev Q allowable	1.34 cfs
Offsite Controlled (UGS 1) (pre dev bypass)	0.55 cfs
Total Allowable release	1.89 cfs
Post Dev Onsite Uncontrolled	0.63 cfs
Post Dev UGS 1 Release	0.95 cfs
Total Post Dev Release	1.58 cfs

Stormwater Quantity Summary - Phase 1 - Townhomes			
	1-Year Channel Protection	2-Year Storm (cfs)	10-Year Storm Flood Protection (cfs)
Pre Development	2.73	3.86	7.58
Post Development allowable release	1.89	3.86	7.58
Post Development Release	1.58	3.54	7.29

Total Phosphorus	
FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	2.23
TP LOAD REDUCTION REQUIRED (lb/yr)	0.60
TP LOAD REDUCTION ACHIEVED (lb/yr)	1.37
TP LOAD REMAINING (lb/yr):	0.86
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	0.00

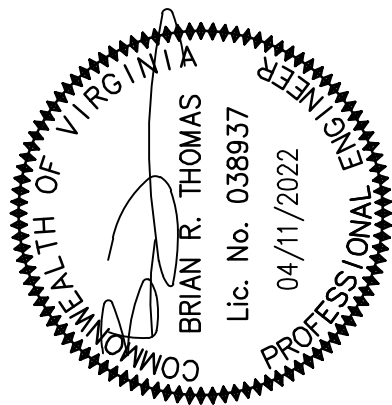
**** TARGET TP REDUCTION EXCEEDED BY 100%**

DESIGN GMP	DRAFT GMP	APPROVED BRT	DATE JAN. 2021	SCALE HORIZ: 1" = 30'	VERT: ---
SHEET 42		OF 50			
PRJ NO: 2017-2570					
TYPE: MDP					

PHASE ONE STORMWATER MANAGEMENT/BMP DESIGN

**FAIRFAX
PRESBYTERIAN
CHURCH**

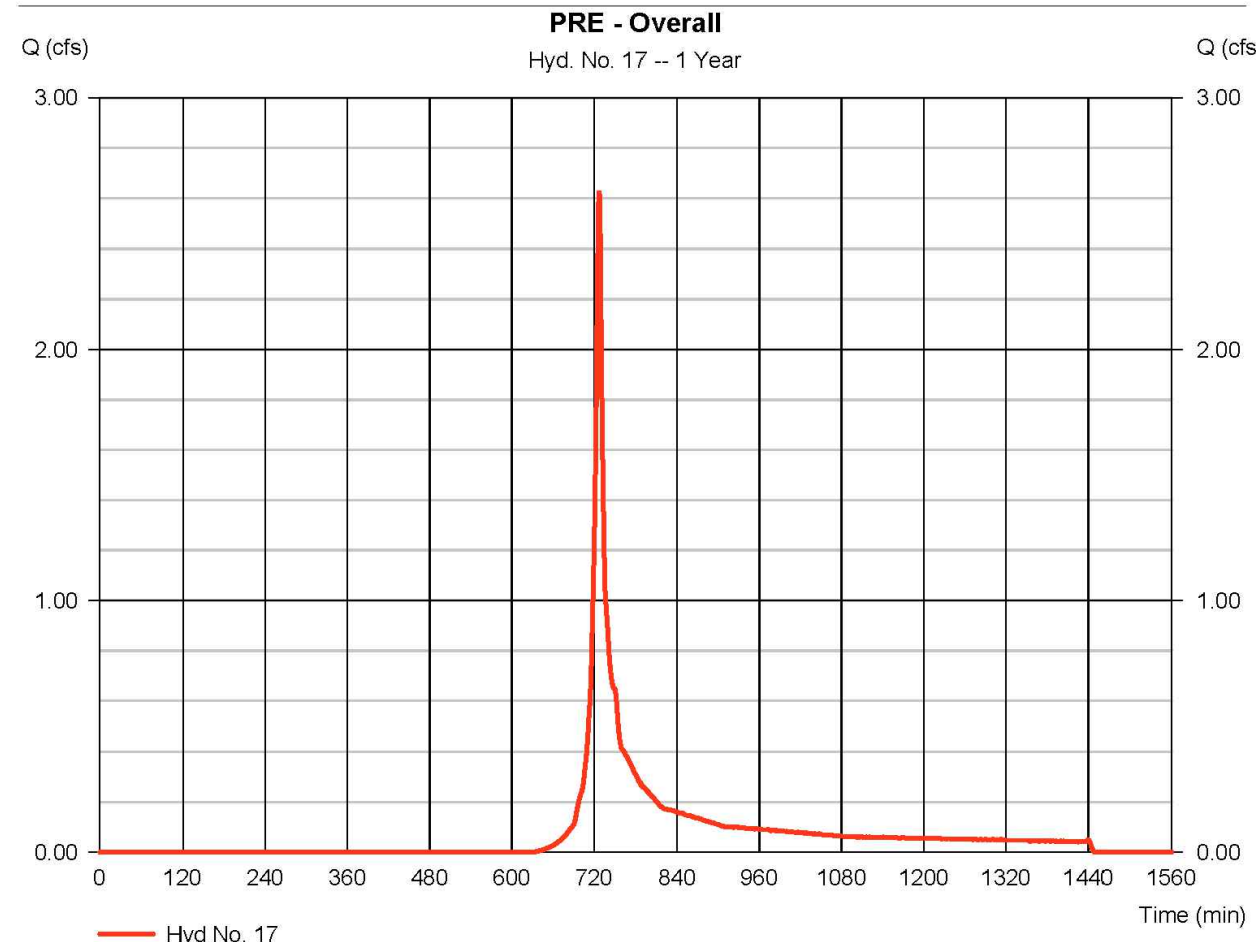
CITY OF FAIRFAX, VIRGINIA



CPJ Associates
Charles P. Johnson & Associates, Inc.
Civil and Environmental Engineers • Planners • Landscape Architects • Surveyors
3959 Pender Dr., Ste. 210 Fairfax, VA 22030 703-385-7555 FAX: 703-273-8595
www.cpja.com • Silver Spring, MD • Gaithersburg, MD • Annapolis, MD • Greenbelt, MD • Frederick, MD • Fairfax, VA

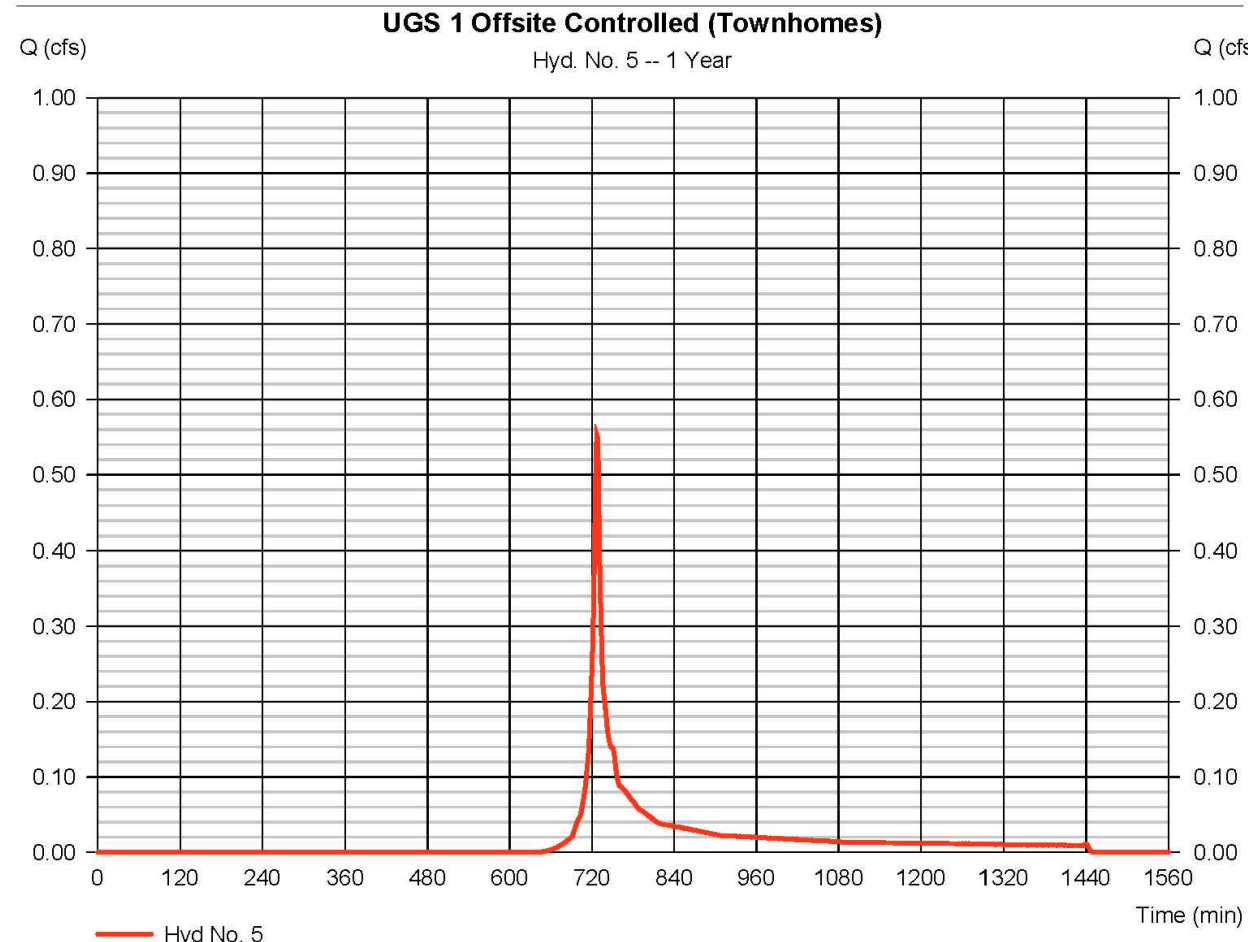
PRE DEV. ONSITE - 1-YEAR	
1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30
31	32
33	34
35	36
37	38
39	40
41	42
43	44
45	46
47	48
49	50
51	52
53	54
55	56
57	58
59	60
61	62
63	64
65	66
67	68
69	70
71	72
73	74
75	76
77	78
79	80
81	82
83	84
85	86
87	88
89	90
91	92
93	94
95	96
97	98
99	100

Hydrograph type	=	SCS Runoff	Peak discharge
Storm frequency	=	1 yrs	Time to peak
Time interval	=	1 min	Hyd. volume
Drainage area	=	2.140 ac	Curve number
Basin Slope	=	0.0 %	Hydraulic length
Tc method	=	User	Time of conc. (T)
Total precip.	=	2.62 in	Distribution
Storm duration	=	NOAA_C(1min).CDS	Shape factor



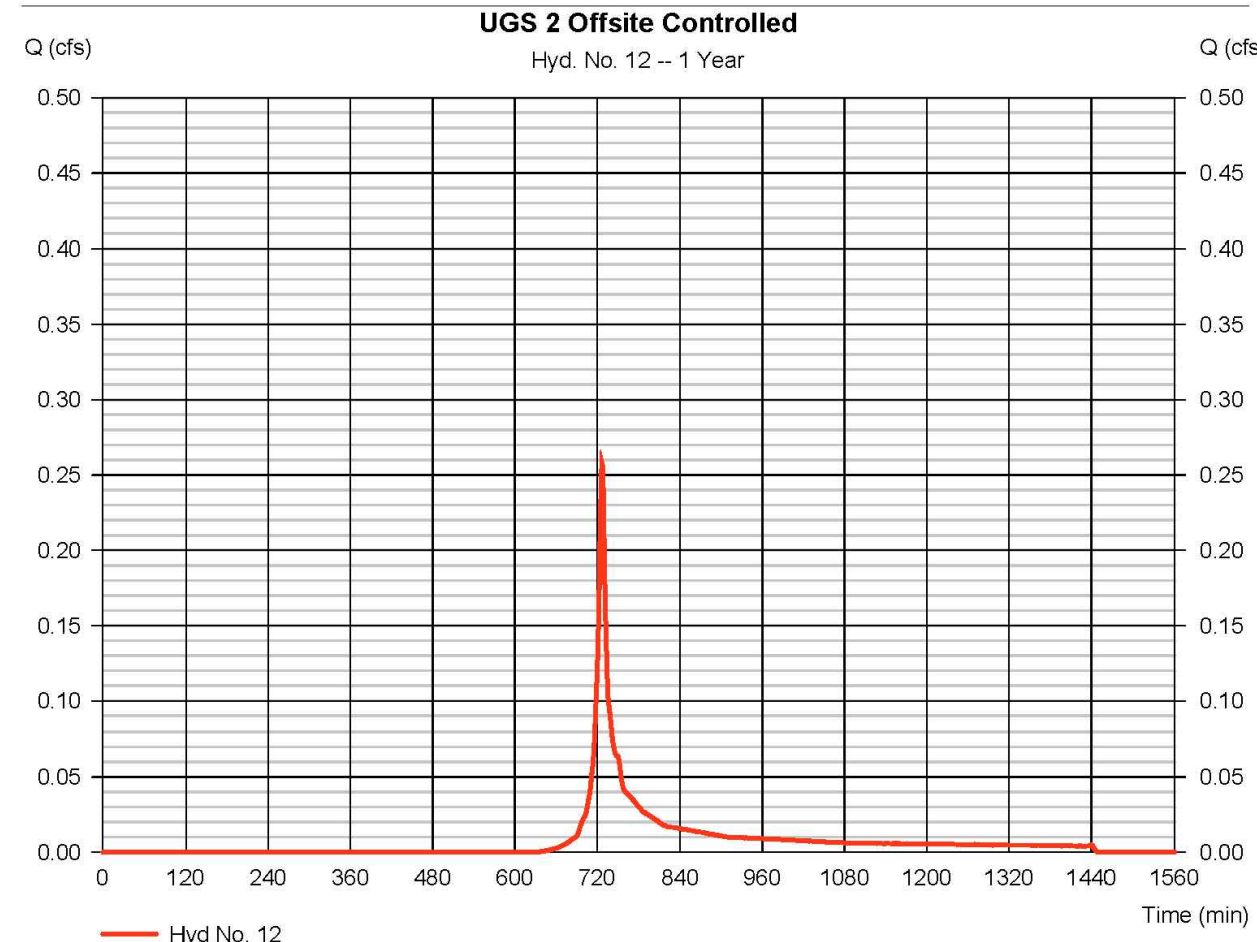
PRE DEV OFFSITE BYPASS/UGS 1 OFFSITE CONTROLLED 1-YEAR
--

Hydrograph type	= SCS Runoff	Peak discharge	= 0.552 cfs
Storm frequency	= 1 yrs	Time to peak	= 127 min
Time interval	= 1 min	Hyd. volume	= 1,557 cuf
Drainage area	= 0.480 ac	Curve number	= 78*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 2.62 in	Distribution	= Custom
Storm duration	= NOAA_C(1min).CDS	Shape factor	= 484



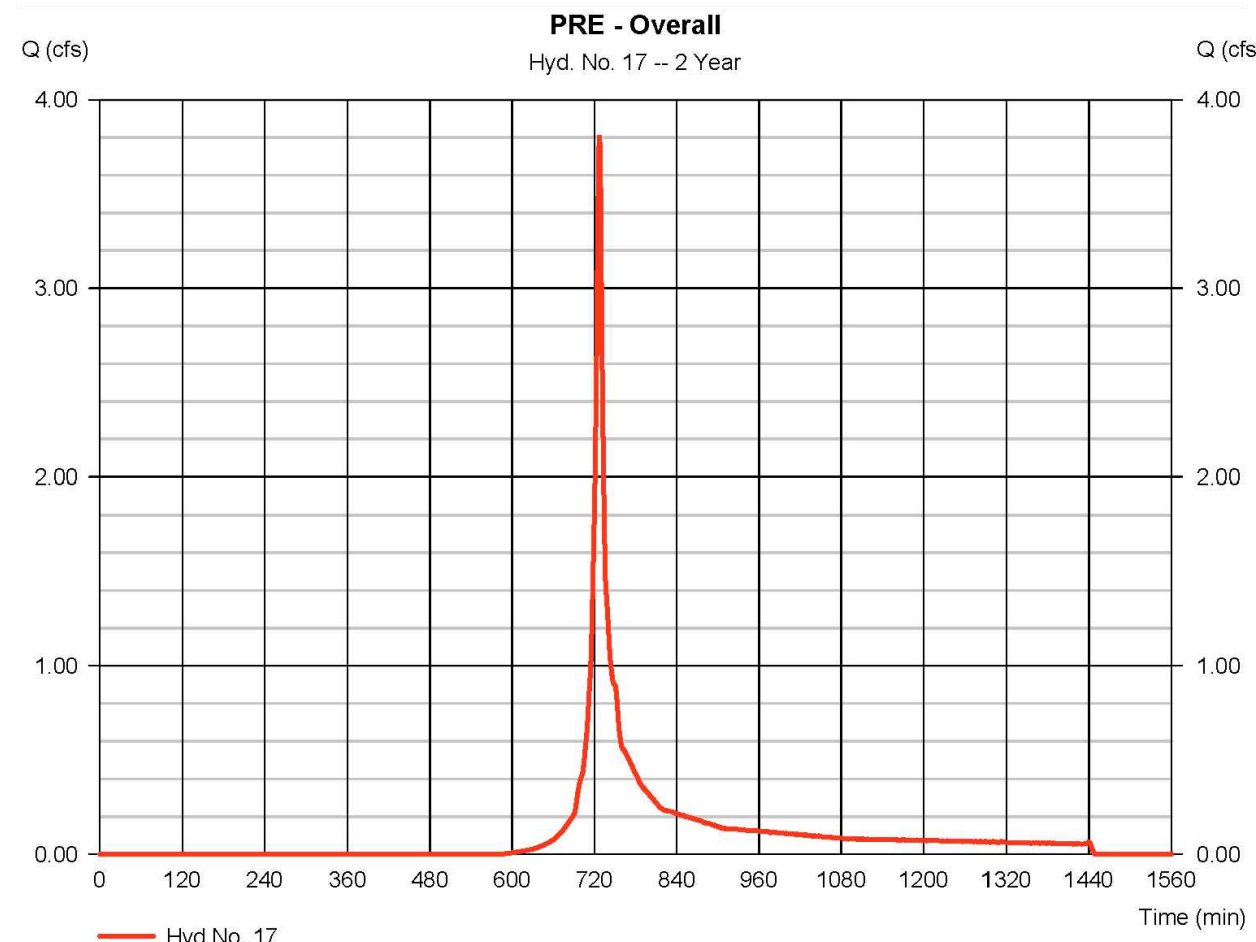
PRE DEV OFFSITE BYPASS/UGS 2 OFFSITE CONTROLLED 1-YEAR
--

Hydrograph type	= SCS Runoff	Peak discharge	= 0.258 cfs
Storm frequency	= 1 yrs	Time to peak	= 727 min
Time interval	= 1 min	Hyd. volume	= 722 cuft
Drainage area	= 0.210 ac	Curve number	= 79*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 2.62 in	Distribution	= Custom
Storm duration	= NOAA_C(1min).CDS	Shape factor	= 484



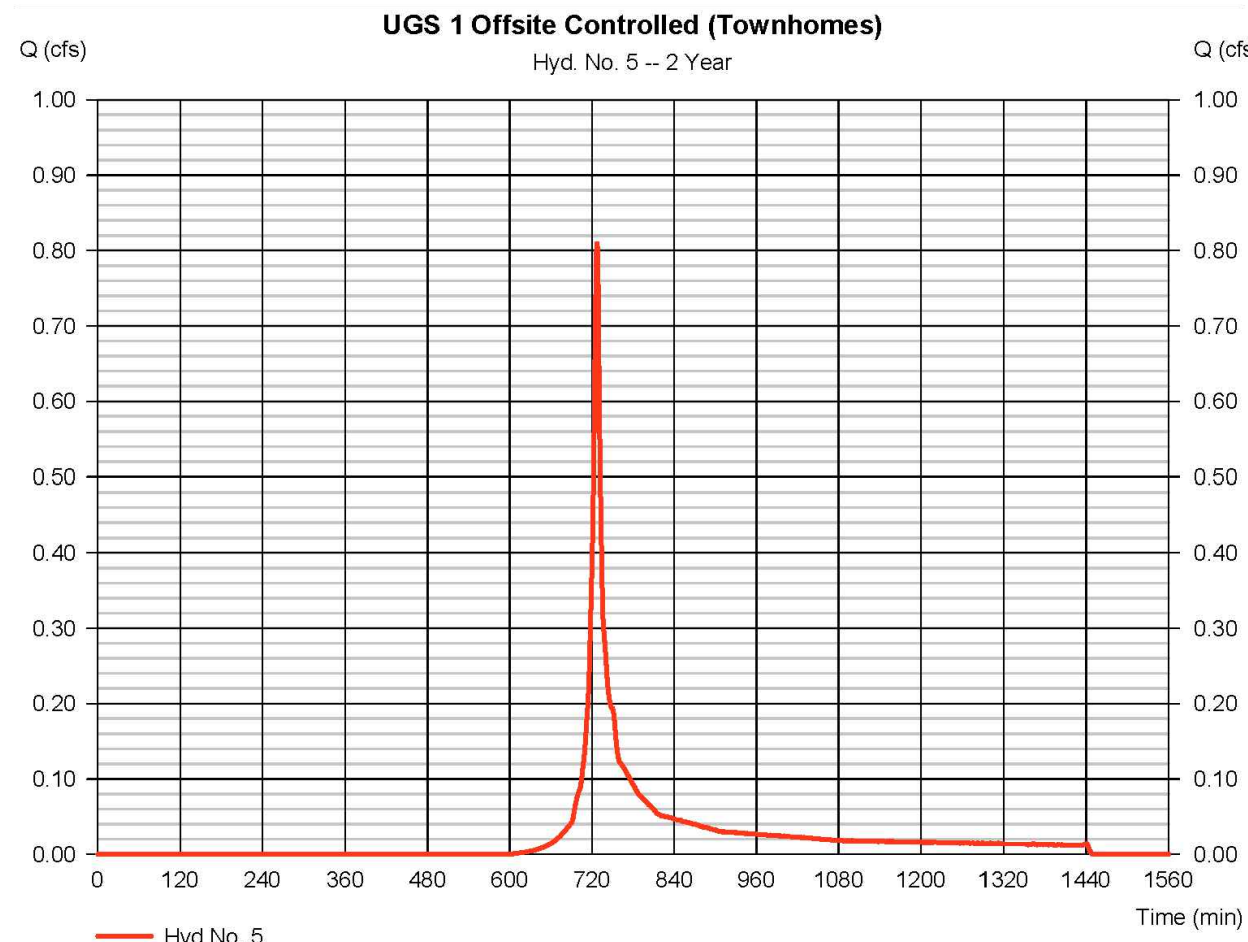
PRE DEV. ONSITE - 2-YEAR

Hydrograph type	= SCS Runoff	Peak discharge
Storm frequency	= 2 yrs	Time to peak
Time interval	= 1 min	Hyd. volume
Drainage area	= 2,140 ac	Curve number
Basin Slope	= 0.0 %	Hydraulic length
Tc method	= User	Time of conc. (T)
Total precip.	= 3.17 in	Distribution
Storm duration	= NOAA_C(1min).CDS	Shape factor



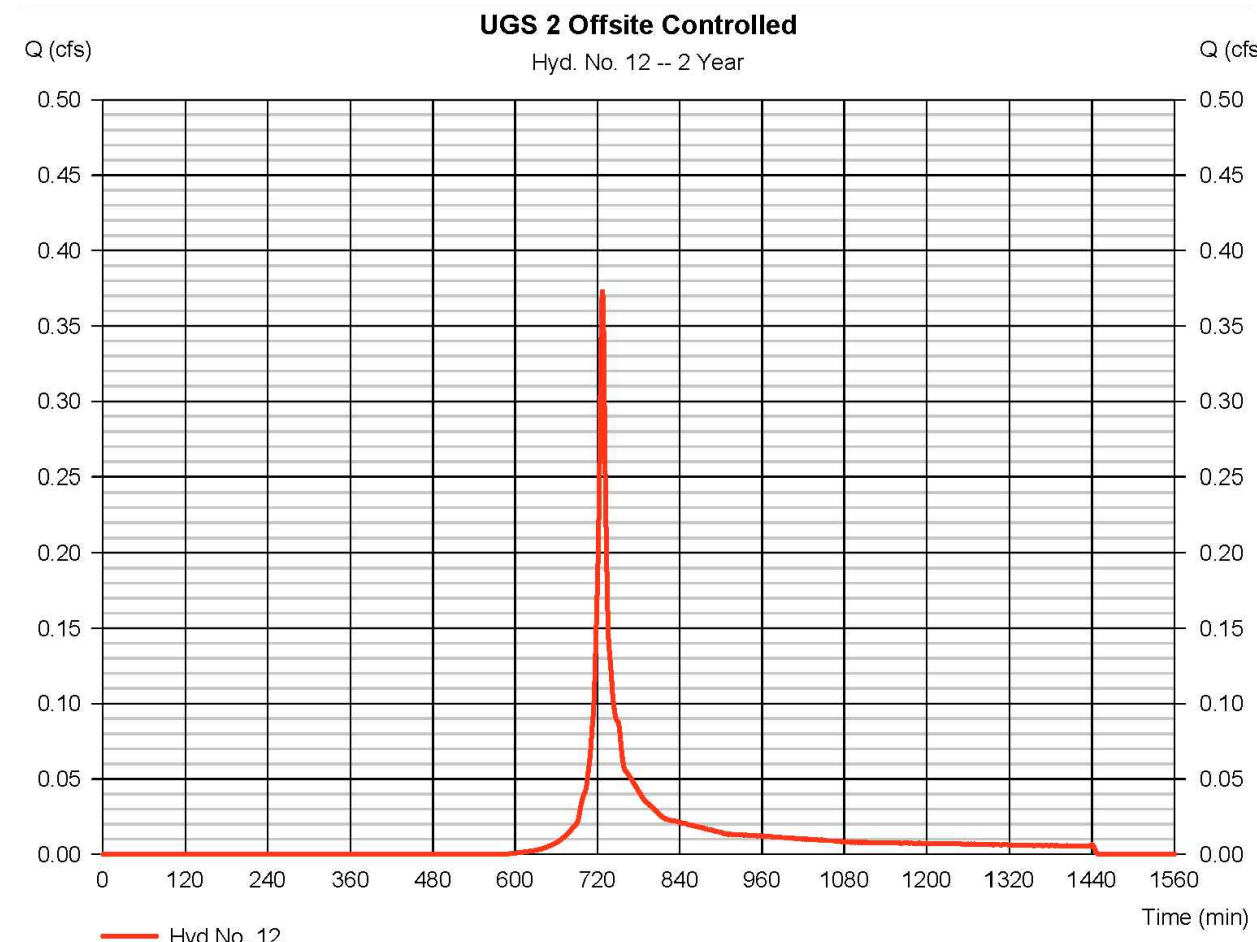
PRE	DEV	OFFSITE	BYPASS/UGS	1	OFFSITE	CONTROLLED	2-YEAR
-----	-----	---------	------------	---	---------	------------	--------

Hydrograph type	= SCS Runoff	Peak discharge	= 0.811 cfs
Storm frequency	= 2 yrs	Time to peak	= 727 min
Time interval	= 1 min	Hyd. volume	= 2,249 cuf
Drainage area	= 0.480 ac	Curve number	= 78"
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.17 in	Distribution	= Custom
Storm duration	= NOAA_C(1min).CDS	Shape factor	= 484



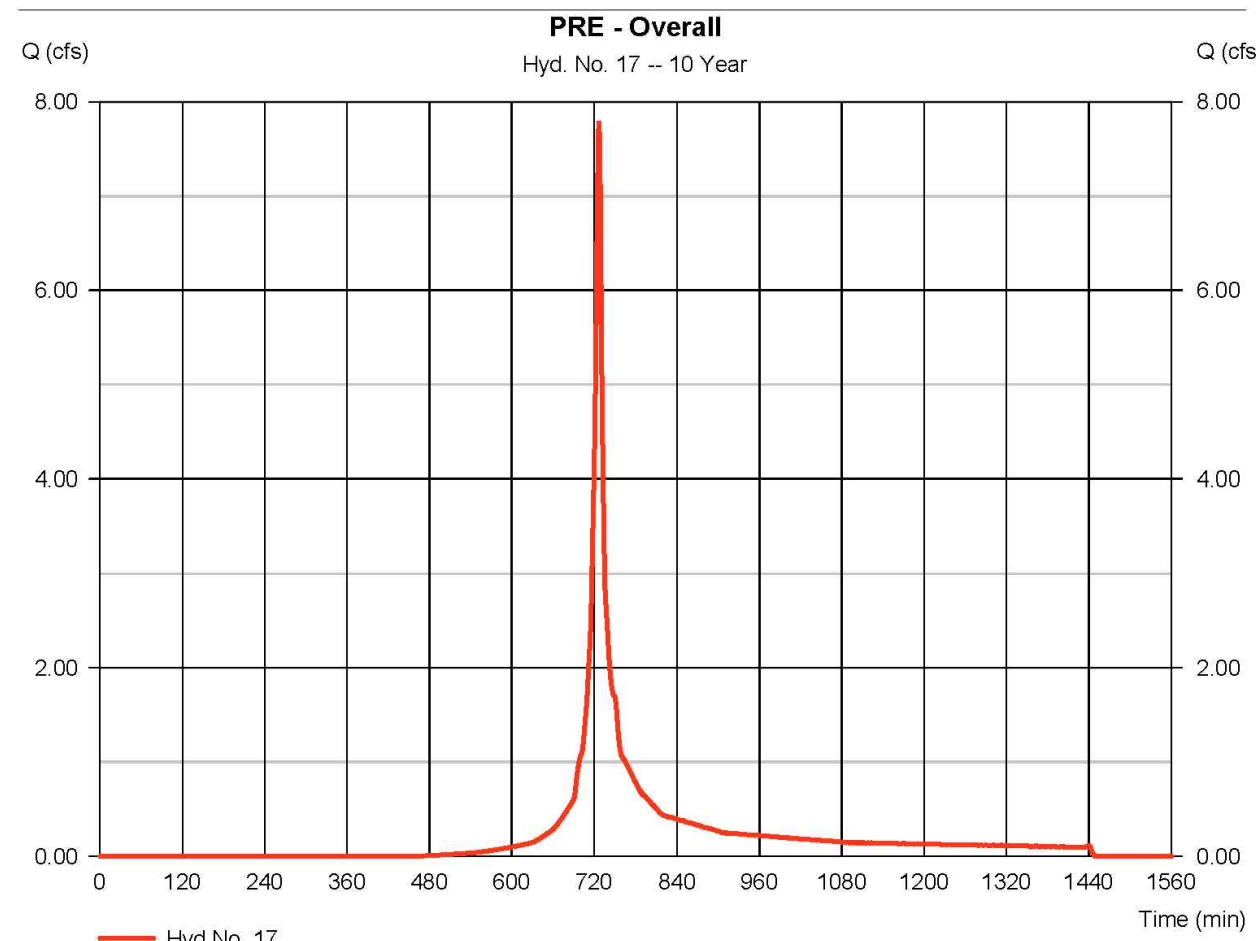
PRE DEV OFFSITE BYPASS/UGS 2 OFFSITE CONTROLLED 2-YEAR
--

Hydrograph type	= SCS Runoff	Peak discharge	= 0.374 cfs
Storm frequency	= 2 yrs	Time to peak	= 727 min
Time interval	= 1 min	Hyd. volume	= 1,033 cu ft
Drainage area	= 0.210 ac	Curve number	= 79*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.17 in	Distribution	= Custom
Storm duration	= NOAA_C(1min).CDS	Shape factor	= 484



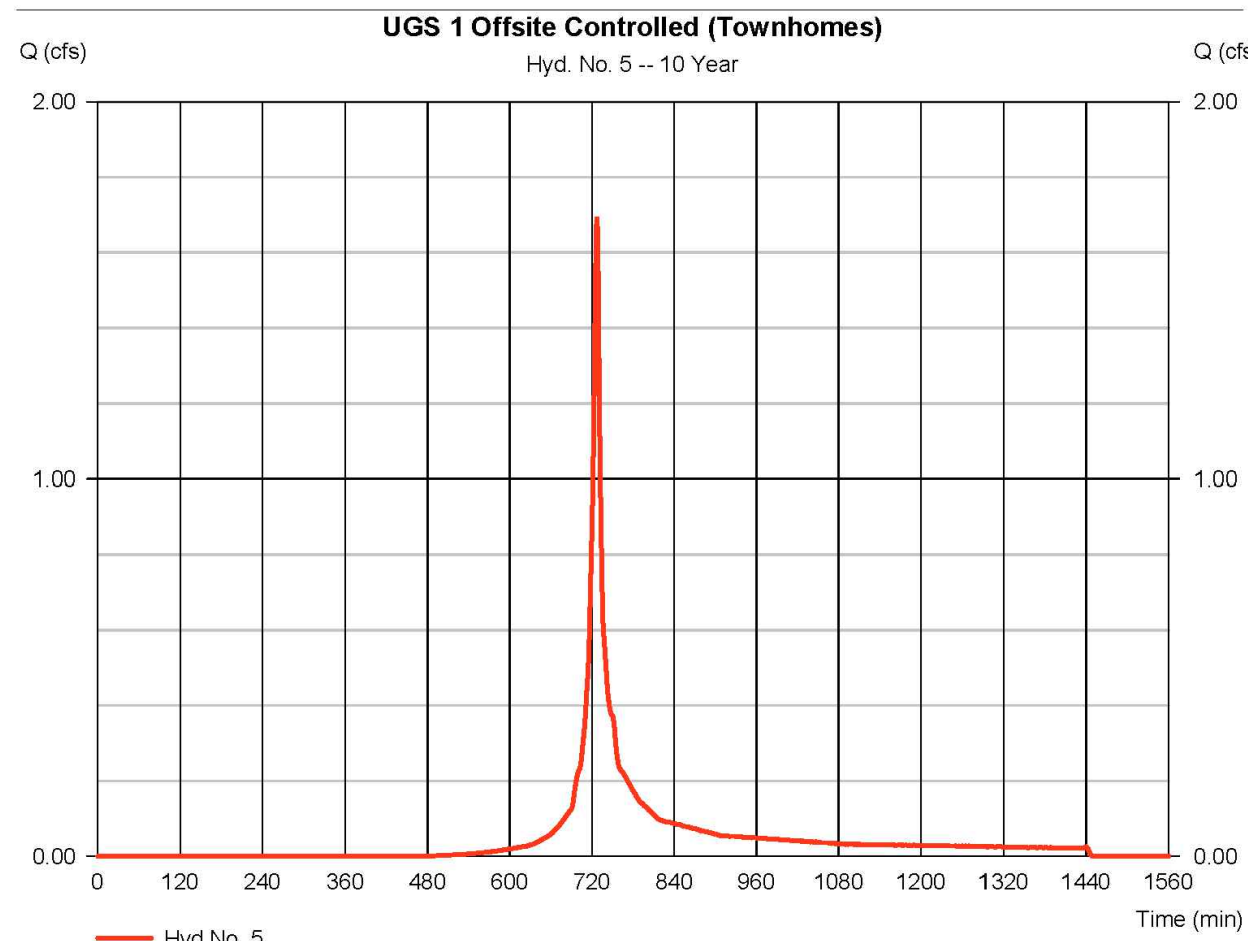
PRE DEV. ONSITE - 10-YEAR

Hydrograph type	=	SCS Runoff	Peak discharge
Storm frequency	=	10 yrs	Time to peak
Time interval	=	1 min	Hyd. volume
Drainage area	=	2.140 ac	Curve number
Basin Slope	=	0.0 %	Hydraulic length
Tc method	=	User	Time of conc. (T)
Total precip.	=	4.87 in	Distribution
Storm duration	=	NOAA_C(1min).CDS	Shape factor



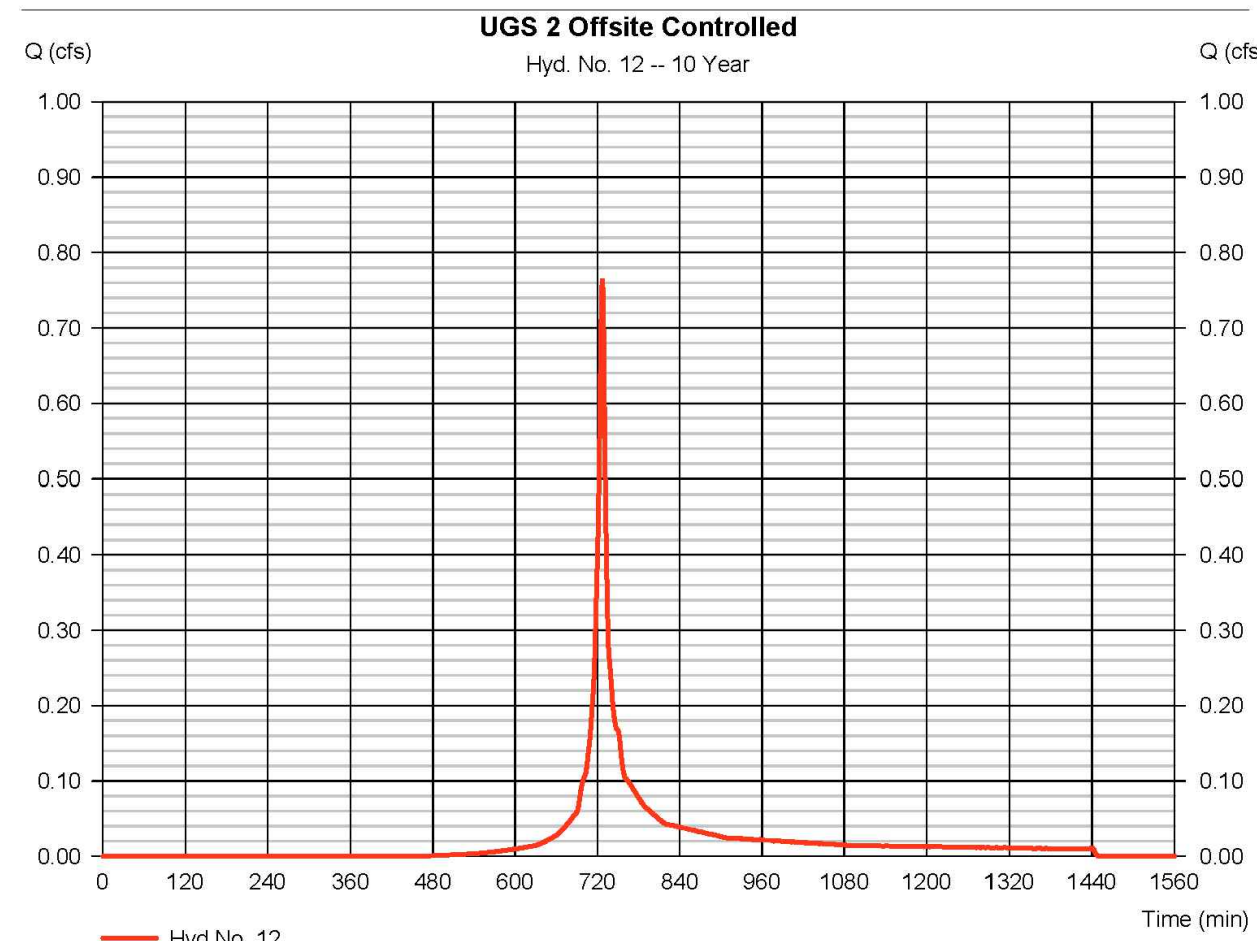
PRE DEV OFFSITE BYPASS/UGS 1 OFFSITE CONTROLLED 10-YEAR

Hydrograph type	= SCS Runoff	Peak discharge	= 1,693 cfs
Storm frequency	= 10 yrs	Time to peak	= 727 min
Time interval	= 1 min	Hyd. volume	= 4,675 cuf
Drainage area	= 0.480 ac	Curve number	= 78"
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 4.87 in	Distribution	= Custom
Storm duration	= NOAA_C(1min).CDS	Shape factor	= 484



PRE DEV OFFSITE BYPASS/UGS 2 OFFSITE CONTROLLED 10-YEAR

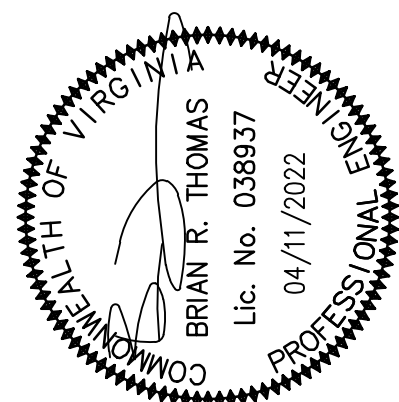
Hydrograph type	= SCS Runoff	Peak discharge	= 0.765 cfs
Storm frequency	= 10 yrs	Time to peak	= 727 min
Time interval	= 1 min	Hyd. volume	= 2,115 cu ft
Drainage area	= 0.210 ac	Curve number	= 79%
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 4.87 in	Distribution	= Custom
Storm duration	= NOAA_C(1min).CDS	Shape factor	= 484



OVERALL DEVELOPMENT HYDROGRAPHS 1

**FAIRFAX
PRESBYTERIAN
CHURCH**

CITY OF FAIRFAX, VIRGINIA

[illegible]

UGS 1 ROUTING - 1-YEAR

BMP/SWM UGS 1 Routings

Hyd. No. 8 -- 1 Year

Q (cfs)

3.00

2.00

1.00

0.00

0 120 240 360 480 600 720 840 960 1080 1200 1320 1440 1560

Time (min)

Hyd. No. 8

Hyd. No. 7

Total storage used = 1,690 cu ft

UGS 2 ROUTING - 1-YEAR

Routing UGS 2
Hyd. No 14 ~ 1 Year

Q (cfs)

2.00

1.00

0.00

0 120 240 360 480 600 720 840 960 1080 1200 1320 1440 1560

Time (min)

Hyd. No. 14

Hyd. No. 13

Total storage used = 1,140 cuft.

POST DEV. UNCONTROLLED - 1-YEAR

POST - Overall UNCONTROLLED

Hyd. No. 19 -- 1 Year

Q (cfs)

Time (min)

Hyd No. 19

Time (min)	Q (cfs)
0	0.00
600	0.00
650	0.00
680	0.05
700	0.40
710	0.80
720	0.95
730	0.80
750	0.15
800	0.05
1000	0.02
1400	0.01
1560	0.00

UGS 1 ROUTING - 2-YEAR

UGS 2 ROUTING - 2-YEAR

Routing UGS 2
Hyd. No. 14 - 2 Year

Q (cfs)

2.00

1.00

0.00

0 120 240 360 480 600 720 840 960 1080 1200 1320 1440 1560

Time (min)

Hyd. No. 14

Hyd. No. 13

Total storage used = 1,558 cu ft

POST DEV. UNCONTROLLED - 2-YEAR

POST - Overall UNCONTROLLED

Hyd. No. 19 -- 2 Year

Q (cfs)

Time (min)

Hyd. No. 19

UGS 1 ROUTING - 10-YEAR

BMP/SWM UGS 1 Routings

Hyd. No. 8 -- 10 Year

Q (cfs)

Time (min)

Hyd. No. 8

Hyd. No. 7

Total storage used is 2,674 cu ft

UGS 2 ROUTING - 10-YEAR

Routing UGS 2

Hyd. No. 14 -- 10 Year

Q (cfs)

3.00

2.00

1.00

0.00

0 120 240 360 480 600 720 840 960 1080 1200 1320 1440 1560

Time (min)

Hyd. No. 14

Hyd. No. 13

Total storage used = 2,262 cu ft

POST DEV. UNCONTROLLED - 10-YEAR

POST - Overall UNCONTROLLED
 Hyd. No. 19 -- 10 Year

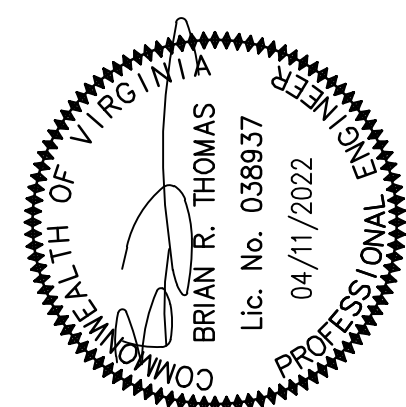
The graph displays the hydrograph for Hyd. No. 19 over a 1560-minute period. The y-axis represents flow rate Q in cfs, ranging from 0.00 to 3.00. The x-axis represents time in minutes, ranging from 0 to 1560. A single red line shows the flow rate, which remains near zero until about 600 minutes, then rises sharply to a peak of approximately 2.8 cfs at 720 minutes, before gradually declining back to near zero by 1440 minutes.

Time (min)	Flow Rate Q (cfs)
0	0.00
120	0.00
240	0.00
360	0.00
480	0.00
600	0.05
720	2.80
840	0.20
960	0.10
1080	0.05
1200	0.02
1320	0.01
1440	0.00
1560	0.00

OVERALL DEVELOPMENT HYDROGRAPHS 2

**FAIRFAX
PRESBYTERIAN
CHURCH**

CITY OF FAIRFAX, VIRGINIA

[illegible]

DESIGN GMP	DRAFT GMP
APPROVED	BRT
DATE JAN. 2021	
SCALE 1" = 100'	
HORIZ: 1" = 100'	
VERT: -- --	

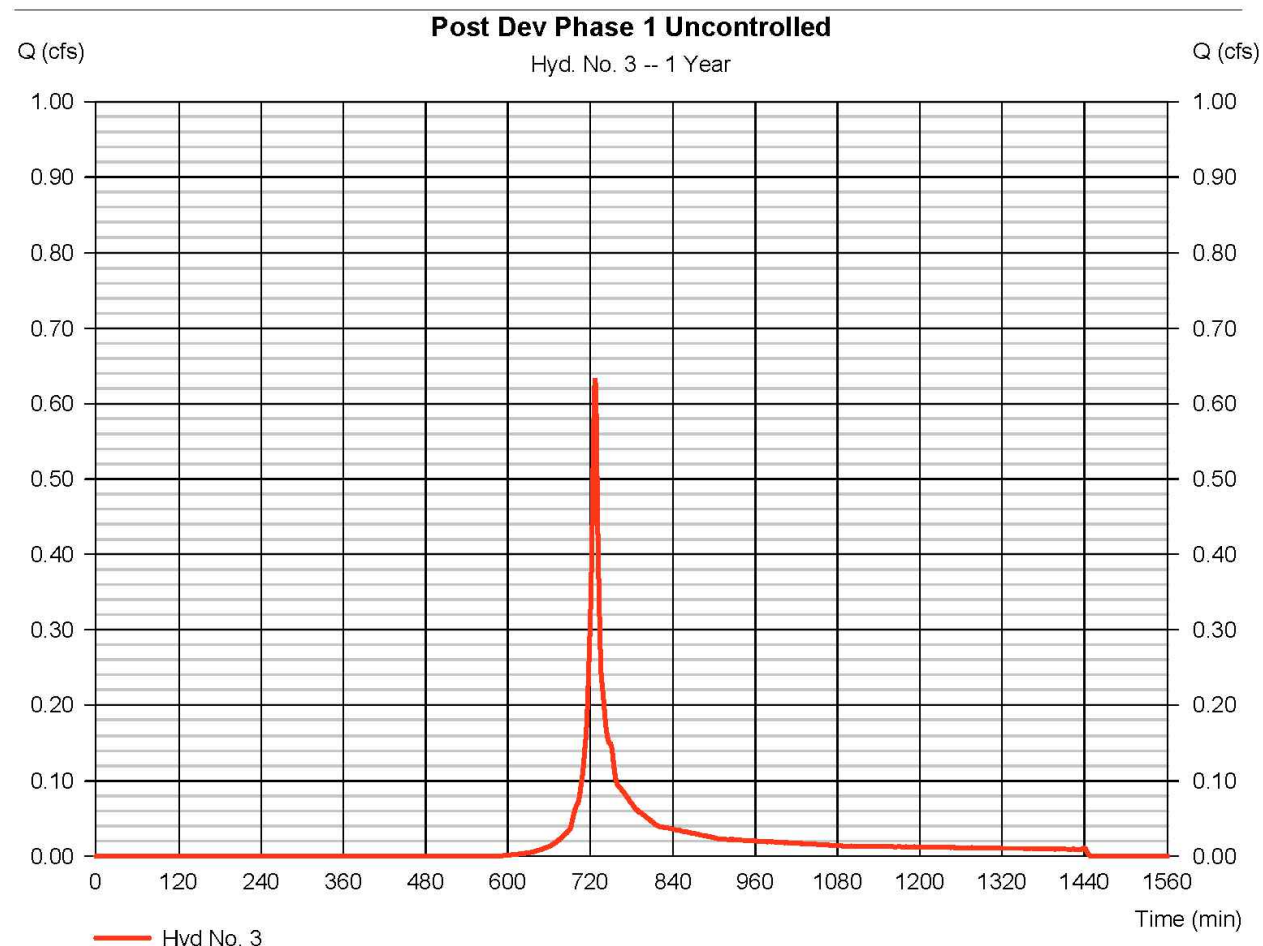
SHEET	OF
45	50

PRJ NO: 2017-2571
TYPE: MDP

REVISED	DATE	REVISIONS
0	00-00700/00-00500/YBEE-R0401/YBEE-R0301	Attached Xrefs: /SIGNATURE /SIGNATURE DATE

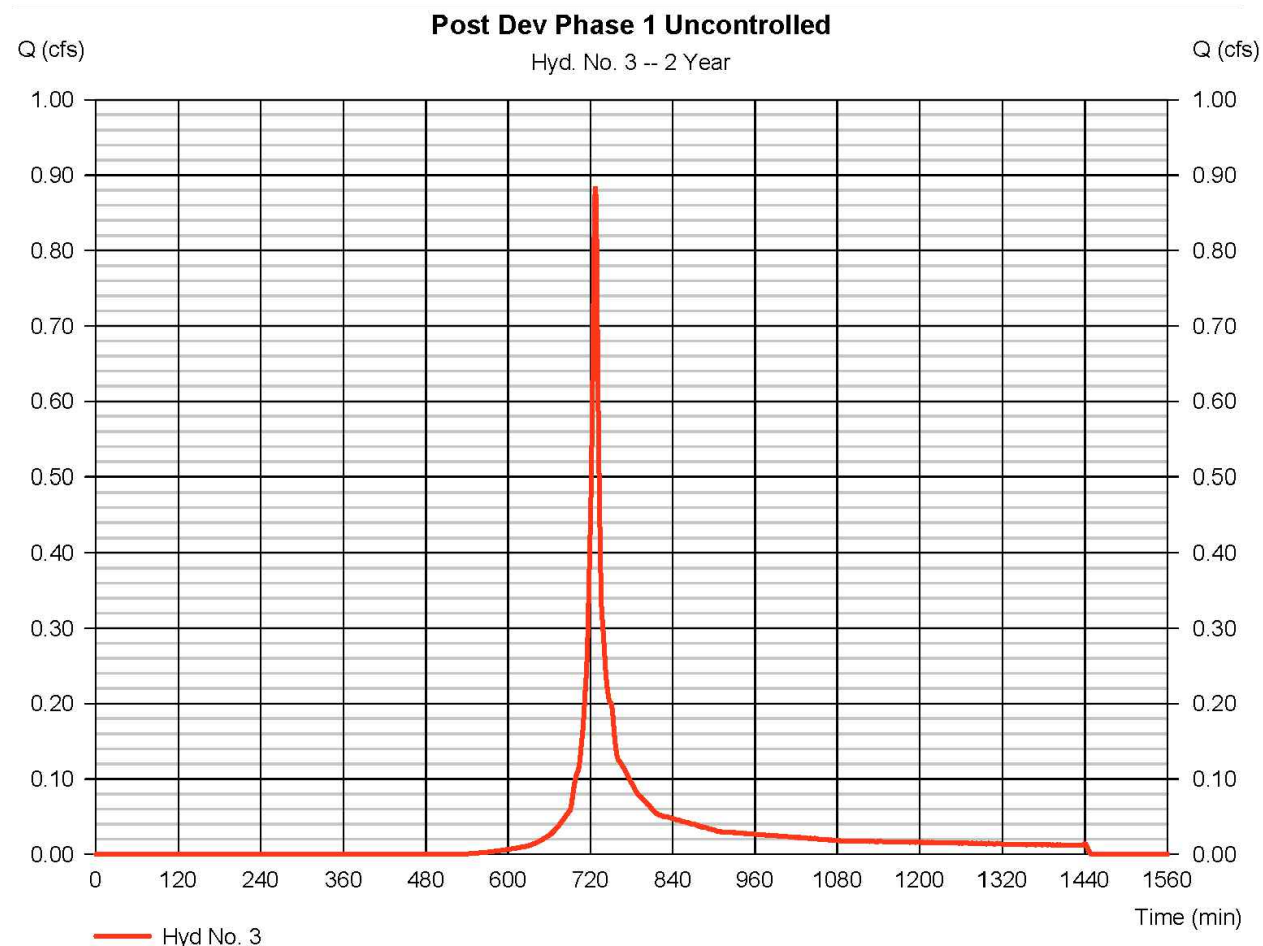
PHASE 1 POST DEV. UNCONTROLLED – 1-YEAR

Hydrograph type	= SCS Runoff	Peak discharge	= 0.633 cfs
Storm frequency	= 1 yrs	Time to peak	= 727 min
Time interval	= 1 min	Hyd. volume	= 1,750 cwt
Drainage area	= 0.430 ac	Curve number	= 82*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 2.62 in	Distribution	= Custom
Storm duration	= NOAA_C(1min).CDS	Shape factor	= 484



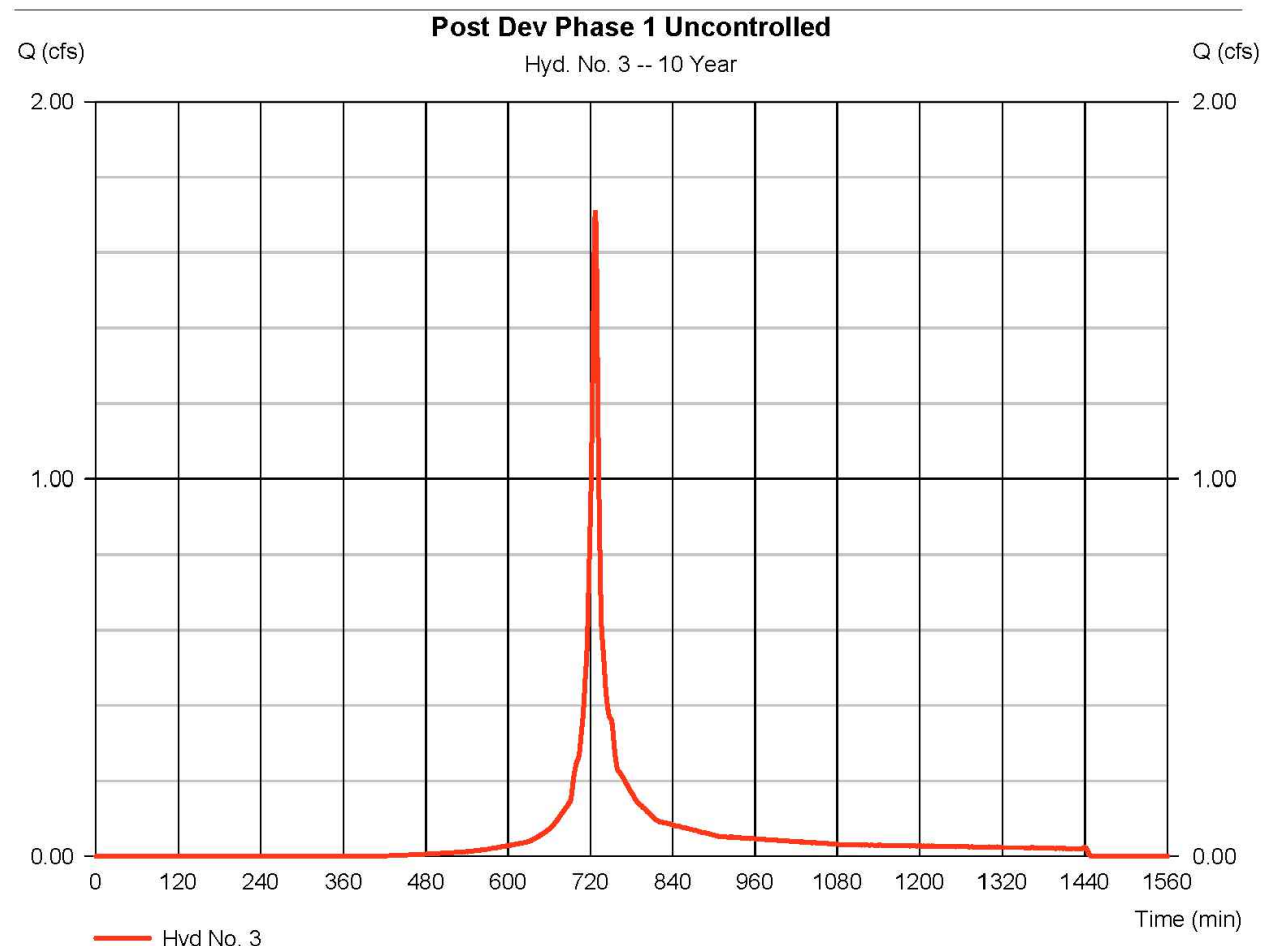
PHASE 1 POST DEV. UNCONTROLLED – 2-YEAR

Hydrograph type	= SCS Runoff	Peak discharge	= 0.885 cfs
Storm frequency	= 2 yrs	Time to peak	= 727 min
Time interval	= 1 min	Hyd. volume	= 2,437 cuf
Drainage area	= 0.430 ac	Curve number	= 82*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.17 in	Distribution	= Custom
Storm duration	= NOAA_C(1min).CDS	Shape factor	= 484

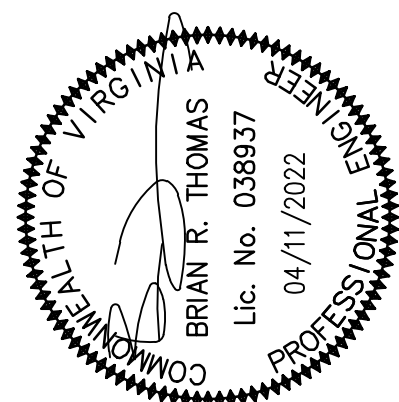


PHASE 1 POST DEV. UNCONTROLLED – 10-YEAR

Hydrograph type	= SCS Runoff	Peak discharge	= 1,711 cfs
Storm frequency	= 127 yr	Time to peak	= 70 min
Time interval	= 1 min	Hyd. volume	= 4,770 cft
Drainage area	= 0.430 ac	Curve number	= 82*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 4.87 in	Distribution	= Custom
Storm duration	= NOAA_C(1min).CDS	Shape factor	= 484

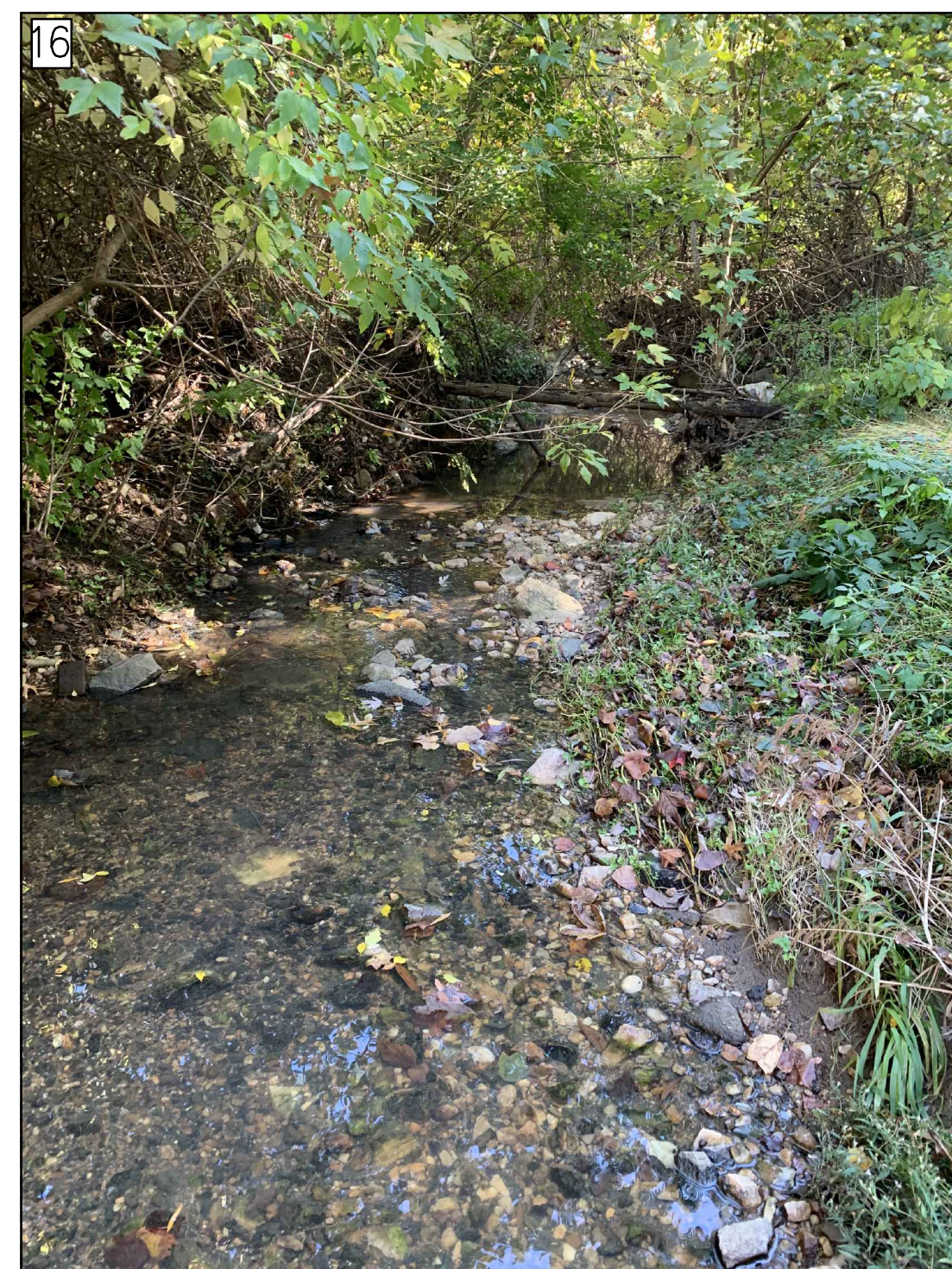
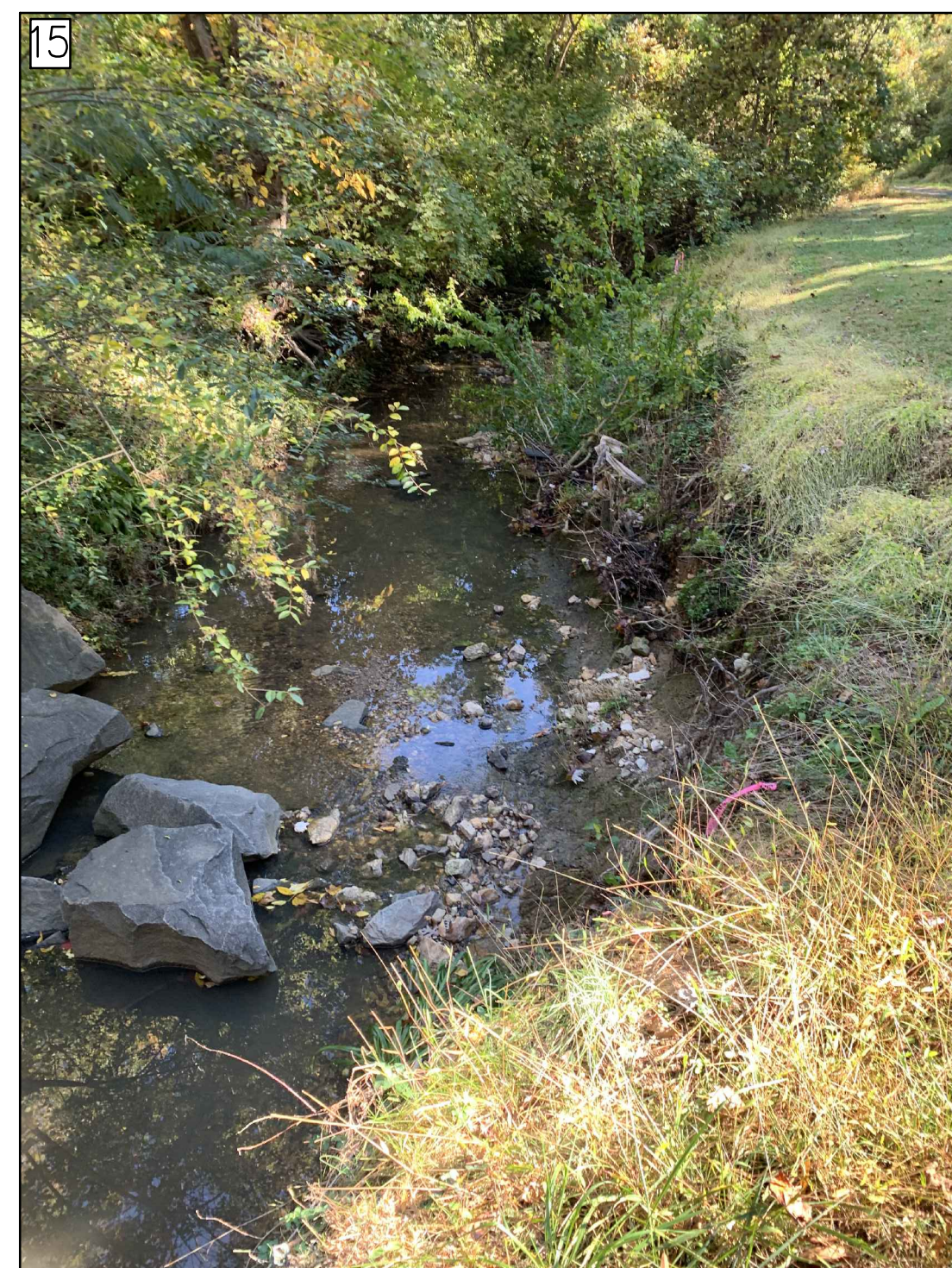
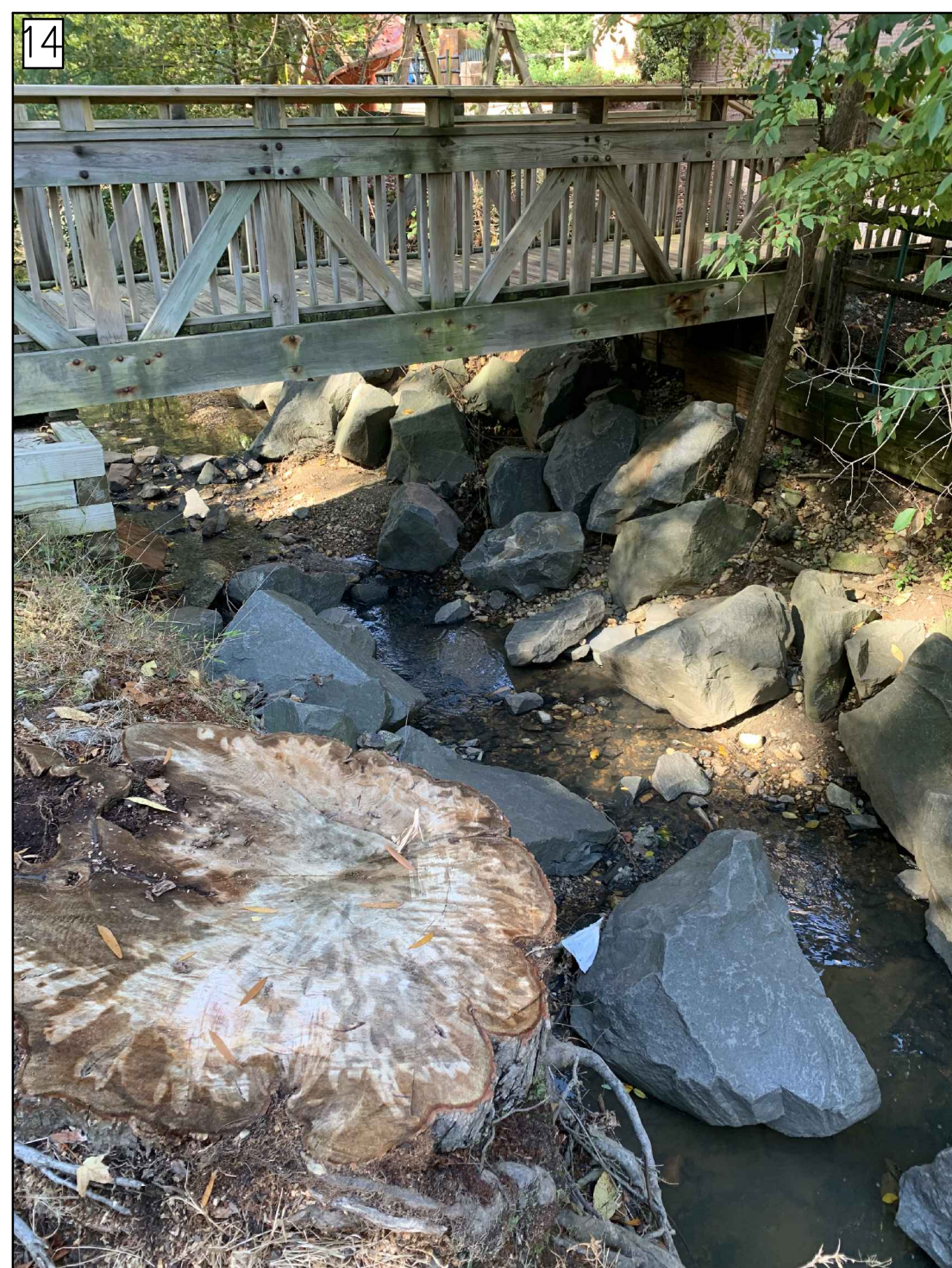


CITY OF FAIRFAX, VIRGINIA

[illegible]

DESIGN GMP	DRAFT GMP	DATE JAN. 2021	SCALE 1"=100'	VERT: ---
APPROVED BRT				
SHEET 46		OF 50		
PRJ NO: 2017-2570				
TYPE: MDP				

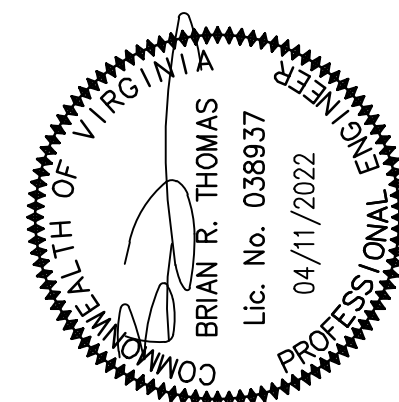
Attached Xrefs:

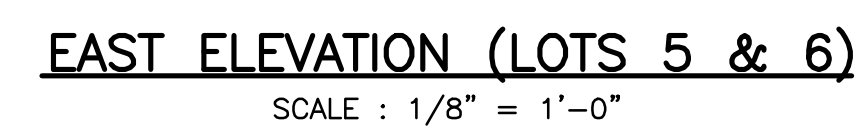
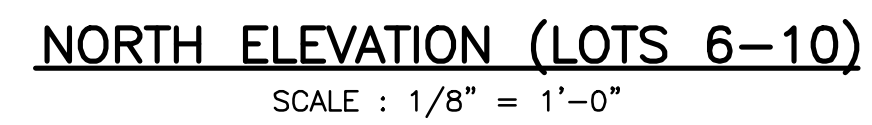
[illegible]

OUTFALL PHOTOS

**FAIRFAX
PRESBYTERIAN
CHURCH**

CITY OF FAIRFAX, VIRGINIA

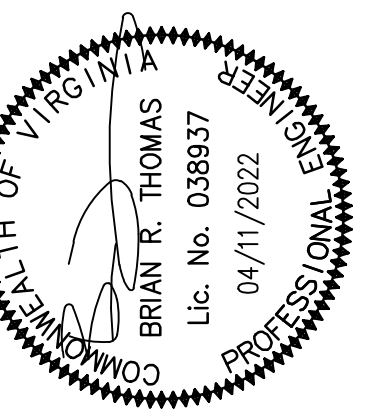
[illegible]

[illegible]

ARCHITECTURAL ELEVATIONS

**FAIRFAX
PRESBYTERIAN
CHURCH**

CITY OF FAIRFAX, VIRGINIA



Attached	Xrefs:	SEAL/SIGNATURE/SIGNATURE DATE	DATE



TYPICAL PHASE TWO PARKING LOT LIGHT & POLE
OR EQUIVALENT



TYPICAL PERGOLA
OR EQUIVALENT



TYPICAL REAR YARD PRIVACY FENCE
OR EQUIVALENT

VA DEQ STORMWATER DESIGN SPECIFICATION NO. 7 PERMEABLE PAVEMENT

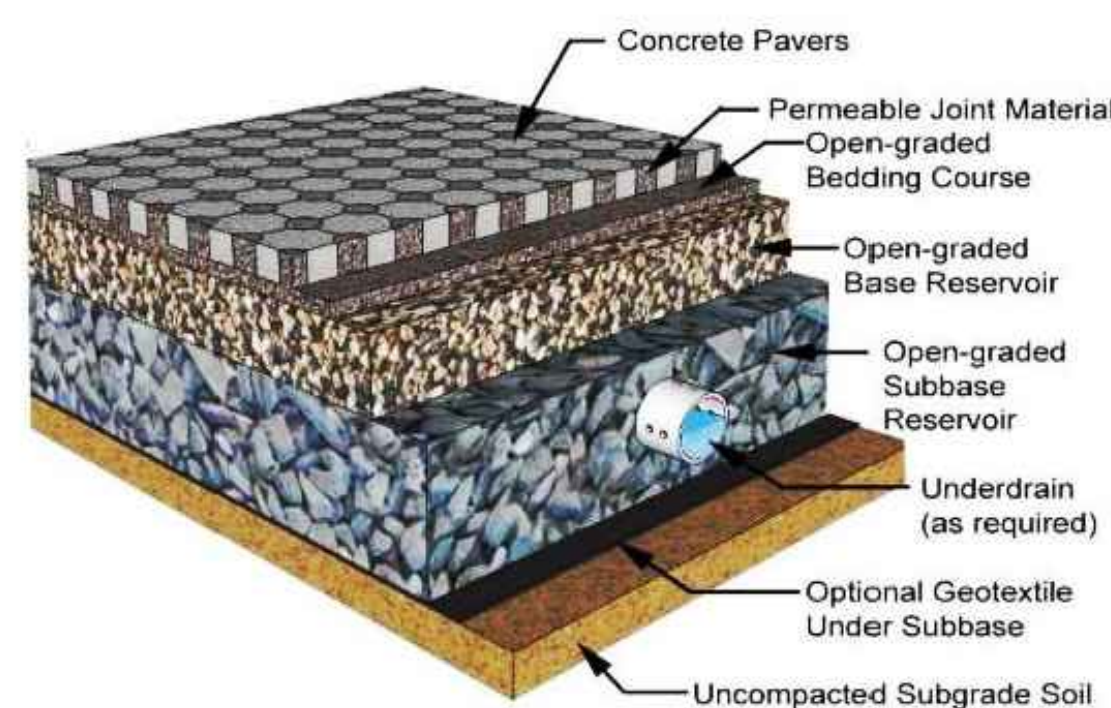


Figure 7.3. Typical Detail (Source: Smith, 2009)

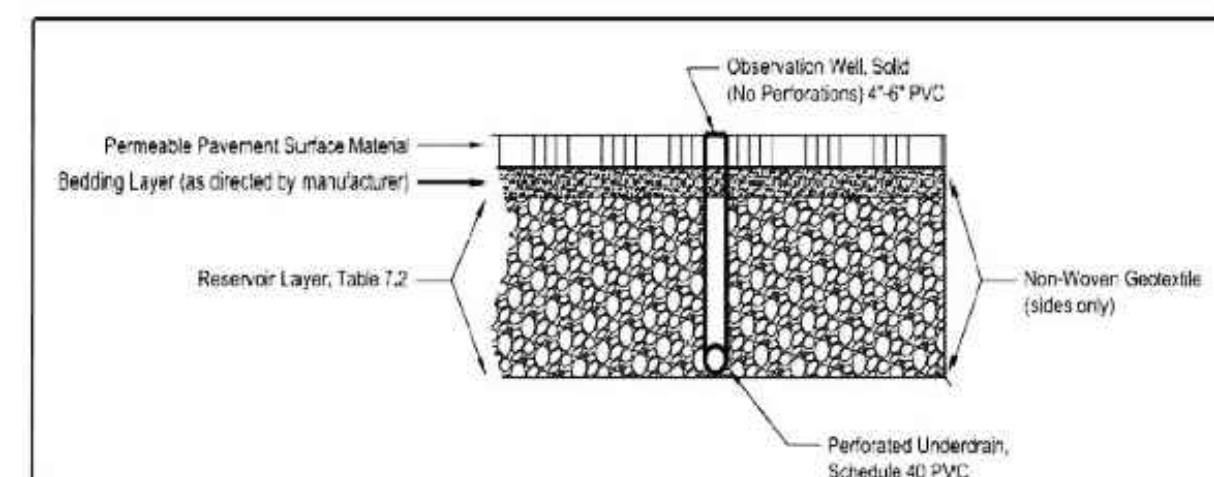


Figure 7.4. Typical Section Permeable Pavement Level 1

TYPICAL PERMEABLE PAVEMENT
OR EQUIVALENT



TYPICAL STAIR & PERGOLA LIGHTING
OR EQUIVALENT



TYPICAL SOLAR PATHWAY LIGHTING
OR EQUIVALENT



TYPICAL BIKE RACK
OR EQUIVALENT



TYPICAL BENCH
OR EQUIVALENT



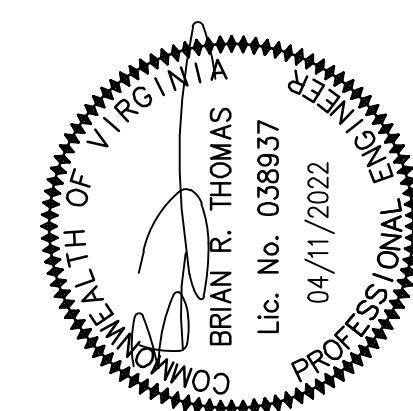
TYPICAL FRONT DOOR LIGHT
OR EQUIVALENT



TYPICAL BACK DOOR LIGHT
OR EQUIVALENT

FAIRFAX PRESBYTERIAN CHURCH

CITY OF FAIRFAX, VIRGINIA

[illegible]

	DESIGN	DRAFT	
	KJV	KJV	
	APPROVED	DATE	
	HMF	JAN. 2021	
SHEET		OF	
50		50	
PRJ NO: 2017-2570			
TYPE: MDP			

U	Attached	Yrefs:	SEAL	/SIGNATURE	/SIGNATURE	DATE
---	----------	--------	------	------------	------------	------