

Changed Pages

Part III, Appendix III-C.4

HydroCAD Model Outputs

**Part III
Attachment III-C
Appendix III-C.4**

HYDROCAD MODEL OUTPUTS

**Pescadito Environmental Resource Center
MSW No. 2374
Webb County, Texas**



**Initial Submittal March 2015
Supplement April 2015
Technically Complete March 11, 2016
Modified November 2016
Updated August 2017**


**Prepared for:
Rancho Viejo Waste Management, LLC
1116 Calle del Norte
Laredo, TX 78041**

**Prepared by:
APTIM Environmental and
Infrastructure, Inc.
(f/k/a CB&I Environmental and
Infrastructure, Inc.)**



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Dallas, TX 75234
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8-15-2017



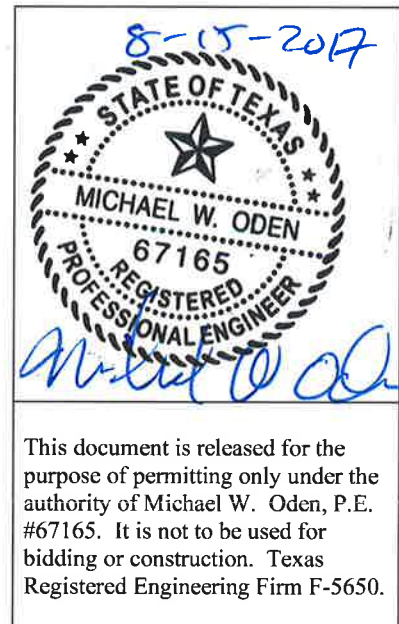
Michael W. Oden
Registered Professional Engineer
#67165

Michael W. Oden

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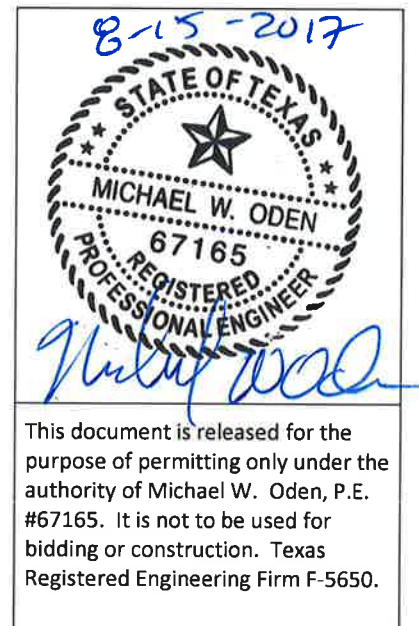


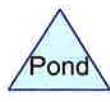
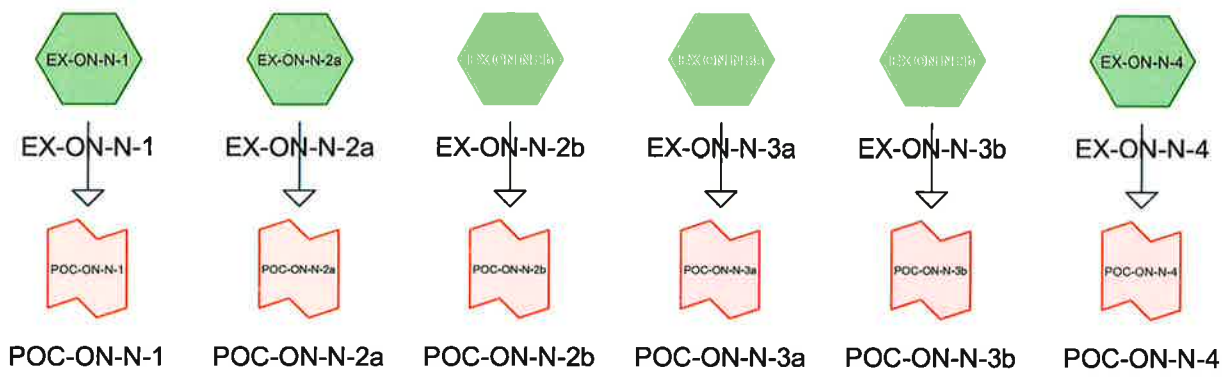
ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

1. **PRE-DEVELOPMENT CONDITIONS**
 - A. **NORTH AREA**
 - I. **STORMWATER RUN-ON MODEL**
 1. **MODEL DIAGRAM**
 2. **25-YEAR, 24-HOUR RESULTS**





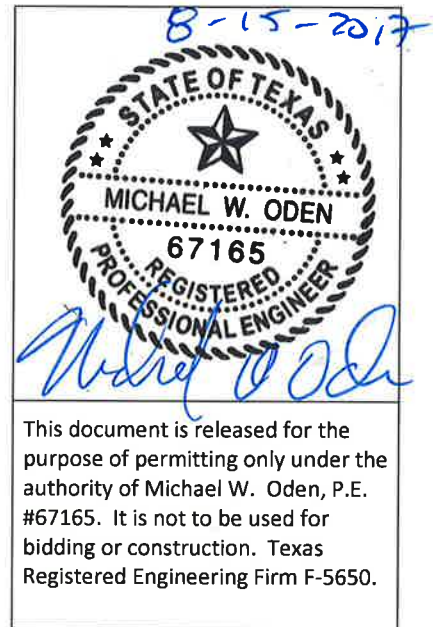
Routing Diagram for Pre-Development Conditions Runon - North
 Prepared by Chicago Bridge and Iron Company, Printed 8/9/2017
 HydroCAD® 10.00-15 s/n 04891 © 2015 HydroCAD Software Solutions LLC

ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

1. **PRE-DEVELOPMENT CONDITIONS**
 - A. **NORTH AREA**
 - I. **STORMWATER RUN-ON MODEL**
 1. **MODEL DIAGRAM**
 2. **25-YEAR, 24-HOUR RESULTS**



Pre-Development Conditions Runon - North

Prepared by Chicago Bridge and Iron Company

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Printed 8/9/2017

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
666.830	72	Desert shrub range, Fair, HSG B (EX-ON-N-1, EX-ON-N-2a, EX-ON-N-2b, EX-ON-N-3a, EX-ON-N-3b, EX-ON-N-4)
141.600	81	Desert shrub range, Fair, HSG C (EX-ON-N-1)
709.123	86	Desert shrub range, Fair, HSG D (EX-ON-N-1, EX-ON-N-2a, EX-ON-N-2b, EX-ON-N-3a, EX-ON-N-3b, EX-ON-N-4)
5.350	98	Water Surface, HSG D (EX-ON-N-1)
1,522.903	79	TOTAL AREA

Summary for Subcatchment EX-ON-N-1: EX-ON-N-1

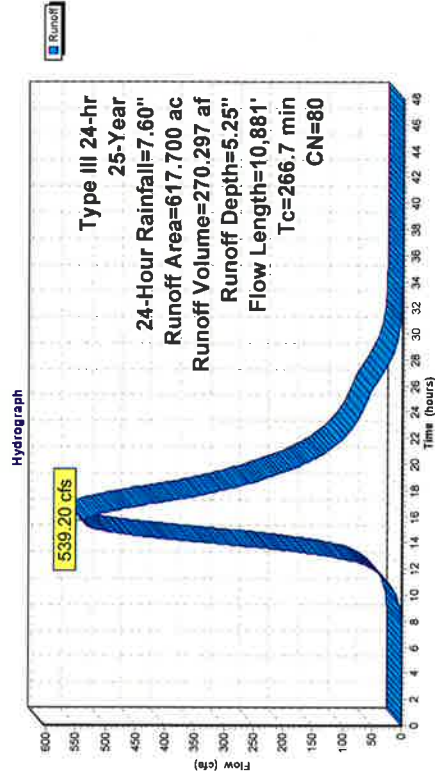
Runoff = 539.20 cfs @ 15.70 hrs, Volume= 270,297 af, Depth= 5.25"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
243.120	86	Desert shrub range, Fair, HSG D
5.350	98	Water Surface, HSG D
227.630	72	Desert shrub range, Fair, HSG B
141.600	81	Desert shrub range, Fair, HSG C
617.700	80	Weighted Average
612.350		99.13% Pervious Area
5.350		0.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		
202.3	10,581	0.0076	0.87		
266.7	10,881	Total			

Sheet Flow, Range n= 0.130 P2= 3.75" Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps
--

Subcatchment EX-ON-N-1: EX-ON-N-1



Summary for Subcatchment EX-ON-N-2a: EX-ON-N-2a

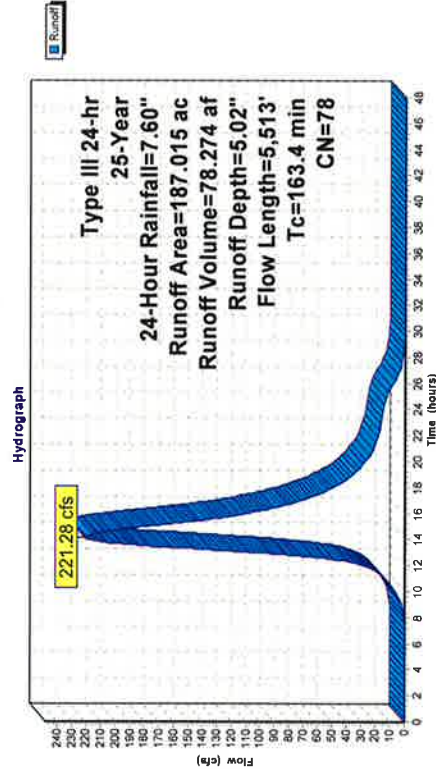
Runoff = 221.28 cfs @ 14.16 hrs, Volume= 78,274 af, Depth= 5.02"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
74.098	86	Desert shrub range, Fair, HSG D
112.917	72	Desert shrub range, Fair, HSG B
187.015	78	Weighted Average
187.015		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		
99.0	5,213	0.0077	0.88		
163.4	5,513	Total			

Sheet Flow, Range n= 0.130 P2= 3.75" Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps
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Subcatchment EX-ON-N-2a: EX-ON-N-2a



Summary for Subcatchment EX-ON-N-2b: EX-ON-N-2b

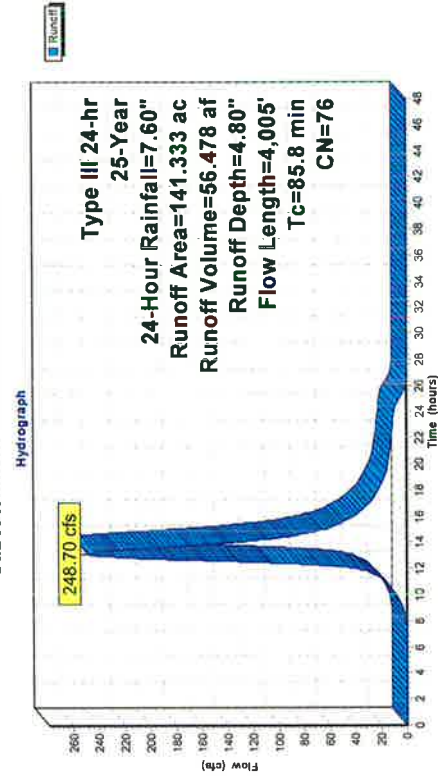
Runoff = 248.70 cfs @ 13.15 hrs, Volume= 56.478 af, Depth= 4.80"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
41.564	86	Desert shrub range, Fair, HSG D
99.769	72	Desert shrub range, Fair, HSG B
141.333	76	Weighted Average
141.333	100.00%	Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.7	300	0.0170	0.24		
65.1	3,705	0.0090	0.95		
85.8	4,005				Total

Sheet Flow,
 Range n= 0.130 P2= 3.75"
 Shallow Concentrated Flow,
 Nearly Bare & Untilled Kv= 10.0 lbs

Subcatchment EX-ON-N-2b: EX-ON-N-2b



Summary for Subcatchment EX-ON-N-3a: EX-ON-N-3a

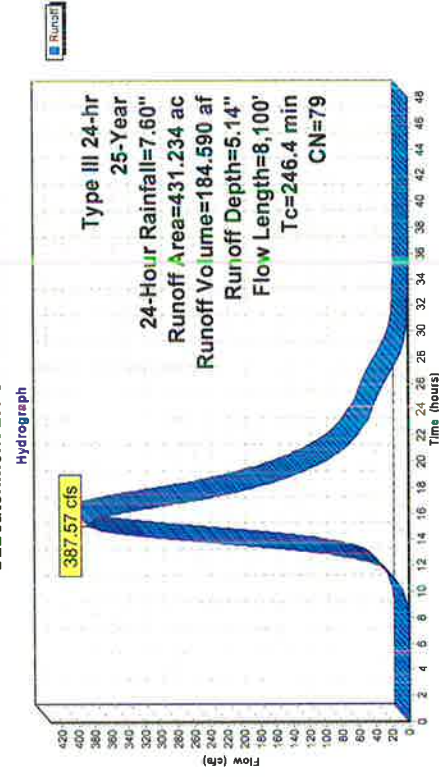
Runoff = 387.57 cfs @ 15.06 hrs, Volume= 184.590 af, Depth= 5.14"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
229.323	86	Desert shrub range, Fair, HSG D
201.911	72	Desert shrub range, Fair, HSG B
431.234	79	Weighted Average
431.234	100.00%	Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		
182.0	7,800	0.0051	0.71		
246.4	8,100				Total

Sheet Flow,
 Range n= 0.130 P2= 3.75"
 Shallow Concentrated Flow,
 Nearly Bare & Untilled Kv= 10.0 lbs

Subcatchment EX-ON-N-3a: EX-ON-N-3a



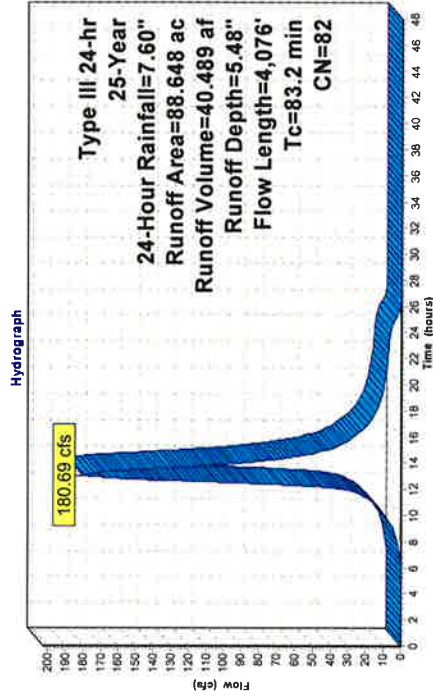
Summary for Subcatchment EX-ON-N-3b: EX-ON-N-3b

Runoff = 180.69 cfs @ 13.04 hrs, Volume= 40,489 af, Depth= 5.48"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
65.562	86	Desert shrub range, Fair, HSG D
23.086	72	Desert shrub range, Fair, HSG B
88.648	82	Weighted Average
88.648	100.00%	Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.3	300	0.0180	0.25		Sheet Flow, Range n= 0.130 P2= 3.75" Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps
62.9	3,776	0.0100	1.00		
83.2	4,076	Total			

Subcatchment EX-ON-N-3b: EX-ON-N-3b



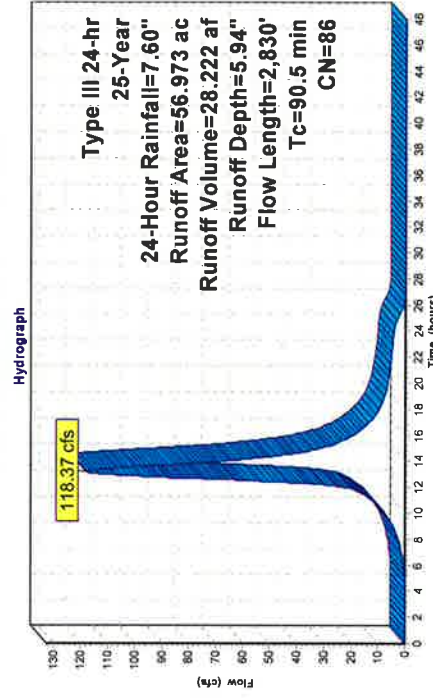
Summary for Subcatchment EX-ON-N-4: EX-ON-N-4

Runoff = 118.37 cfs @ 13.17 hrs, Volume= 28,222 af, Depth= 5.94"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
55.466	86	Desert shrub range, Fair, HSG D
1.517	72	Desert shrub range, Fair, HSG B
56.973	86	Weighted Average
56.973	100.00%	Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.6	300	0.0070	0.17		Sheet Flow, Range n= 0.130 P2= 3.75" Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps
60.9	2,530	0.0048	0.69		
90.5	2,830	Total			

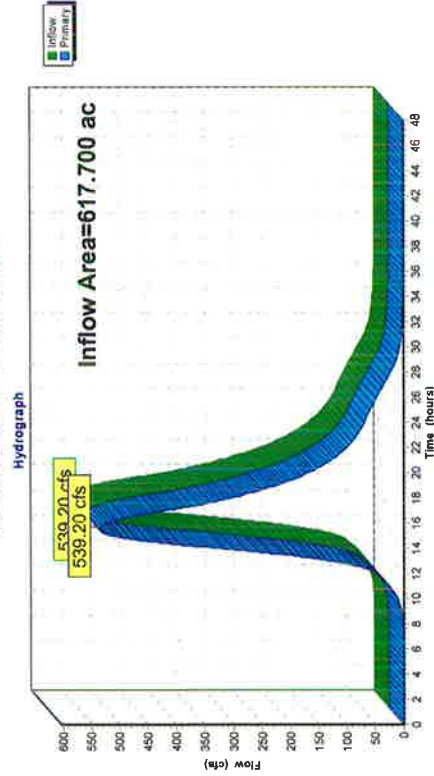
Subcatchment EX-ON-N-4: EX-ON-N-4



Summary for Link POC-ON-N-1: POC-ON-N-1

Inflow Area = 617.700 ac, 0.87% impervious, Inflow Depth = 5.25" for 25-Year, 24-Hour event
 Inflow = 539.20 cfs @ 15.70 hrs, Volume= 270.287 af
 Primary = 539.20 cfs @ 15.70 hrs, Volume= 270.287 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

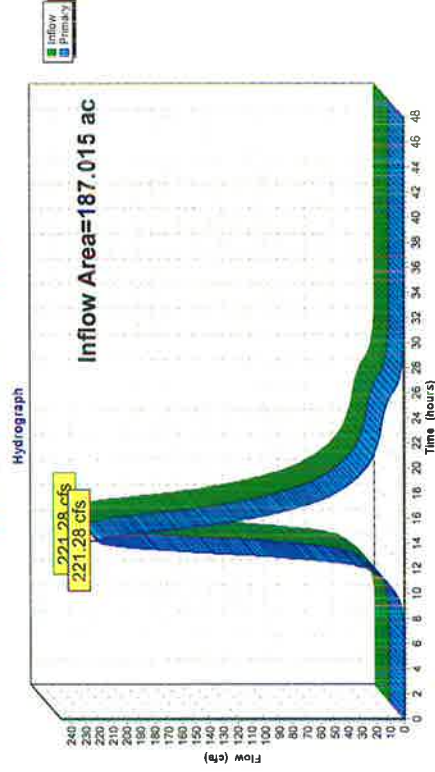
Link POC-ON-N-1: POC-ON-N-1



Summary for Link POC-ON-N-2a: POC-ON-N-2a

Inflow Area = 187.015 ac, 0.00% impervious, Inflow Depth = 5.02" for 25-Year, 24-Hour event
 Inflow = 221.28 cfs @ 14.16 hrs, Volume= 78.274 af
 Primary = 221.28 cfs @ 14.16 hrs, Volume= 78.274 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-ON-N-2a: POC-ON-N-2a

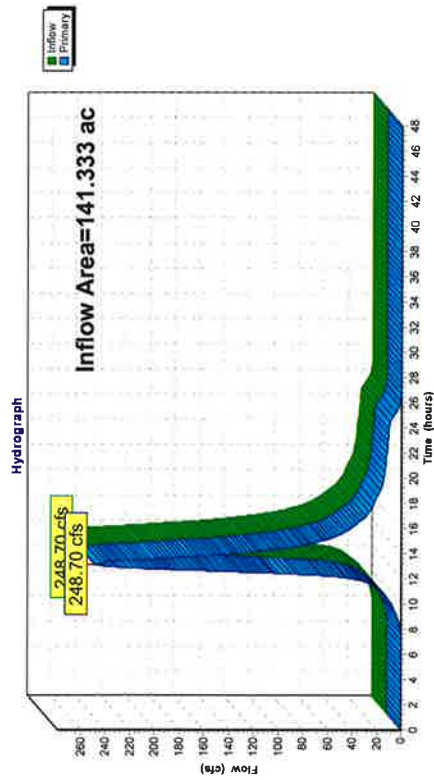


Summary for Link POC-ON-N-2b: POC-ON-N-2b

Inflow Area = 141.333 ac, 0.00% Impervious, Inflow Depth = 4.80" for 25-Year, 24-Hour event
Inflow = 248.70 cfs @ 13.15 hrs, Volume= 56.478 af
Primary = 248.70 cfs @ 13.15 hrs, Volume= 56.478 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-ON-N-2b: POC-ON-N-2b

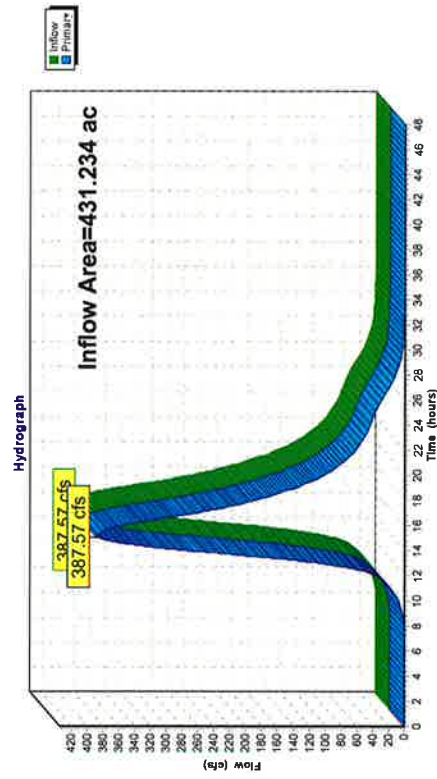


Summary for Link POC-ON-N-3a: POC-ON-N-3a

Inflow Area = 431.234 ac, 0.00% Impervious, Inflow Depth = 5.14" for 25-Year, 24-Hour event
Inflow = 387.57 cfs @ 15.06 hrs, Volume= 184.590 af
Primary = 387.57 cfs @ 15.06 hrs, Volume= 184.590 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

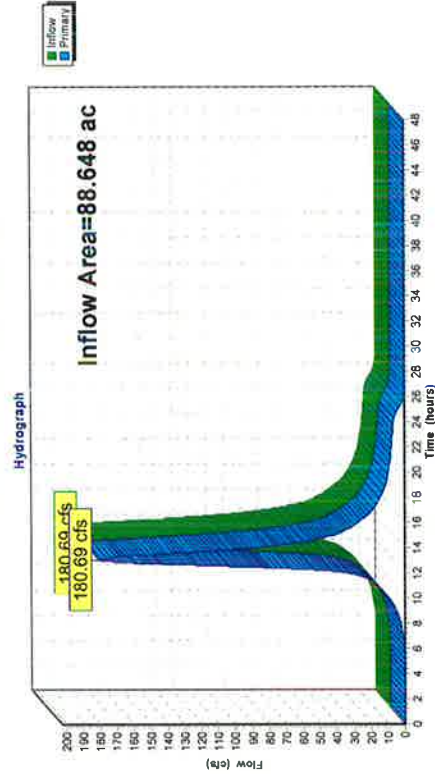
Link POC-ON-N-3a: POC-ON-N-3a



Summary for Link POC-ON-N-3b: POC-ON-N-3b

Inflow Area = 88.648 ac, 0.00% Impervious, Inflow Depth = 5.48" for 25-Year, 24-Hour event
 Inflow = 180.69 cfs @ 13.04 hrs, Volume= 40.489 af
 Primary = 180.69 cfs @ 13.04 hrs, Volume= 40.489 af, Atten= 0%, Lags= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

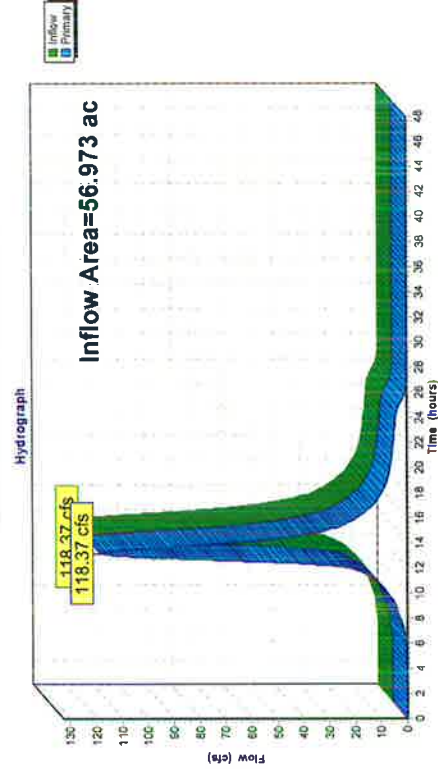
Link POC-ON-N-3b: POC-ON-N-3b



Summary for Link POC-ON-N-4: POC-ON-N-4

Inflow Area = 56.973 ac, 0.00% Impervious, Inflow Depth = 5.94" for 25-Year, 24-Hour event
 Inflow = 118.37 cfs @ 13.17 hrs, Volume= 28.222 af
 Primary = 118.37 cfs @ 13.17 hrs, Volume= 28.222 af, Atten= 0%, Lags= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-ON-N-4: POC-ON-N-4

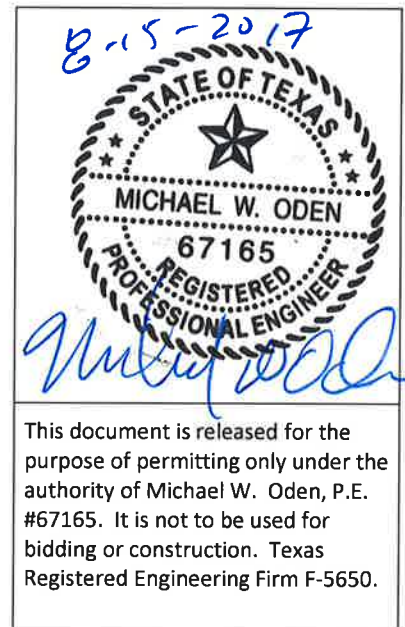


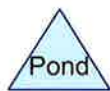
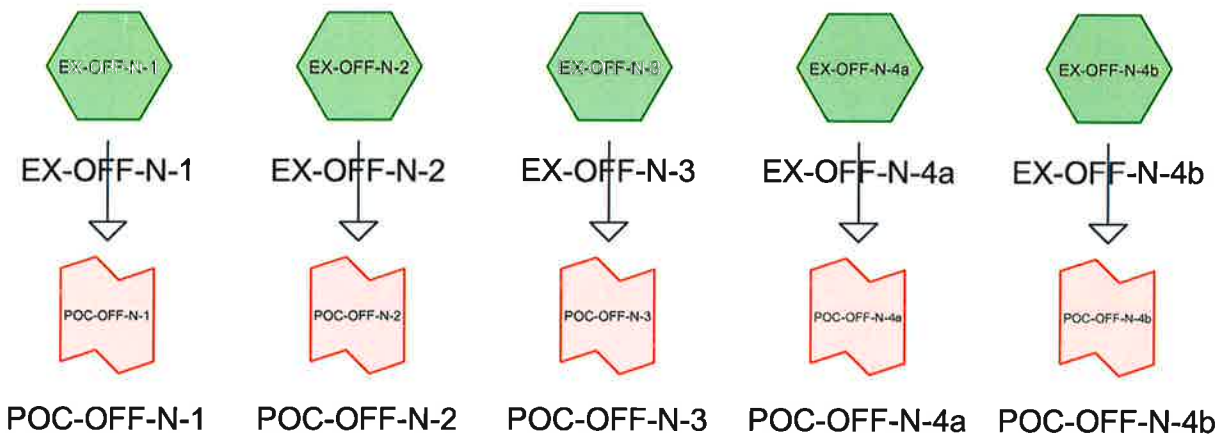
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APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

1. **PRE-DEVELOPMENT CONDITIONS**
 - A. **NORTH AREA**
 - II. **STORMWATER RUN-OFF MODEL**
 1. **MODEL DIAGRAM**
 2. **25-YEAR, 24-HOUR RESULTS**





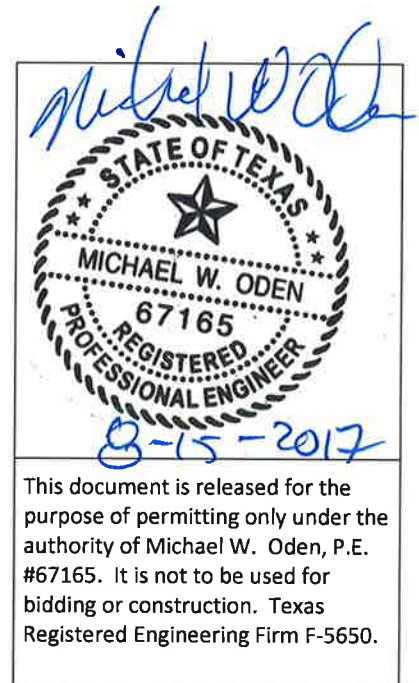
Routing Diagram for Pre-Development Conditions Runoff - North
 Prepared by Chicago Bridge and Iron Company, Printed 8/9/2017
 HydroCAD® 10.00-15 s/n 04891 © 2015 HydroCAD Software Solutions LLC

ATTACHMENT III-C

APPENDIX III-C.4

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Pre-Development Conditions Runoff - North

Prepared by Chicago Bridge and Iron Company

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
636.827	72	Desert shrub range, Fair, HSG B (EX-OFF-N-1, EX-OFF-N-2, EX-OFF-N-3, EX-OFF-N-4b)
145.330	81	Desert shrub range, Fair, HSG C (EX-OFF-N-1)
1,215.686	86	Desert shrub range, Fair, HSG D (EX-OFF-N-1, EX-OFF-N-2, EX-OFF-N-3, EX-OFF-N-4a, EX-OFF-N-4b)
5.350	98	Water Surface, HSG D (EX-OFF-N-1)
2,003.193	81	TOTAL AREA

Summary for Subcatchment EX-OFF-N-1: EX-OFF-N-1

Runoff = 531.41 cfs @ 16.27 hrs, Volume= 306.293 af, Depth= 5.25"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

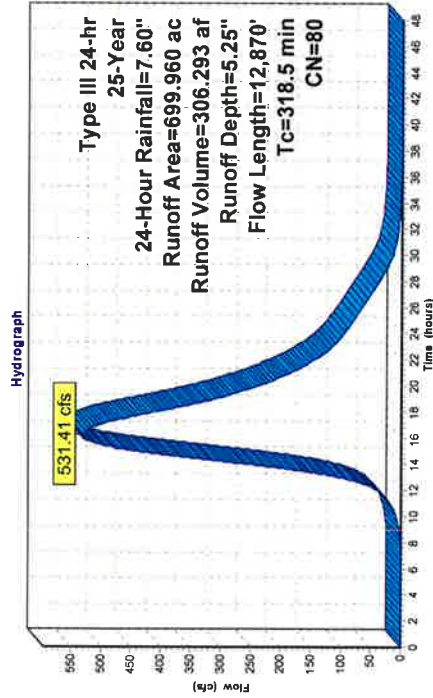
Area (ac)	CN	Description
298.700	86	Desert shrub range, Fair, HSG D
145.330	81	Desert shrub range, Fair, HSG C
250.580	72	Desert shrub range, Fair, HSG B
5.350	98	Water Surface, HSG D
699.960	80	Weighted Average
694.610		99.24% Pervious Area
5.350		0.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		

Sheet Flow, Range n= 0.130 P2= 3.75"
Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps

318.5 12,870 Total

Subcatchment EX-OFF-N-1: EX-OFF-N-1



Summary for Subcatchment EX-OFF-N-2: EX-OFF-N-2

Runoff = 470.74 cfs @ 15.65 hrs, Volume= 235.623 af, Depth= 5.48"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

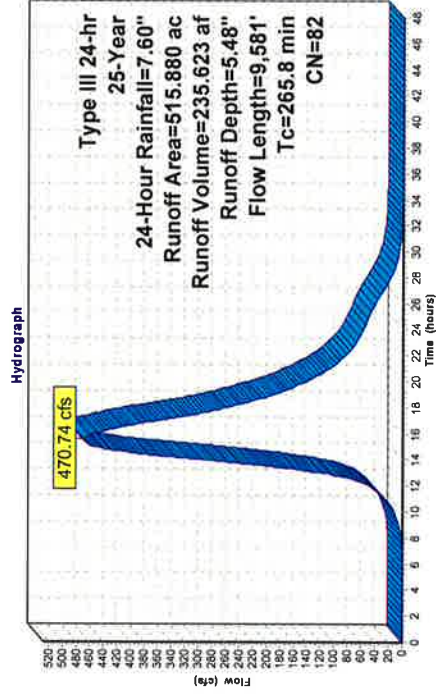
Area (ac)	CN	Description
362.630	86	Desert shrub range, Fair, HSG D
153.250	72	Desert shrub range, Fair, HSG B
515.880	82	Weighted Average
515.880		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		

Sheet Flow, Range n= 0.130 P2= 3.75"
Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps

265.8 9,581 Total

Subcatchment EX-OFF-N-2: EX-OFF-N-2



Summary for Subcatchment EX-OFF-N-3: EX-OFF-N-3

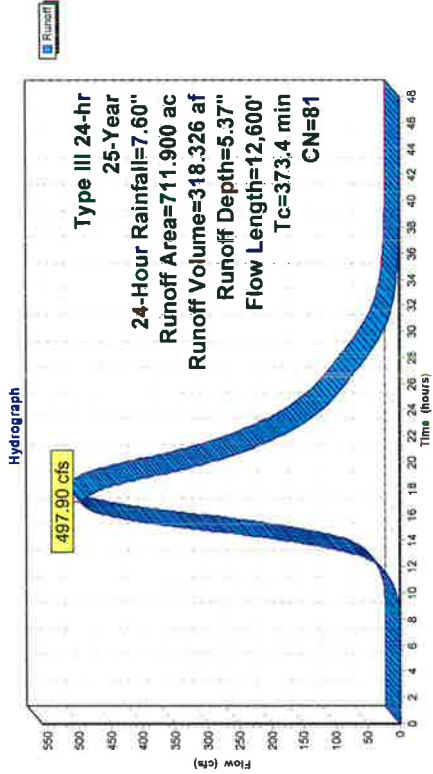
Runoff = 497.90 cfs @ 17.01 hrs, Volume= 318,326 af, Depth= 5.37"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
480.420	86	Desert shrub range, Fair, HSG D
231.480	72	Desert shrub range, Fair, HSG B
711.900	81	Weighted Average
711.900		100.00% Pervious Area

Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08	
309.0	12,300	0.0044	0.66	
373.4				Total

Sheet Flow, Range n= 0.130 P2= 3.75"
Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps

Subcatchment EX-OFF-N-3: EX-OFF-N-3



Summary for Subcatchment EX-OFF-N-4a: EX-OFF-N-4a

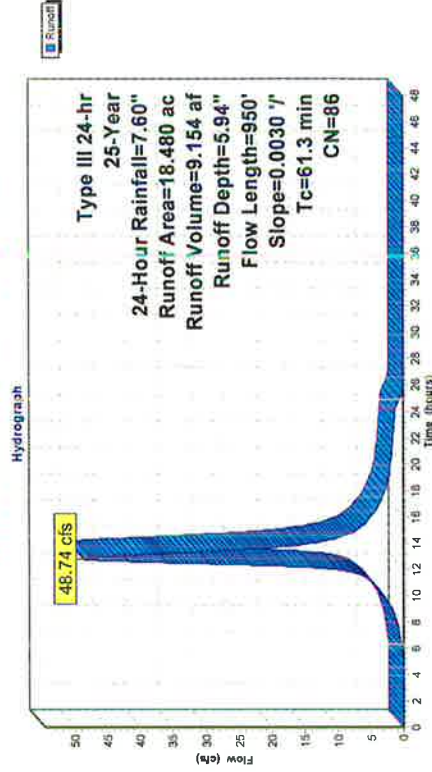
Runoff = 48.74 cfs @ 12.80 hrs, Volume= 9,154 af, Depth= 5.94"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
18.480	86	Desert shrub range, Fair, HSG D
18.480		100.00% Pervious Area

Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
41.5	300	0.0030	0.12	
19.8	650	0.0030	0.55	
61.3				Total

Sheet Flow, Range n= 0.130 P2= 3.75"
Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps

Subcatchment EX-OFF-N-4a: EX-OFF-N-4a



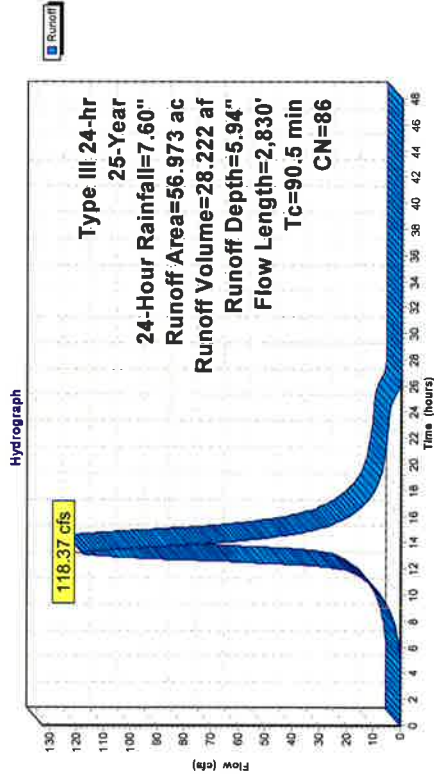
Summary for Subcatchment EX-OFF-N-4b: EX-OFF-N-4b

Runoff = 118.37 cfs @ 13.17 hrs, Volume= 28,222 af, Depth= 5.94"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
55.456	86	Desert shrub range, Fair, HSG D
1.517	72	Desert shrub range, Fair, HSG B
56.973	86	Weighted Average
56.973	100.00%	Pervious Area

Tc	Length (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.6	300	0.0070	0.17		Sheet Flow
					Range n= 0.130 P2= 3.75"
					Shallow Concentrated Flow,
					Nearly Bare & Untilled Kv= 10.0 fps
90.5	2,830	Total			

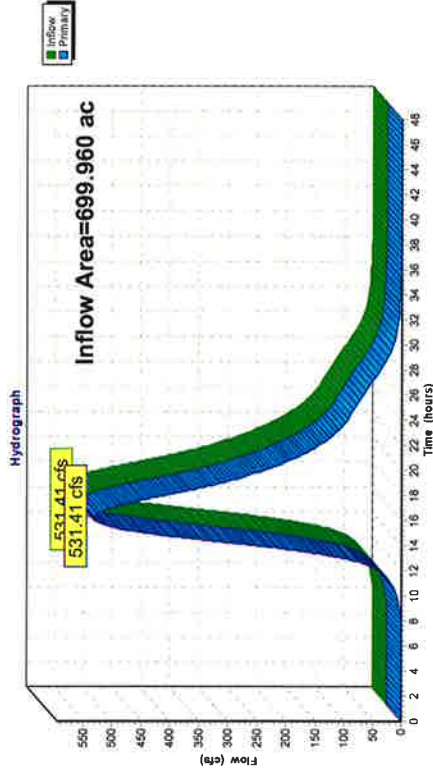
Subcatchment EX-OFF-N-4b: EX-OFF-N-4b



Summary for Link POC-OFF-N-1: POC-OFF-N-1

Inflow Area = 699.960 ac, 0.76% Impervious, Inflow Depth = 5.25" for 25-Year, 24-Hour event
 Inflow = 531.41 cfs @ 16.27 hrs, Volume= 306,293 af
 Primary = 531.41 cfs @ 16.27 hrs, Volume= 306,293 af, Atten= 0%, Lags= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

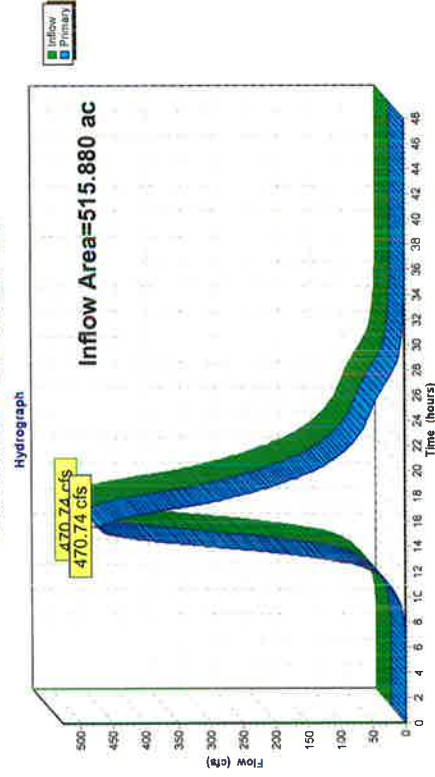
Link POC-OFF-N-1: POC-OFF-N-1



Summary for Link POC-OFF-N-2: POC-OFF-N-2

Inflow Area = 515.880 ac, 0.00% Impervious, Inflow Depth = 5.48" for 25-Year, 24-Hour event
 Inflow = 470.74 cfs @ 15.65 hrs, Volume= 235.623 af
 Primary = 470.74 cfs @ 15.65 hrs, Volume= 235.623 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

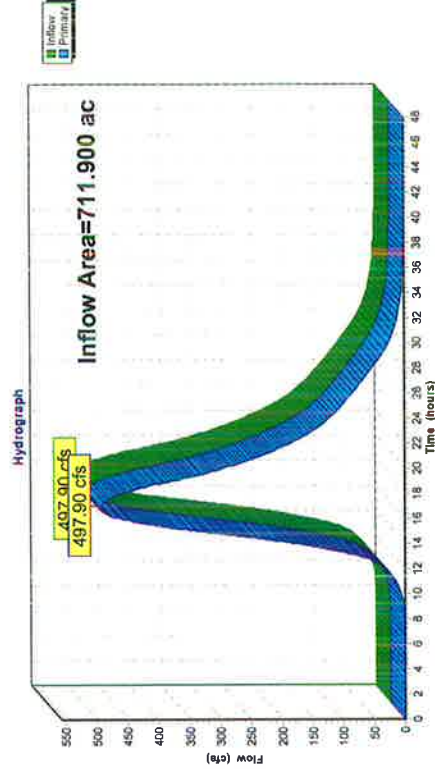
Link POC-OFF-N-2: POC-OFF-N-2



Summary for Link POC-OFF-N-3: POC-OFF-N-3

Inflow Area = 711.900 ac, 0.00% Impervious, Inflow Depth = 5.37" for 25-Year, 24-Hour event
 Inflow = 497.90 cfs @ 17.01 hrs, Volume= 318.326 af
 Primary = 497.90 cfs @ 17.01 hrs, Volume= 318.326 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-OFF-N-3: POC-OFF-N-3

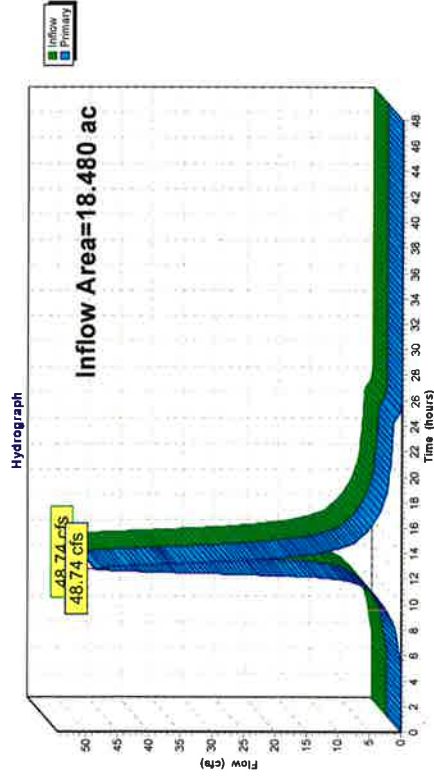


Summary for Link POC-OFF-N-4a: POC-OFF-N-4a

Inflow Area = 18.480 ac, 0.00% impervious, Inflow Depth = 5.94" for 25-Year, 24-Hour event
 Inflow = 48.74 cfs @ 12.80 hrs, Volume= 9.154 af
 Primary = 48.74 cfs @ 12.80 hrs, Volume= 9.154 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-OFF-N-4a: POC-OFF-N-4a

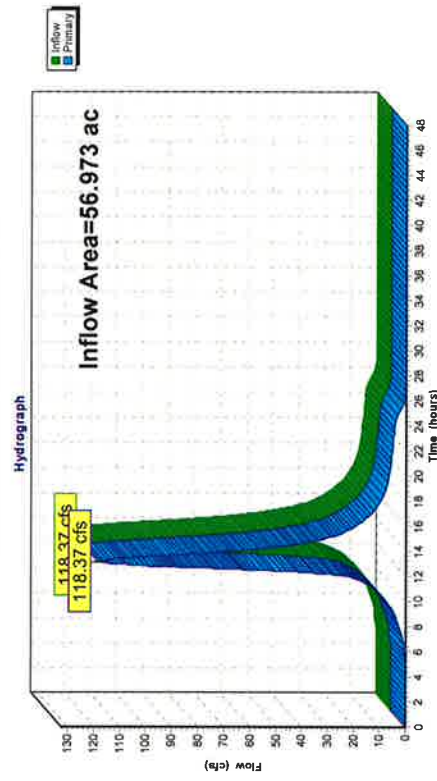


Summary for Link POC-OFF-N-4b: POC-OFF-N-4b

Inflow Area = 56.973 ac, 0.00% impervious, Inflow Depth = 5.94" for 25-Year, 24-Hour event
 Inflow = 118.37 cfs @ 13.17 hrs, Volume= 28.222 af
 Primary = 118.37 cfs @ 13.17 hrs, Volume= 28.222 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-OFF-N-4b: POC-OFF-N-4b



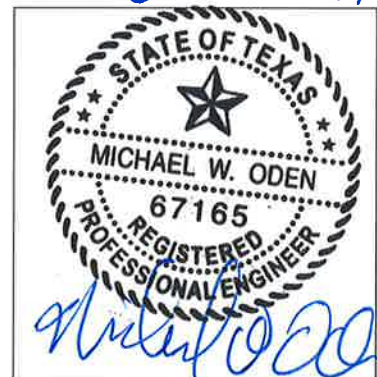
ATTACHMENT III-C

APPENDIX III-C.4

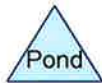
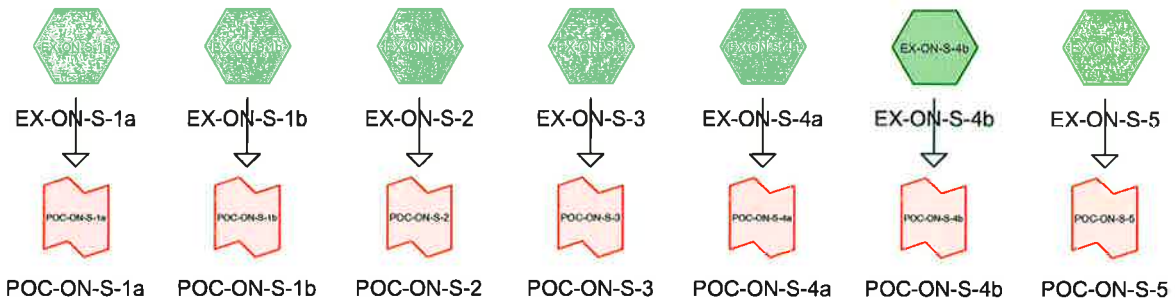
HYDROCAD MODEL OUTPUT FILES

- 1. **PRE-DEVELOPMENT CONDITIONS**
 - B. **SOUTH AREA**
 - I. **STORMWATER RUN-ON MODEL**
 - 1. **MODEL DIAGRAM**
 - 2. **25-YEAR, 24-HOUR RESULTS**

8-15-2017



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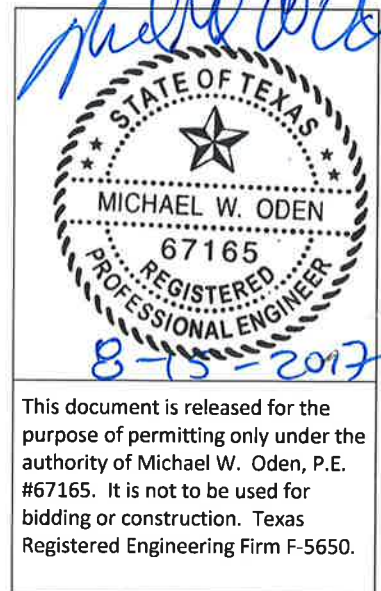
Routing Diagram for Pre-Development Conditions Runon - South
 Prepared by Chicago Bridge and Iron Company, Printed 8/9/2017
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ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

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Pre-Development Conditions Runon - South

Prepared by Chicago Bridge and Iron Company

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1,590.088	72	Desert shrub range, Fair, HSG B (EX-ON-S-1b, EX-ON-S-2, EX-ON-S-3, EX-ON-S-4b, EX-ON-S-5)
936.150	81	Desert shrub range, Fair, HSG C (EX-ON-S-1a, EX-ON-S-1b)
6,786.571	86	Desert shrub range, Fair, HSG D (EX-ON-S-1a, EX-ON-S-1b, EX-ON-S-2, EX-ON-S-3, EX-ON-S-4a, EX-ON-S-4b, EX-ON-S-5)
38.754	98	Water Surface, HSG D (EX-ON-S-1a, EX-ON-S-1b)
9,351.563	83	TOTAL AREA

Summary for Subcatchment EX-ON-S-1a: EX-ON-S-1a

Runoff = 4,136.29 cfs @ 16.07 hrs, Volume= 2,246,193 af, Depth= 5.83"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

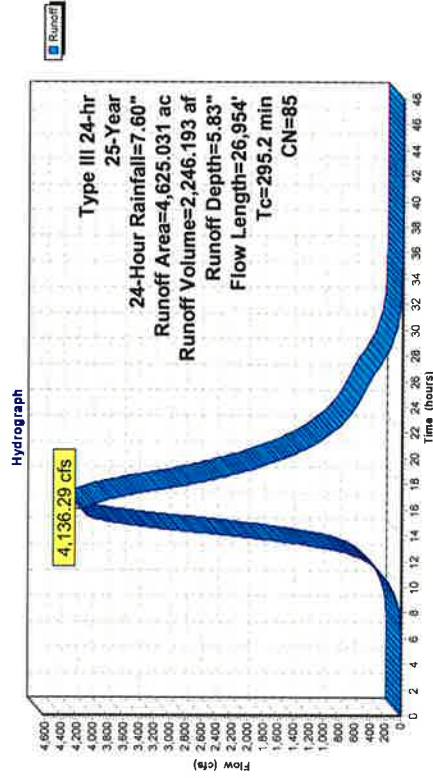
Area (ac)	CN	Description
33.404	98	Water Surface, HSG D
790.820	81	Desert shrub range, Fair, HSG C
3,800.807	86	Desert shrub range, Fair, HSG D
4,625.031	65	Weighted Average
4,591.627		99.28% Pervious Area
33.404		0.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.9	300	0.0167	0.24		

Sheet Flow, Range n= 0.130 P2= 3.75"
 Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps
 Channel Flow, Area= 16.0 sf Perim= 12.9' r= 1.24' n= 0.035

295.2 26,954 Total

Subcatchment EX-ON-S-1a: EX-ON-S-1a



Summary for Subcatchment EX-ON-S-1b: EX-ON-S-1b

Runoff = 531.41 cfs @ 16.27 hrs, Volume= 306,293 af, Depth= 5.25"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

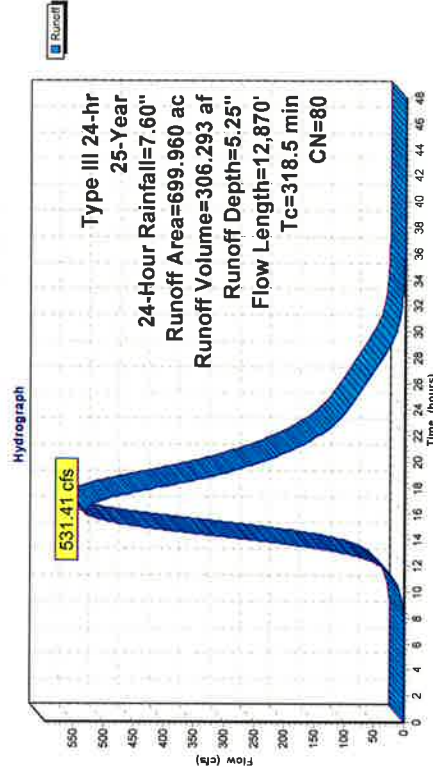
Area (ac)	CN	Description
298.700	86	Desert shrub range, Fair, HSG D
145.330	81	Desert shrub range, Fair, HSG C
250.580	72	Desert shrub range, Fair, HSG B
5.350	98	Water Surface, HSG D
699.960	80	Weighted Average
694.610		99.24% Pervious Area
5.350		0.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		

Sheet Flow, Range n= 0.130 P2= 3.75"
 Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps

318.5 12,870 Total

Subcatchment EX-ON-S-1b: EX-ON-S-1b



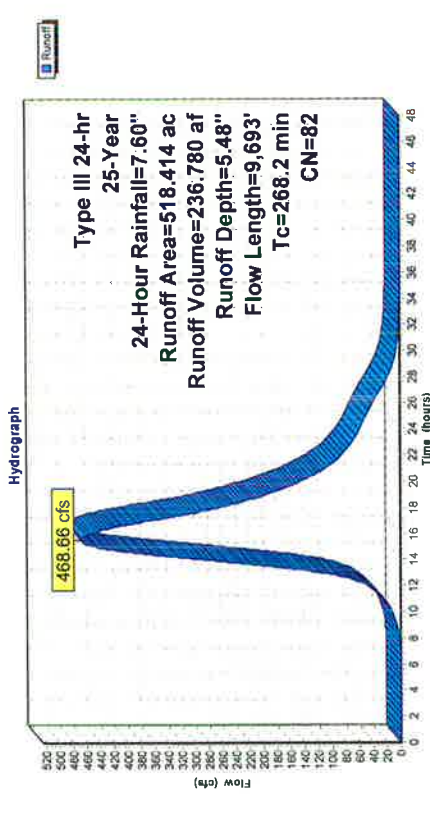
Summary for Subcatchment EX-ON-S-2: EX-ON-S-2

Runoff = 468.66 cfs @ 15.50 hrs, Volume= 236,780 af, Depth= 5.48"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
365.164	86	Desert shrub range, Fair, HSG D
153.250	72	Desert shrub range, Fair, HSG B
518.414	82	Weighted Average
518.414	100.00%	Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		
203.8	9,393	0.0059	0.77		
268.2	9,693	Total			

Subcatchment EX-ON-S-2: EX-ON-S-2



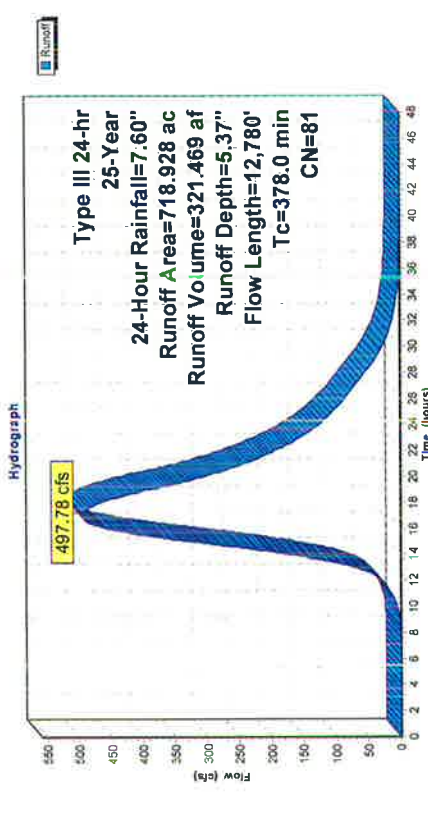
Summary for Subcatchment EX-ON-S-3: EX-ON-S-3

Runoff = 497.78 cfs @ 17.22 hrs, Volume= 321,469 af, Depth= 5.37"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
487.448	86	Desert shrub range, Fair, HSG D
231.480	72	Desert shrub range, Fair, HSG B
718.928	81	Weighted Average
718.928	100.00%	Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		
313.6	12,480	0.0044	0.66		
378.0	12,780	Total			

Subcatchment EX-ON-S-3: EX-ON-S-3

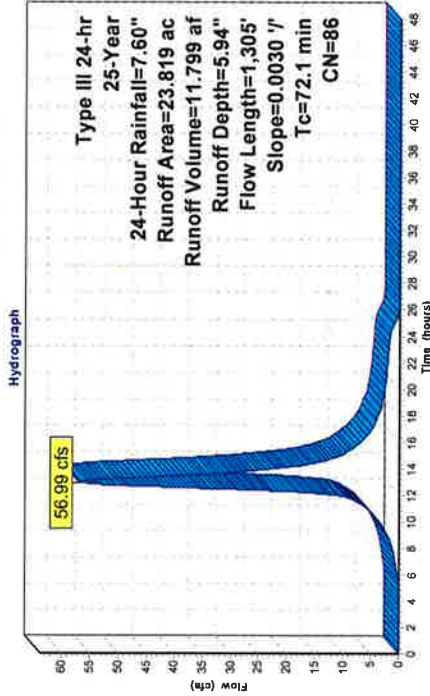


Summary for Subcatchment EX-ON-S-4a: EX-ON-S-4a

Runoff = 56.99 cfs @ 12.90 hrs, Volume= 11,799 af, Depth= 5.94"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description			
23.819	86	Desert shrub range, Fair, HSG D			
23.819		100.00% Pervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
41.5	300	0.0030	0.12		
Sheet Flow, Range n= 0.130 P2= 3.75"					
Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps					
72.1	1,305	Total			

Subcatchment EX-ON-S-4a: EX-ON-S-4a

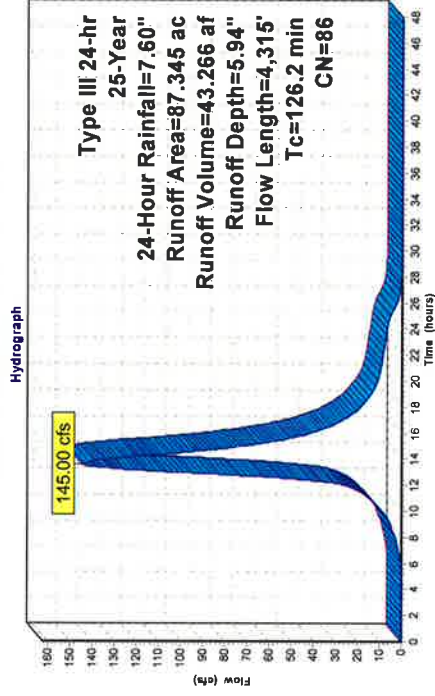


Summary for Subcatchment EX-ON-S-4b: EX-ON-S-4b

Runoff = 145.00 cfs @ 13.60 hrs, Volume= 43,266 af, Depth= 5.94"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description			
85.828	86	Desert shrub range, Fair, HSG D			
1.517	72	Desert shrub range, Fair, HSG B			
87.345	86	Weighted Average			
87.345		100.00% Pervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.6	300	0.0070	0.17		
Sheet Flow, Range n= 0.130 P2= 3.75"					
Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps					
126.2	4,315	Total			

Subcatchment EX-ON-S-4b: EX-ON-S-4b



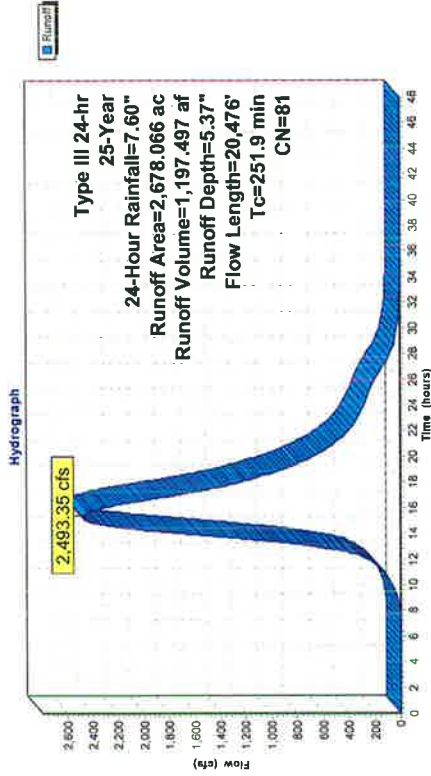
Summary for Subcatchment EX-ON-S-5: EX-ON-S-5

Runoff = 2,493.35 cfs @ 15.39 hrs, Volume= 1,197,497 af, Depth= 5.37"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
953.261	72	Desert shrub range, Fair, HSG B
1,724.805	86	Desert shrub range, Fair, HSG D
2,678.066	81	Weighted Average
2,678.066	100.00%	Pervious Area

Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.9	300	0.0333	0.32	Sheet Flow, Range n= 0.130 P2= 3.75"
164.1	9,183	0.0087	0.93	Shallow Concentrated Flow, Nearly Bare & Untilled KV= 10.0 fps
71.9	10,993	0.0027	2.55	Channel Flow, Area= 16.0 sf Perim= 12.9' I= 1.24' n= 0.035
251.9	20,476	Total		

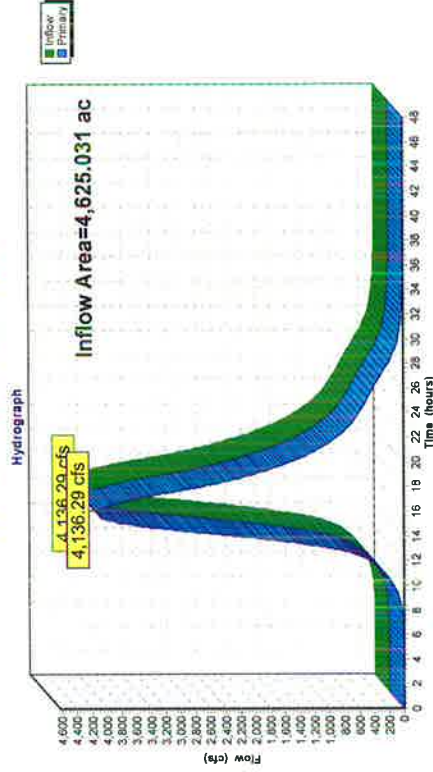
Subcatchment EX-ON-S-5: EX-ON-S-5



Summary for Link POC-ON-S-1a: POC-ON-S-1a

Inflow Area = 4,625.031 ac, 0.72% impervious, Inflow Depth = 5.83" for 25-Year, 24-Hour event
 Inflow = 4,136.29 cfs @ 16.07 hrs, Volume= 2,246,193 af
 Primary = 4,136.29 cfs @ 16.07 hrs, Volume= 2,246,193 af, Attenu= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-ON-S-1a: POC-ON-S-1a

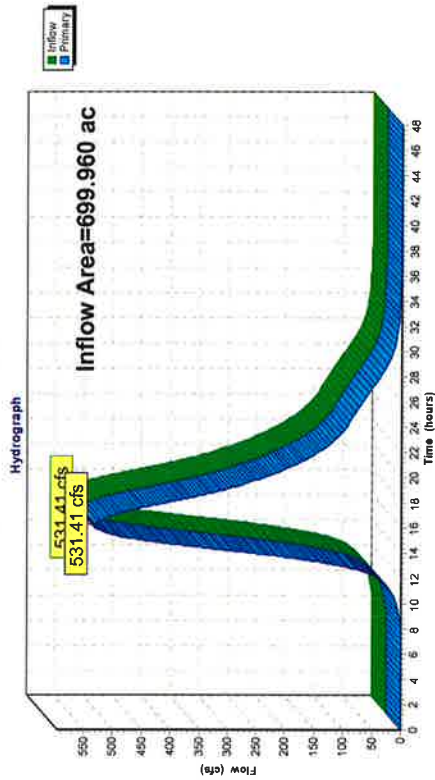


Summary for Link POC-ON-S-1b: POC-ON-S-1b

Inflow Area = 699.960 ac, 0.76% Impervious, Inflow Depth = 5.25" for 25-Year, 24-Hour event
 Inflow = 531.41 cfs @ 16.27 hrs, Volume= 306.293 af
 Primary = 531.41 cfs @ 16.27 hrs, Volume= 306.293 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-ON-S-1b: POC-ON-S-1b

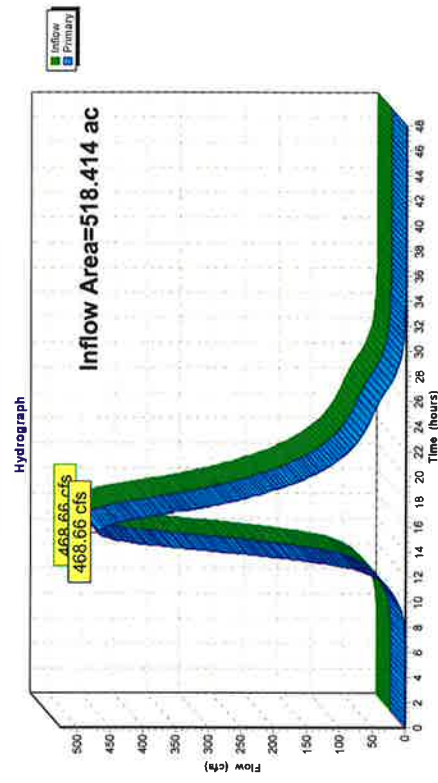


Summary for Link POC-ON-S-2: POC-ON-S-2

Inflow Area = 518.414 ac, 0.00% Impervious, Inflow Depth = 5.48" for 25-Year, 24-Hour event
 Inflow = 468.66 cfs @ 15.50 hrs, Volume= 236.780 af
 Primary = 468.66 cfs @ 15.50 hrs, Volume= 236.780 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

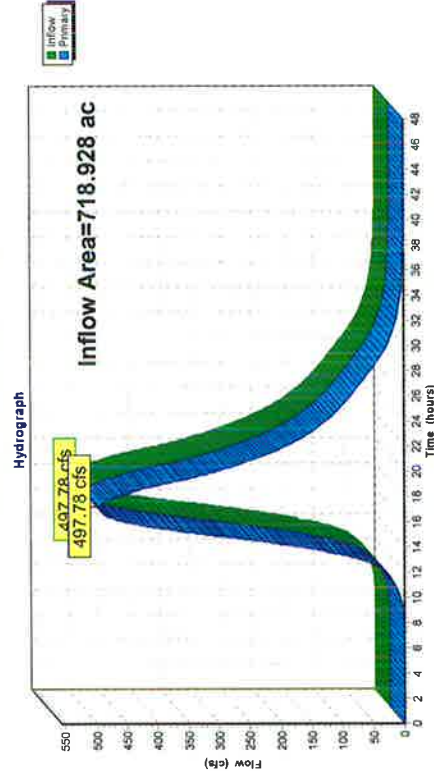
Link POC-ON-S-2: POC-ON-S-2



Summary for Link POC-ON-S-3: POC-ON-S-3

Inflow Area = 718.928 ac, 0.00% Impervious, Inflow Depth = 5.37" for 25-Year, 24-Hour event
 Inflow = 497.78 cfs @ 17.22 hrs, Volume= 321,469 af
 Primary = 497.78 cfs @ 17.22 hrs, Volume= 321,469 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

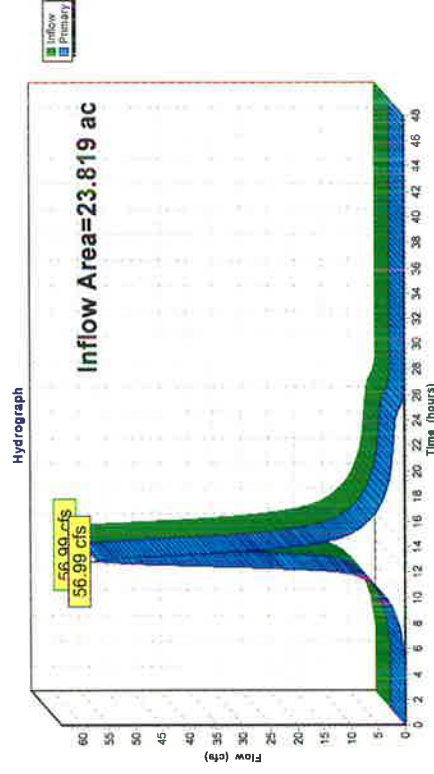
Link POC-ON-S-3: POC-ON-S-3



Summary for Link POC-ON-S-4a: POC-ON-S-4a

Inflow Area = 23.819 ac, 0.00% Impervious, Inflow Depth = 5.94" for 25-Year, 24-Hour event
 Inflow = 56.99 cfs @ 12.90 hrs, Volume= 11,799 af
 Primary = 56.99 cfs @ 12.90 hrs, Volume= 11,799 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-ON-S-4a: POC-ON-S-4a

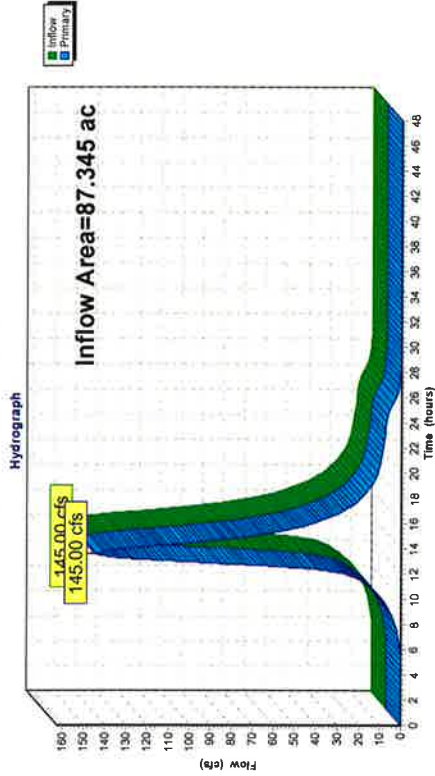


Summary for Link POC-ON-S-4b: POC-ON-S-4b

Inflow Area = 87.345 ac, 0.00% Impervious, Inflow Depth = 5.94" for 25-Year, 24-Hour event
 Inflow = 145.00 cfs @ 13.60 hrs, Volume= 43,266 af
 Primary = 145.00 cfs @ 13.60 hrs, Volume= 43,266 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-ON-S-4b: POC-ON-S-4b

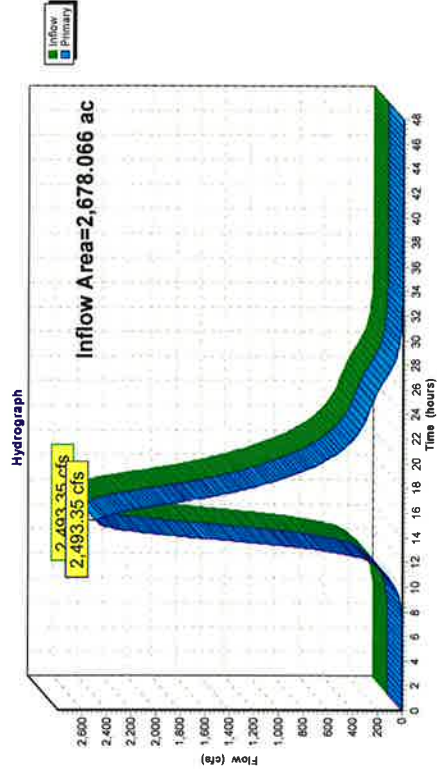


Summary for Link POC-ON-S-5: POC-ON-S-5

Inflow Area = 2,678.066 ac, 0.00% Impervious, Inflow Depth = 5.37" for 25-Year, 24-Hour event
 Inflow = 2,493.35 cfs @ 15.39 hrs, Volume= 1,197,497 af
 Primary = 2,493.35 cfs @ 15.39 hrs, Volume= 1,197,497 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-ON-S-5: POC-ON-S-5



ATTACHMENT III-C

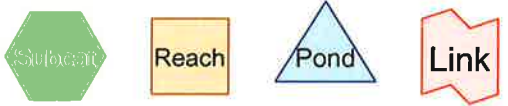
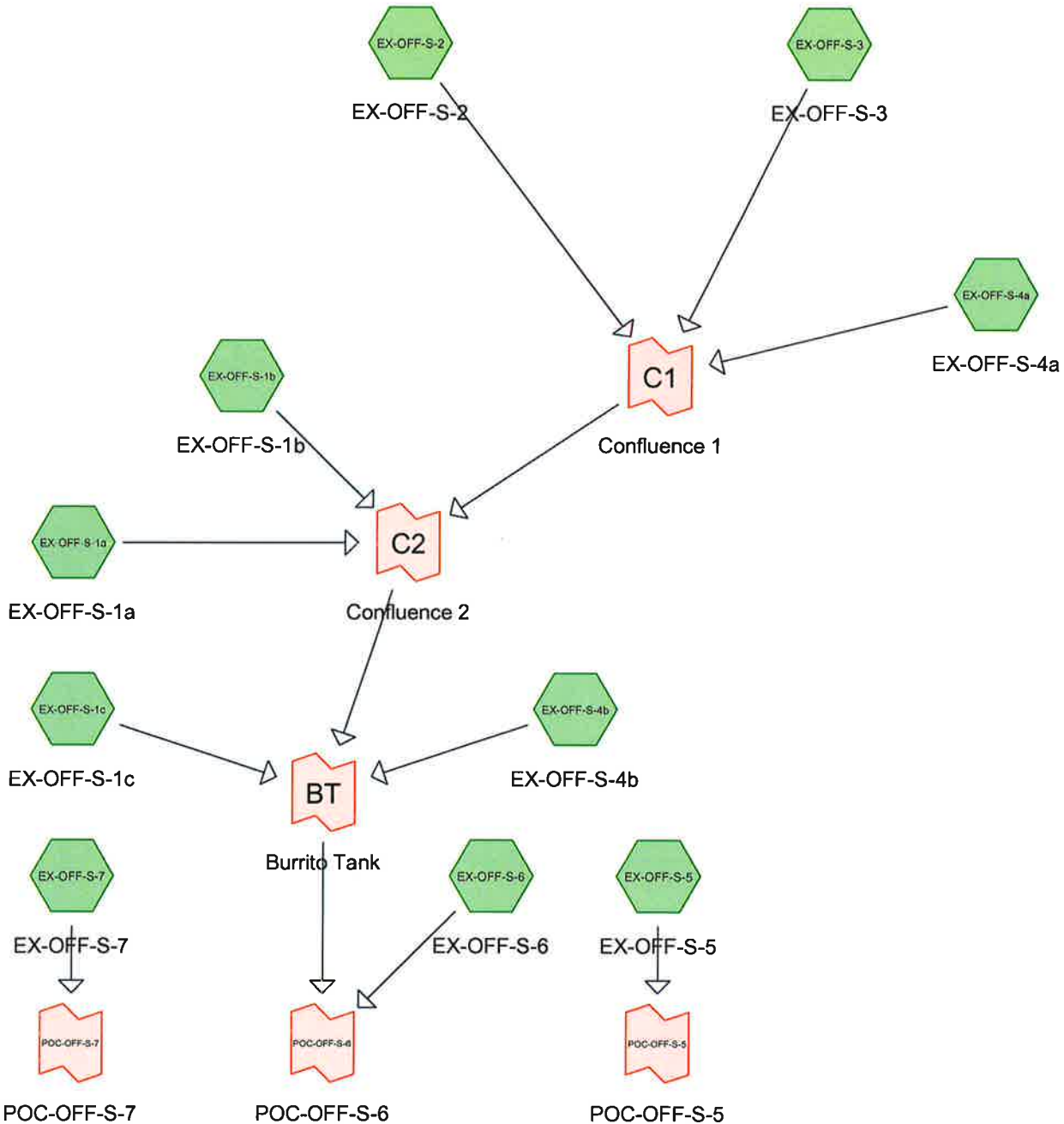
APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

1. PRE-DEVELOPMENT CONDITIONS
 - B. SOUTH AREA
 - II. STORMWATER RUN-OFF MODEL
 1. MODEL DIAGRAM
 2. 25-YEAR, 24-HOUR RESULTS



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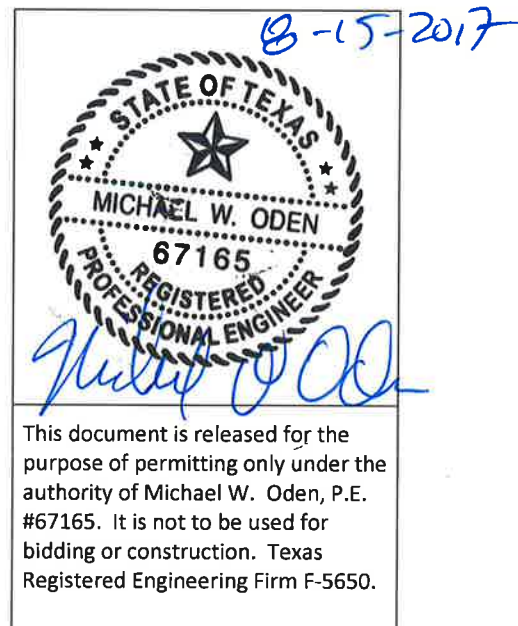
Routing Diagram for Pre-Development Conditions Runoff - South
 Prepared by Chicago Bridge and Iron Company, Printed 8/9/2017
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ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

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Pre-Development Conditions Runoff - South

Prepared by Chicago Bridge and Iron Company

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1,590.088	72	Desert shrub range, Fair, HSG B (EX-OFF-S-1b, EX-OFF-S-2, EX-OFF-S-3, EX-OFF-S-4b, EX-OFF-S-5)
936.150	81	Desert shrub range, Fair, HSG C (EX-OFF-S-1a, EX-OFF-S-1b)
7,164.733	86	Desert shrub range, Fair, HSG D (EX-OFF-S-1a, EX-OFF-S-1b, EX-OFF-S-1c, EX-OFF-S-2, EX-OFF-S-3, EX-OFF-S-4a, EX-OFF-S-4b, EX-OFF-S-5, EX-OFF-S-6, EX-OFF-S-7)
7.130	98	Water Surface, 0% imp, HSG D (EX-OFF-S-2)
86.168	98	Water Surface, HSG D (EX-OFF-S-1a, EX-OFF-S-1b, EX-OFF-S-1c, EX-OFF-S-4a, EX-OFF-S-4b)
9,784.269	83	TOTAL AREA

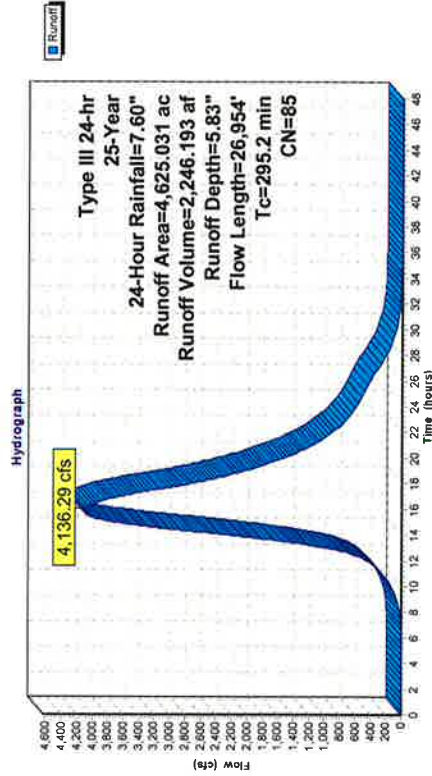
Summary for Subcatchment EX-OFF-S-1a: EX-OFF-S-1a

Runoff = 4,136.29 cfs @ 16.07 hrs, Volume= 2,246,193 af, Depth= 5.83"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
33.404	98	Water Surface, HSG D
790.820	81	Desert shrub range, Fair, HSG C
3,800.807	86	Desert shrub range, Fair, HSG D
4,625.031	85	Weighted Average
4,591.627	99.28%	Pervious Area
33.404	0.72%	Impervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
20.9	300	0.0167	0.24		
150.1	8,398	0.0087	0.93		Sheet Flow, Range n= 0.130 P2= 3.75" Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps
124.2	18,256	0.0025	2.45	39.21	Channel Flow, Area= 16.0 sf, Perim= 12.9', F= 1.24', n= 0.035
295.2	26,954	Total			

Subcatchment EX-OFF-S-1a: EX-OFF-S-1a



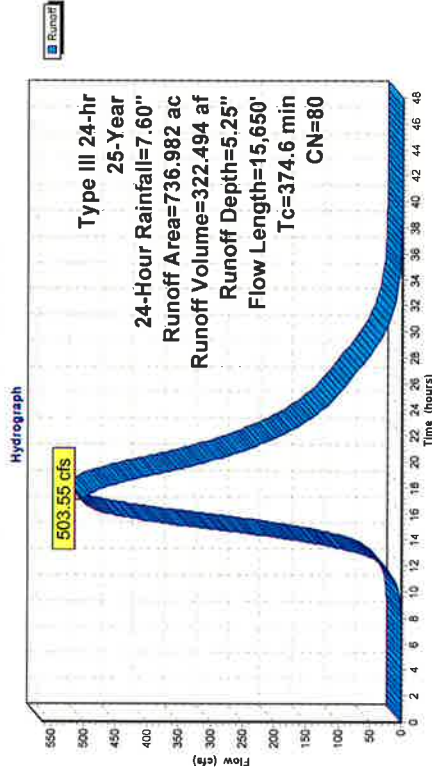
Summary for Subcatchment EX-OFF-S-1b: EX-OFF-S-1b

Runoff = 503.55 cfs @ 17.06 hrs, Volume= 322,494 af, Depth= 5.25"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
335.722	86	Desert shrub range, Fair, HSG D
145.330	81	Desert shrub range, Fair, HSG C
250.580	72	Desert shrub range, Fair, HSG B
5.350	98	Water Surface, HSG D
736.982	80	Weighted Average
731.632	99.27%	Pervious Area
5.350	0.73%	Impervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
64.4	300	0.0010	0.08		Sheet Flow, Range n= 0.130 P2= 3.75" Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps
310.2	15,350	0.0068	0.82		
374.6	15,650	Total			

Subcatchment EX-OFF-S-1b: EX-OFF-S-1b



Summary for Subcatchment EX-OFF-S-1c: EX-OFF-S-1c

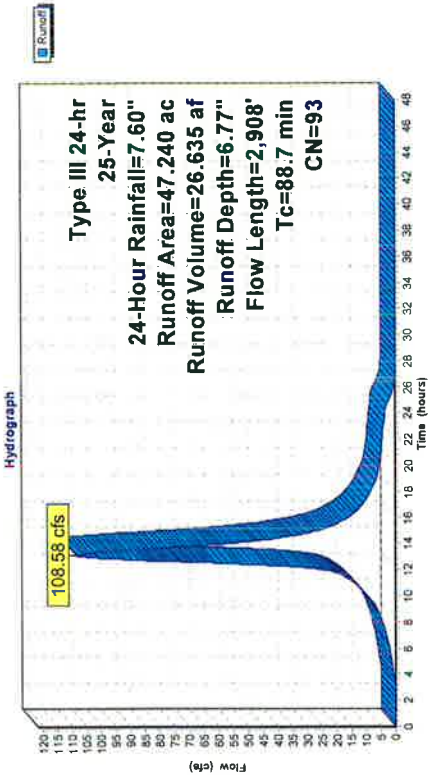
Runoff = 108.58 cfs @ 13.11 hrs, Volume= 26.635 af, Depth= 6.77"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
28.351	98	Water Surface, HSG D
18.889	86	Desert shrub range, Fair, HSG D
47.240	93	Weighted Average
18.889		39.99% Pervious Area
28.351		60.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.1	300	0.0067	0.17		
58.6	2,608	0.0055	0.74		
88.7	2,908	Total			

Sheet Flow,
 Range n= 0.130 P2= 3.75"
Shallow Concentrated Flow,
 Nearly Bare & Untilled Kv= 10.0 fps

Subcatchment EX-OFF-S-1c: EX-OFF-S-1c



Summary for Subcatchment EX-OFF-S-2: EX-OFF-S-2

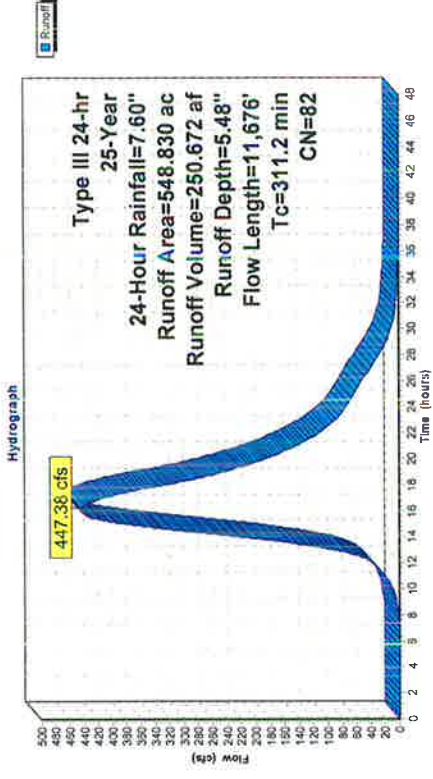
Runoff = 447.38 cfs @ 16.25 hrs, Volume= 250.672 af, Depth= 5.48"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
388.450	86	Desert shrub range, Fair, HSG D
153.250	72	Desert shrub range, Fair, HSG B
7.130	93	Water Surface, 0% imp, HSG D
548.830	82	Weighted Average
548.830		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		
246.8	11,376	0.0059	0.77		
311.2	11,676	Total			

Sheet Flow,
 Range n= 0.130 P2= 3.75"
Shallow Concentrated Flow,
 Nearly Bare & Untilled Kv= 10.0 fps

Subcatchment EX-OFF-S-2: EX-OFF-S-2



Summary for Subcatchment EX-OFF-S-3: EX-OFF-S-3

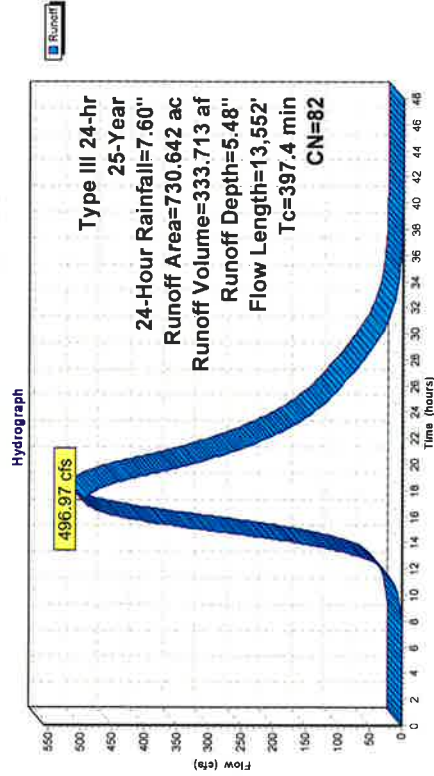
Runoff = 496.97 cfs @ 17.22 hrs, Volume= 333,713 af, Depth= 5.48"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
499.162	86	Desert shrub range, Fair, HSG D
231.480	72	Desert shrub range, Fair, HSG B
730.642	82	Weighted Average
730.642		100.00% Pervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
64.4	300	0.0010	0.08		
333.0	13,252	0.0044	0.66		
397.4	13,552	Total			

Sheet Flow,	Range	n=	P2=
Shallow Concentrated Flow,	Nearly Bare & Untilled	Kv=	10.0
Nearly Bare & Untilled	Kv=	10.0	fps

Subcatchment EX-OFF-S-3: EX-OFF-S-3



Summary for Subcatchment EX-OFF-S-4a: EX-OFF-S-4a

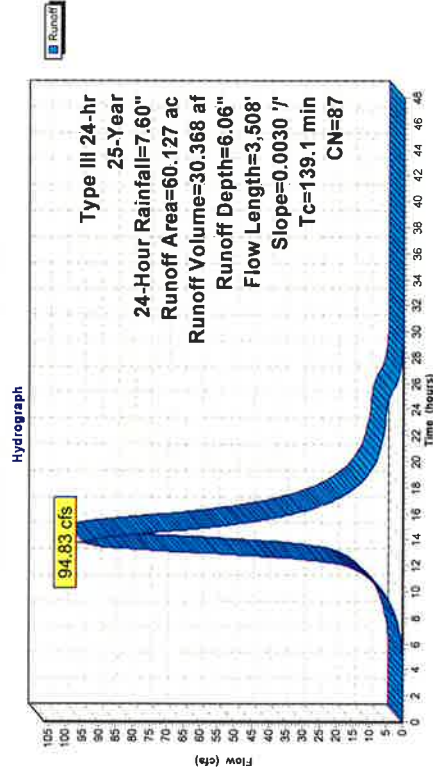
Runoff = 94.83 cfs @ 13.76 hrs, Volume= 30,368 af, Depth= 6.06"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
54.252	86	Desert shrub range, Fair, HSG D
5.875	98	Water Surface, HSG D
60.127	87	Weighted Average
54.252		90.25% Pervious Area
5.875		9.77% Impervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
41.5	300	0.0030	0.12		
97.6	3,208	0.0030	0.55		
139.1	3,508	Total			

Sheet Flow,	Range	n=	P2=
Shallow Concentrated Flow,	Nearly Bare & Untilled	Kv=	10.0
Nearly Bare & Untilled	Kv=	10.0	fps

Subcatchment EX-OFF-S-4a: EX-OFF-S-4a



Summary for Subcatchment EX-OFF-S-4b: EX-OFF-S-4b

Runoff = 218.46 cfs @ 15.25 hrs, Volume= 105,321 af, Depth= 6.06"

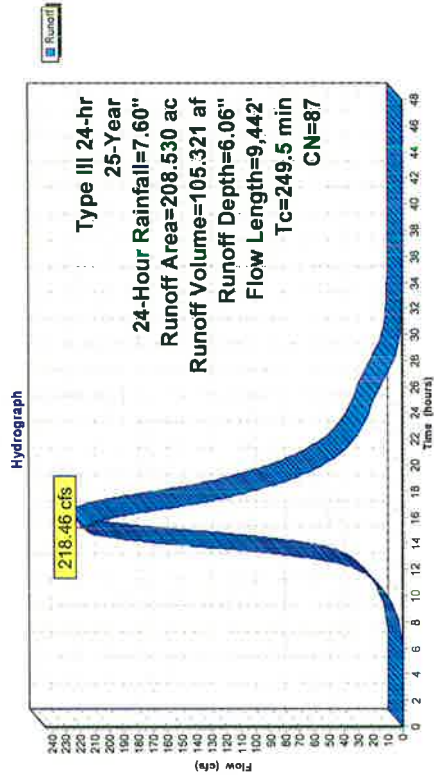
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
193.825	86	Desert shrub range, Fair, HSG D
1.517	72	Desert shrub range, Fair, HSG B
13.188	98	Water Surface, HSG D
208.530	87	Weighted Average
195.342		93.68% Pervious Area
13.188		6.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.6	300	0.0070	0.17		
219.9	9,142	0.0048	0.69		
249.5	9,442	Total			

Sheet Flow, n= 0.130 P2= 3.75"
 Range n= 0.130 P2= 3.75"
Shallow Concentrated Flow,
 Nearly Bare & Untilled KV= 10.0 fps

Subcatchment EX-OFF-S-4b: EX-OFF-S-4b



Summary for Subcatchment EX-OFF-S-5: EX-OFF-S-5

Runoff = 2,493.35 cfs @ 15.39 hrs, Volume= 1,197,497 af, Depth= 5.37"

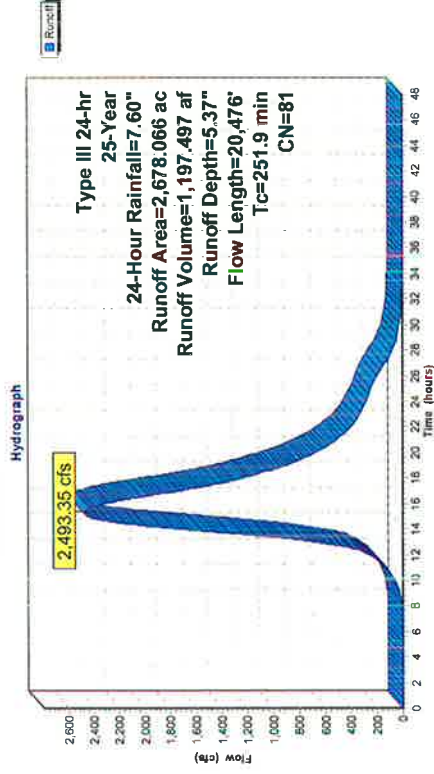
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
953.261	72	Desert shrub range, Fair, HSG B
1,724.805	86	Desert shrub range, Fair, HSG D
2,678.066	81	Weighted Average
2,678.066		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.9	300	0.0333	0.32		
184.1	9,183	0.0087	0.93		
71.9	10,993	0.0027	2.55	40.75	
251.9	20,476	Total			

Sheet Flow, n= 0.130 P2= 3.75"
 Range n= 0.130 P2= 3.75"
Shallow Concentrated Flow,
 Nearly Bare & Untilled KV= 10.0 fps
Channel Flow,
 Area= 16.0 sf, Perim= 12.9', r= 1.24', n= 0.035

Subcatchment EX-OFF-S-5: EX-OFF-S-5



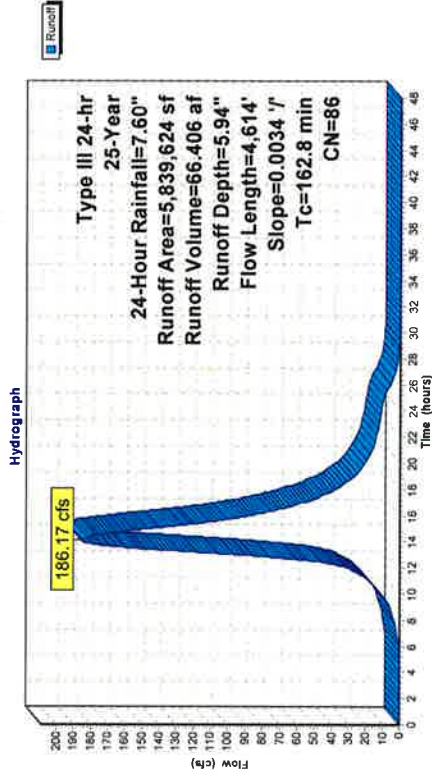
Summary for Subcatchment EX-OFF-S-6: EX-OFF-S-6

Runoff = 186.17 cfs @ 14.11 hrs, Volume= 66,406 af, Depth= 5.94"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (sf)	CN	Description
5,839,624	86	Desert shrub range, Fair, HSG D
100.00% Pervious Area		

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
39.5	300	0.0034	0.13		
Sheet Flow, Range n= 0.130 P2= 3.75"					
123.3	4,314	0.0034	0.58		Shallow Concentrated Flow, Nearly Bare & Untilled Ky=10.0 fps
162.8		4,614		Total	

Subcatchment EX-OFF-S-6: EX-OFF-S-6



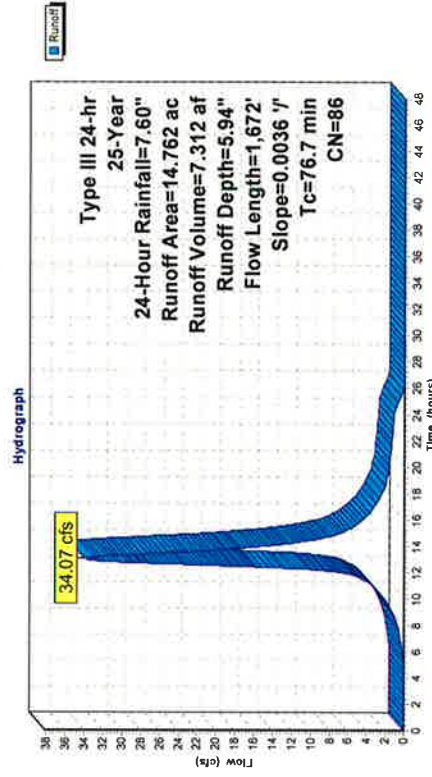
Summary for Subcatchment EX-OFF-S-7: EX-OFF-S-7

Runoff = 34.07 cfs @ 13.03 hrs, Volume= 7,312 af, Depth= 5.94"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
14,762	86	Desert shrub range, Fair, HSG D
100.00% Pervious Area		

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.6	300	0.0036	0.13		
Sheet Flow, Range n= 0.130 P2= 3.75"					
38.1	1,372	0.0036	0.60		Shallow Concentrated Flow, Nearly Bare & Untilled Ky=10.0 fps
76.7		1,672		Total	

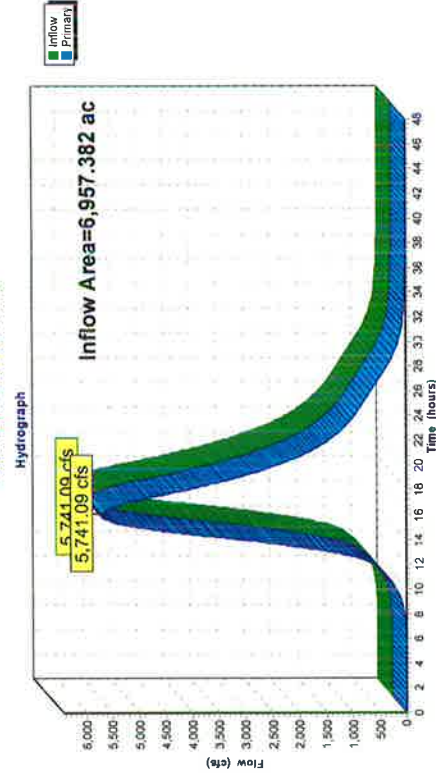
Subcatchment EX-OFF-S-7: EX-OFF-S-7



Summary for Link BT: Burrito Tank

Inflow Area = 6,957.382 ac, 1.24% Impervious, Inflow Depth = 5.72" for 25-Year, 24-Hour event
 Inflow = 5,741.09 cfs @ 16.07 hrs, Volume= 3,315.396 af
 Primary = 5,741.09 cfs @ 16.07 hrs, Volume= 3,315.396 af, Attenu= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

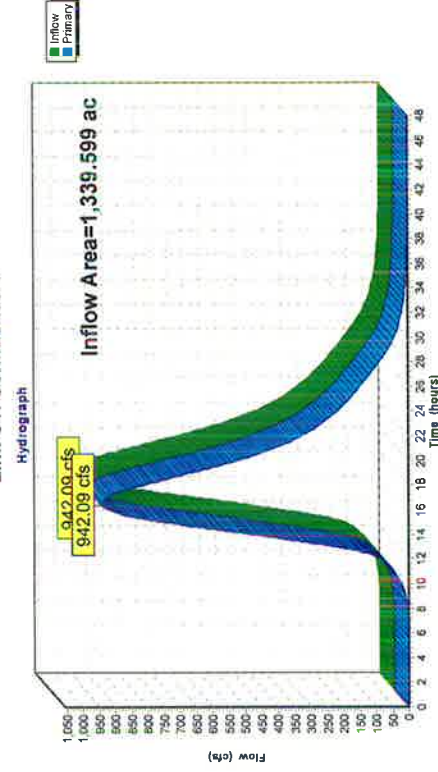
Link BT: Burrito Tank



Summary for Link C1: Confluence 1

Inflow Area = 1,339.599 ac, 0.44% Impervious, Inflow Depth = 5.51" for 25-Year, 24-Hour event
 Inflow = 942.09 cfs @ 16.34 hrs, Volume= 614.753 af
 Primary = 942.09 cfs @ 16.34 hrs, Volume= 614.753 af, Attenu= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

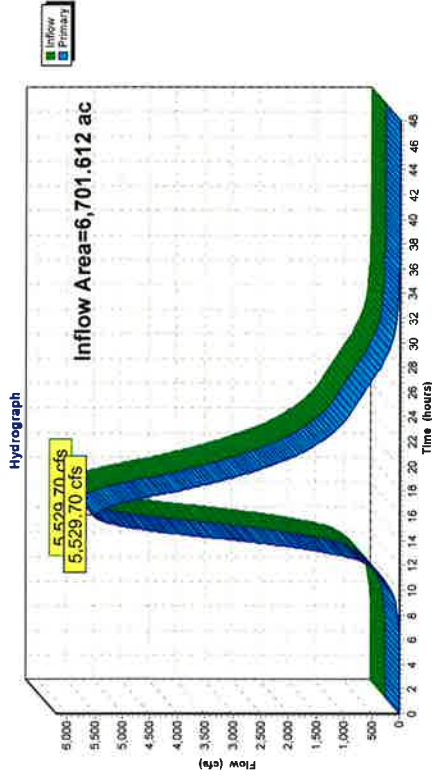
Link C1: Confluence 1



Summary for Link C2: Confluence 2

Inflow Area = 6,701.612 ac, 0.67% Impervious, Inflow Depth = 5.70" for 25-Year, 24-Hour event
 Inflow = 5,529.70 cfs @ 16.07 hrs, Volume= 3,183,440 af
 Primary = 5,529.70 cfs @ 16.07 hrs, Volume= 3,183,440 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

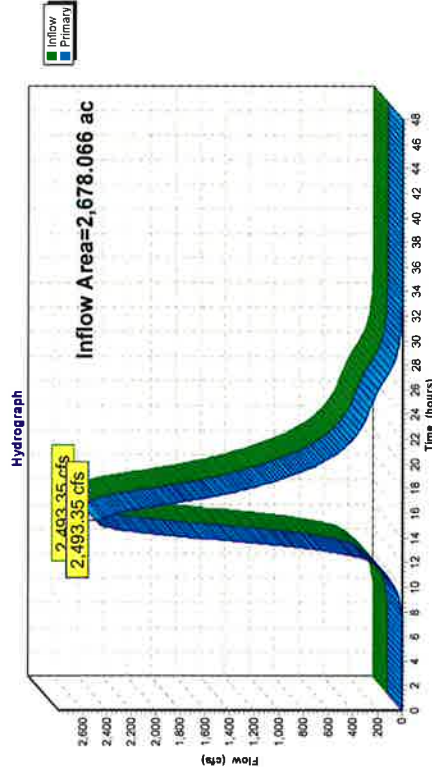
Link C2: Confluence 2



Summary for Link POC-OFF-S-5: POC-OFF-S-5

Inflow Area = 2,678.066 ac, 0.00% Impervious, Inflow Depth = 5.37" for 25-Year, 24-Hour event
 Inflow = 2,493.35 cfs @ 15.39 hrs, Volume= 1,197,497 af
 Primary = 2,493.35 cfs @ 15.39 hrs, Volume= 1,197,497 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

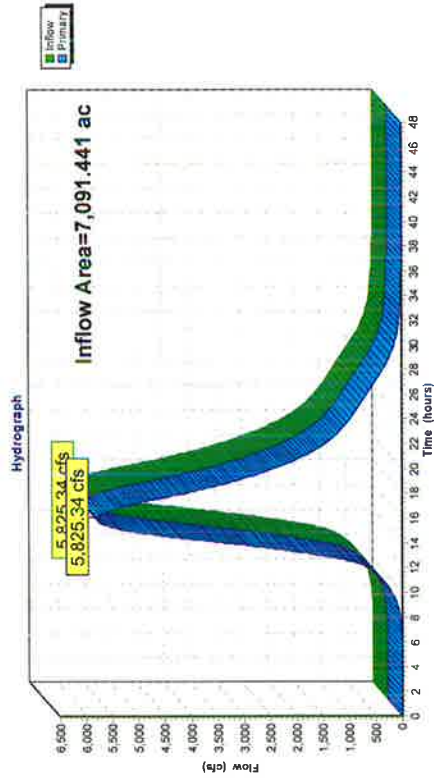
Link POC-OFF-S-5: POC-OFF-S-5



Summary for Link POC-OFF-S-6: POC-OFF-S-6

Inflow Area = 7,091.441 ac, 1.22% Impervious, Inflow Depth = 5.72" for 25-Year, 24-Hour event
 Inflow = 5,825.34 cfs @ 16.07 hrs, Volume= 3,381,802 af
 Primary = 5,825.34 cfs @ 16.07 hrs, Volume= 3,381,802 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

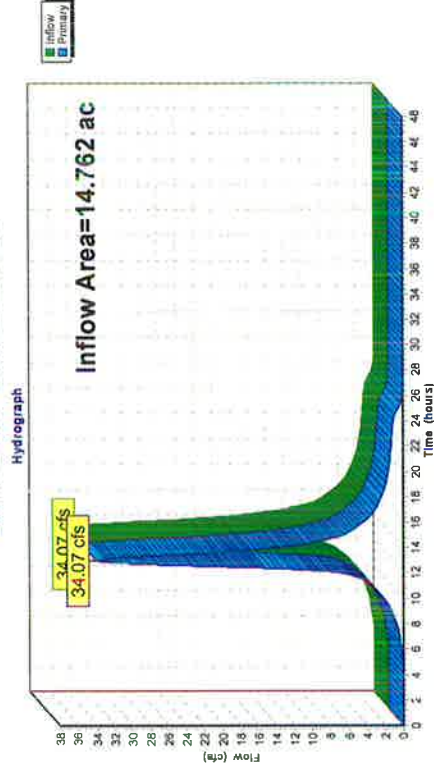
Link POC-OFF-S-6: POC-OFF-S-6



Summary for Link POC-OFF-S-7: POC-OFF-S-7

Inflow Area = 14,762 ac, 0.00% Impervious, Inflow Depth = 5.94" for 25-Year, 24-Hour event
 Inflow = 34.07 cfs @ 13.03 hrs, Volume= 7,312 af
 Primary = 34.07 cfs @ 13.03 hrs, Volume= 7,312 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-OFF-S-7: POC-OFF-S-7

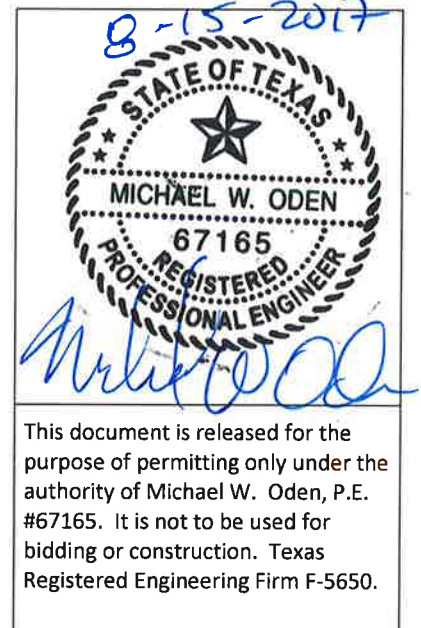


ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

- 2. **POST-DEVELOPMENT CONDITIONS**
 - A. **NORTH AREA**
 - I. **STORMWATER RUN-ON MODEL**
 - 1. **MODEL DIAGRAM**
 - 2. **25-YEAR, 24-HOUR RESULTS**





P-ON-N-1



POC-ON-N-1



P-ON-N-2a



POC-ON-N-2a



P-ON-N-2b



POC-ON-N-2b



P-ON-N-3a



POC-ON-N-3a



P-ON-N-3b



POC-ON-N-3b



P-ON-N-4



POC-ON-N-4



Routing Diagram for Post-Development Conditions Runon - North
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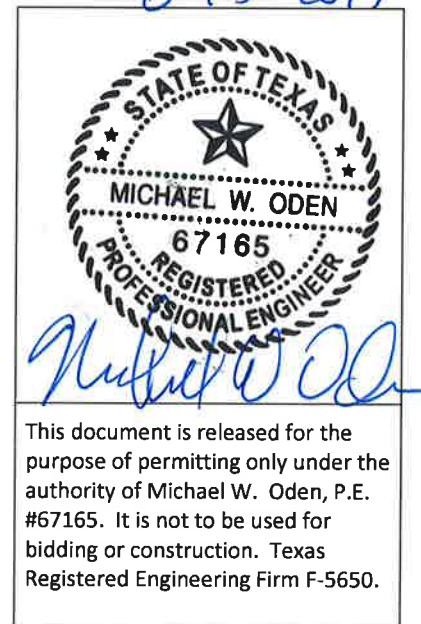
ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

- 2. POST-DEVELOPMENT CONDITIONS**
 - A. NORTH AREA**
 - I. STORMWATER RUN-ON MODEL**
 - 1. MODEL DIAGRAM**
 - 2. 25-YEAR, 24-HOUR RESULTS**

8-15-2017



Post-Development Conditions Runon - North

Prepared by Chicago Bridge and Iron Company
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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
666.830	72	Desert shrub range, Fair, HSG B (P-ON-N-1, P-ON-N-2a, P-ON-N-2b, P-ON-N-3a, P-ON-N-3b, P-ON-N-4)
141.600	81	Desert shrub range, Fair, HSG C (P-ON-N-1)
709.123	86	Desert shrub range, Fair, HSG D (P-ON-N-1, P-ON-N-2a, P-ON-N-2b, P-ON-N-3a, P-ON-N-3b, P-ON-N-4)
5.350	98	Water Surface, HSG D (P-ON-N-1)
1,522.903	79	TOTAL AREA

Summary for Subcatchment P-ON-N-1: P-ON-N-1

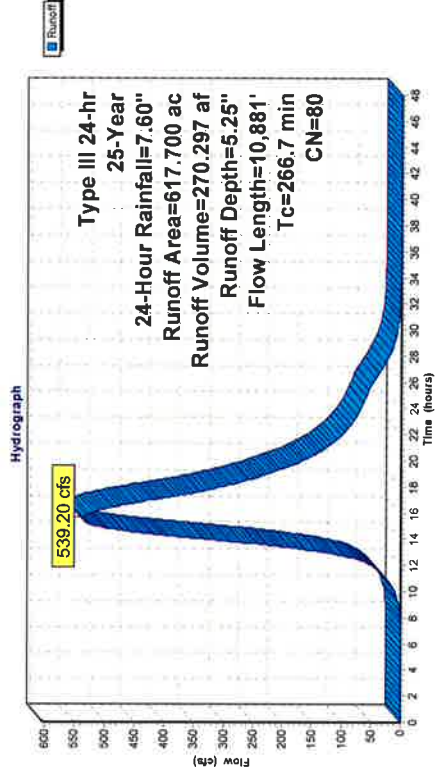
Runoff = 539.20 cfs @ 15.70 hrs, Volume= 270,297 af, Depth= 5.25"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
243.120	86	Desert shrub range, Fair, HSG D
5.350	98	Water Surface, HSG D
227.630	72	Desert shrub range, Fair, HSG B
141.600	81	Desert shrub range, Fair, HSG C
617.700	80	Weighted Average
612.350		99.13% Pervious Area
5.350		0.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		
202.3	10,581	0.0076	0.87		
266.7	10,881	Total			

Sheet Flow,
 Range n= 0.130 P2= 3.75"
Shallow Concentrated Flow,
 Nearly Bare & Unfilled Kv= 10.0 fps

Subcatchment P-ON-N-1: P-ON-N-1



Summary for Subcatchment P-ON-N-2a: P-ON-N-2a

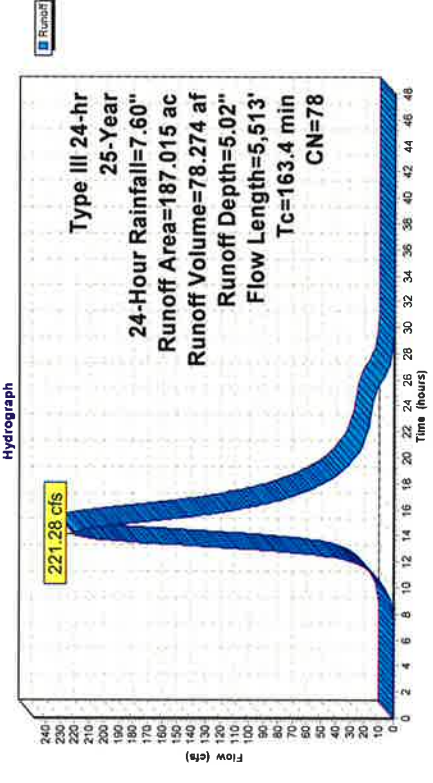
Runoff = 221.28 cfs @ 14.16 hrs, Volume= 78,274 af, Depth= 5.02"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
74.098	86	Desert shrub range, Fair, HSG D
112.917	72	Desert shrub range, Fair, HSG B
187.015	78	Weighted Average
187.015		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		
99.0	5,213	0.0077	0.88		
163.4	5,513	Total			

Sheet Flow,
 Range n= 0.130 P2= 3.75"
Shallow Concentrated Flow,
 Nearly Bare & Unfilled Kv= 10.0 fps

Subcatchment P-ON-N-2a: P-ON-N-2a



Summary for Subcatchment P-ON-N-2b: P-ON-N-2b

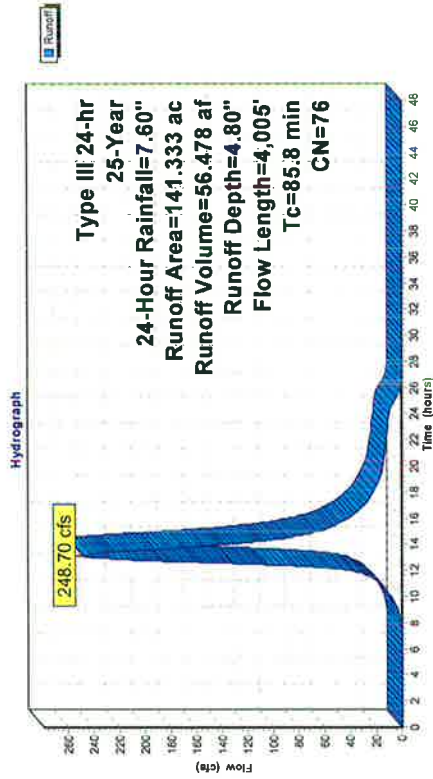
Runoff = 248.70 cfs @ 13.15 hrs, Volume= 56.478 af, Depth= 4.80"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dl= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
41.564	86	Desert shrub range, Fair, HSG D
99.769	72	Desert shrub range, Fair, HSG B
141.333	76	Weighted Average
141.333	100.00%	Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.7	300	0.0170	0.24		
65.1	3,705	0.0090	0.95		
85.8	4,005	Total			

Sheet Flow, Range n=0.130 P2= 3.75"	Shallow Concentrated Flow, Nearly Bare & Unfilled Kv= 10.0 fps
0.24	0.95

Subcatchment P-ON-N-2b: P-ON-N-2b



Summary for Subcatchment P-ON-N-3a: P-ON-N-3a

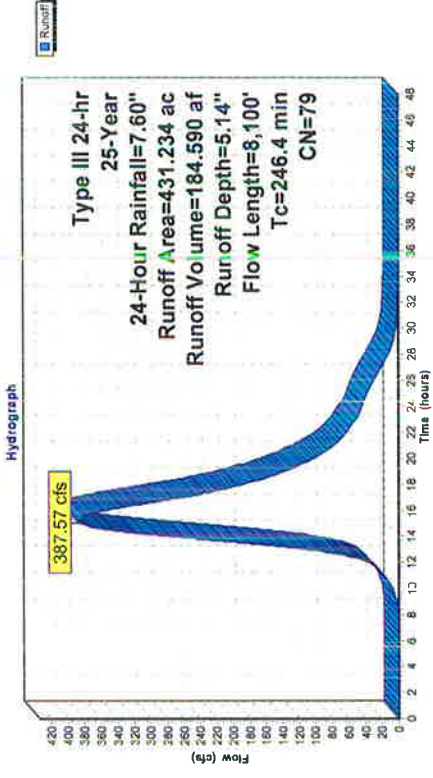
Runoff = 387.57 cfs @ 15.06 hrs, Volume= 184.590 af, Depth= 5.14"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dl= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
229.323	86	Desert shrub range, Fair, HSG D
201.911	72	Desert shrub range, Fair, HSG B
431.234	79	Weighted Average
431.234	100.00%	Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		
182.0	7,800	0.0051	0.71		
246.4	8,100	Total			

Sheet Flow, Range n=0.130 P2= 3.75"	Shallow Concentrated Flow, Nearly Bare & Unfilled Kv= 10.0 fps
0.08	0.71

Subcatchment P-ON-N-3a: P-ON-N-3a



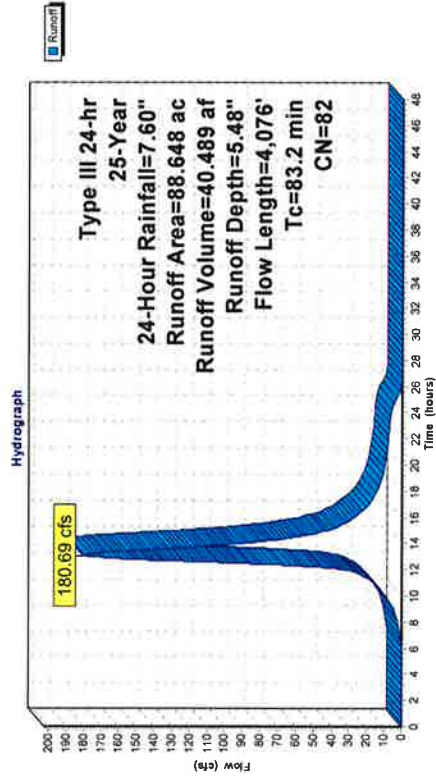
Summary for Subcatchment P-ON-N-3b: P-ON-N-3b

Runoff = 180.69 cfs @ 13.04 hrs, Volume= 40,489 af, Depth= 5.48"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
65.562	86	Desert shrub range, Fair, HSG D
23.086	72	Desert shrub range, Fair, HSG B
88.648	82	Weighted Average
88.648	100.00%	Pervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
20.3	300	0.0180	0.25		Sheet Flow, Range n= 0.130 P2= 3.75"
62.9	3,776	0.0100	1.00		Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps
83.2	4,076	Total			

Subcatchment P-ON-N-3b: P-ON-N-3b



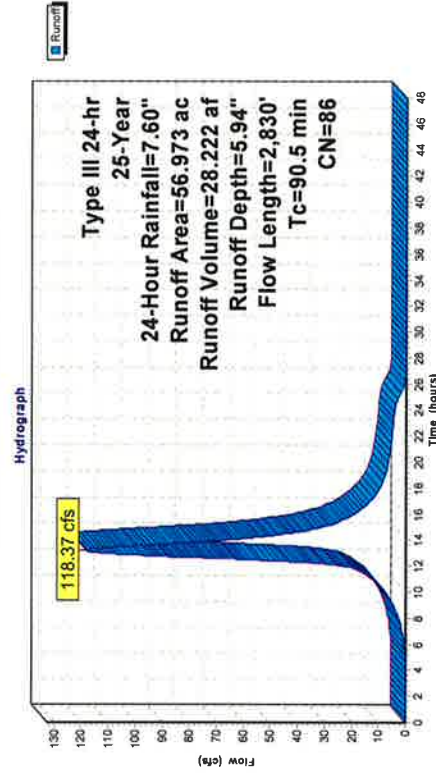
Summary for Subcatchment P-ON-N-4: P-ON-N-4

Runoff = 118.37 cfs @ 13.17 hrs, Volume= 28,222 af, Depth= 5.94"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
55.456	86	Desert shrub range, Fair, HSG D
1.517	72	Desert shrub range, Fair, HSG B
56.973	86	Weighted Average
56.973	100.00%	Pervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
29.6	300	0.0070	0.17		Sheet Flow, Range n= 0.130 P2= 3.75"
60.9	2,550	0.0048	0.69		Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps
90.5	2,830	Total			

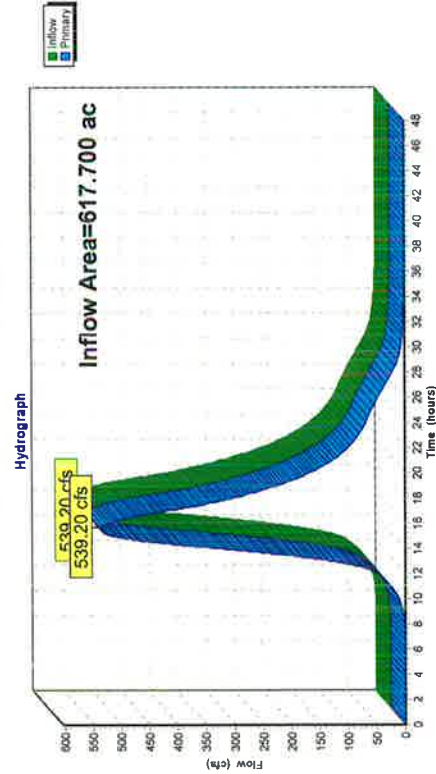
Subcatchment P-ON-N-4: P-ON-N-4



Summary for Link POC-ON-N-1: POC-ON-N-1

Inflow Area = 617.700 ac, 0.87% Impervious, Inflow Depth = 5.25" for 25-Year, 24-Hour event
 Inflow = 539.20 cfs @ 15.70 hrs, Volume= 270.297 af
 Primary = 539.20 cfs @ 15.70 hrs, Volume= 270.297 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

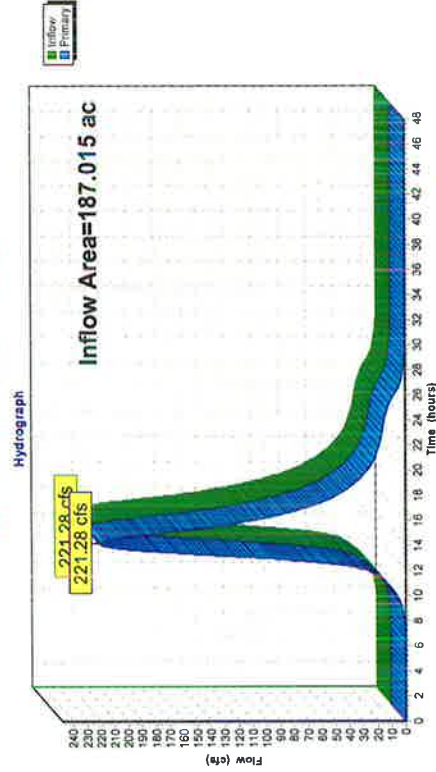
Link POC-ON-N-1: POC-ON-N-1



Summary for Link POC-ON-N-2a: POC-ON-N-2a

Inflow Area = 187.015 ac, 0.00% Impervious, Inflow Depth = 5.02" for 25-Year, 24-Hour event
 Inflow = 221.28 cfs @ 14.16 hrs, Volume= 78.274 af
 Primary = 221.28 cfs @ 14.16 hrs, Volume= 78.274 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-ON-N-2a: POC-ON-N-2a

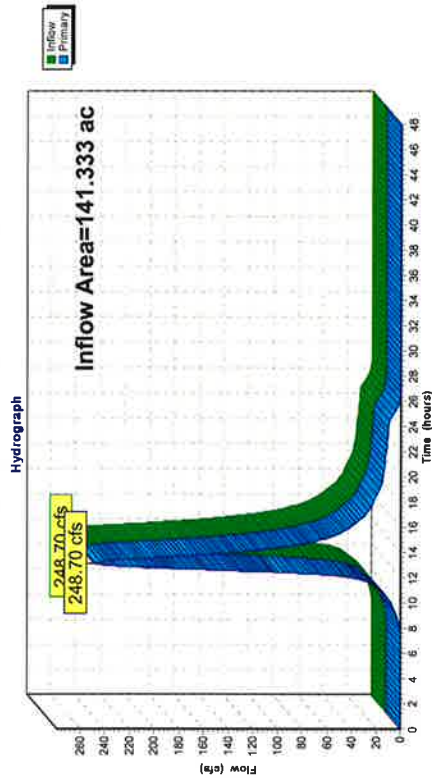


Summary for Link POC-ON-N-2b: POC-ON-N-2b

Inflow Area = 141.333 ac, 0.00% Impervious, Inflow Depth = 4.80" for 25-Year, 24-Hour event
 Inflow = 248.70 cfs @ 13.15 hrs, Volume= 56.478 af
 Primary = 248.70 cfs @ 13.15 hrs, Volume= 56.478 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-ON-N-2b: POC-ON-N-2b

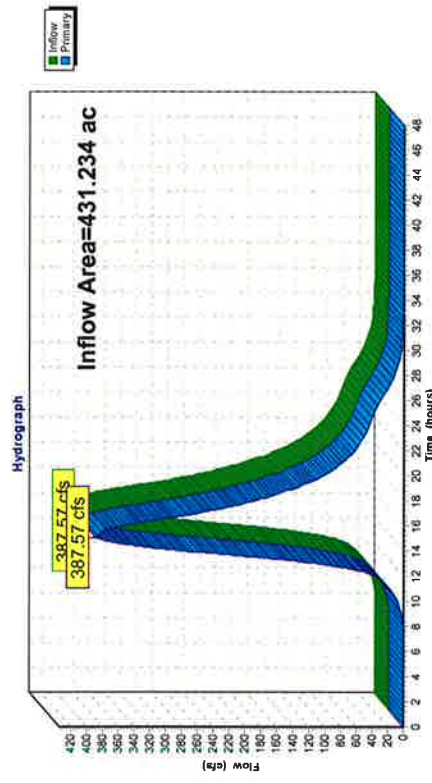


Summary for Link POC-ON-N-3a: POC-ON-N-3a

Inflow Area = 431.234 ac, 0.00% Impervious, Inflow Depth = 5.14" for 25-Year, 24-Hour event
 Inflow = 387.57 cfs @ 15.06 hrs, Volume= 184.580 af
 Primary = 387.57 cfs @ 15.06 hrs, Volume= 184.580 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

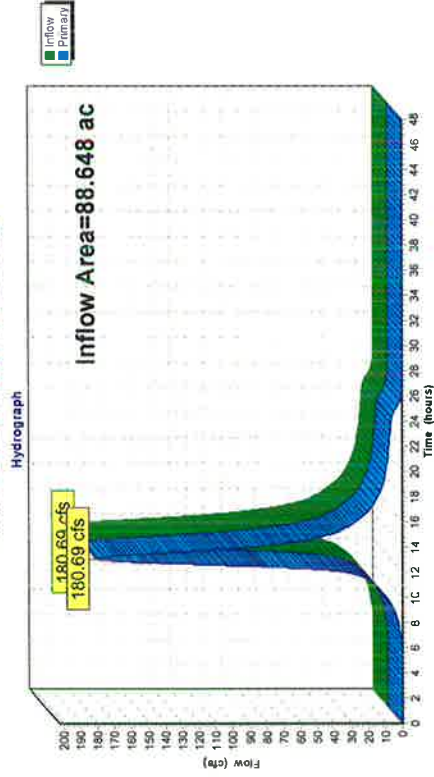
Link POC-ON-N-3a: POC-ON-N-3a



Summary for Link POC-ON-N-3b: POC-ON-N-3b

Inflow Area = 88.648 ac, 0.00% Impervious, Inflow Depth = 5.48" for 25-Year, 24-Hour event
 Inflow = 180.69 cfs @ 13.04 hrs, Volume= 40.489 af
 Primary = 180.69 cfs @ 13.04 hrs, Volume= 40.489 af, Atten= 0%, Lags= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

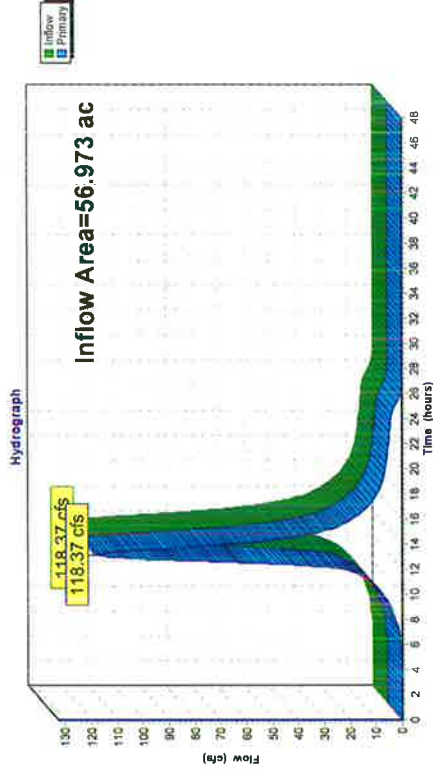
Link POC-ON-N-3b: POC-ON-N-3b



Summary for Link POC-ON-N-4: POC-ON-N-4

Inflow Area = 56.973 ac, 0.00% Impervious, Inflow Depth = 5.94" for 25-Year, 24-Hour event
 Inflow = 118.37 cfs @ 13.17 hrs, Volume= 28.222 af
 Primary = 118.37 cfs @ 13.17 hrs, Volume= 28.222 af, Atten= 0%, Lags= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-ON-N-4: POC-ON-N-4



ATTACHMENT III-C

APPENDIX III-C.4

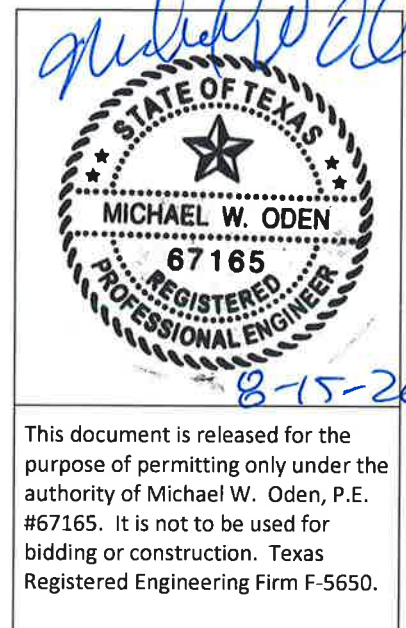
HYDROCAD MODEL OUTPUT FILES

2. POST-DEVELOPMENT CONDITIONS

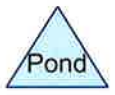
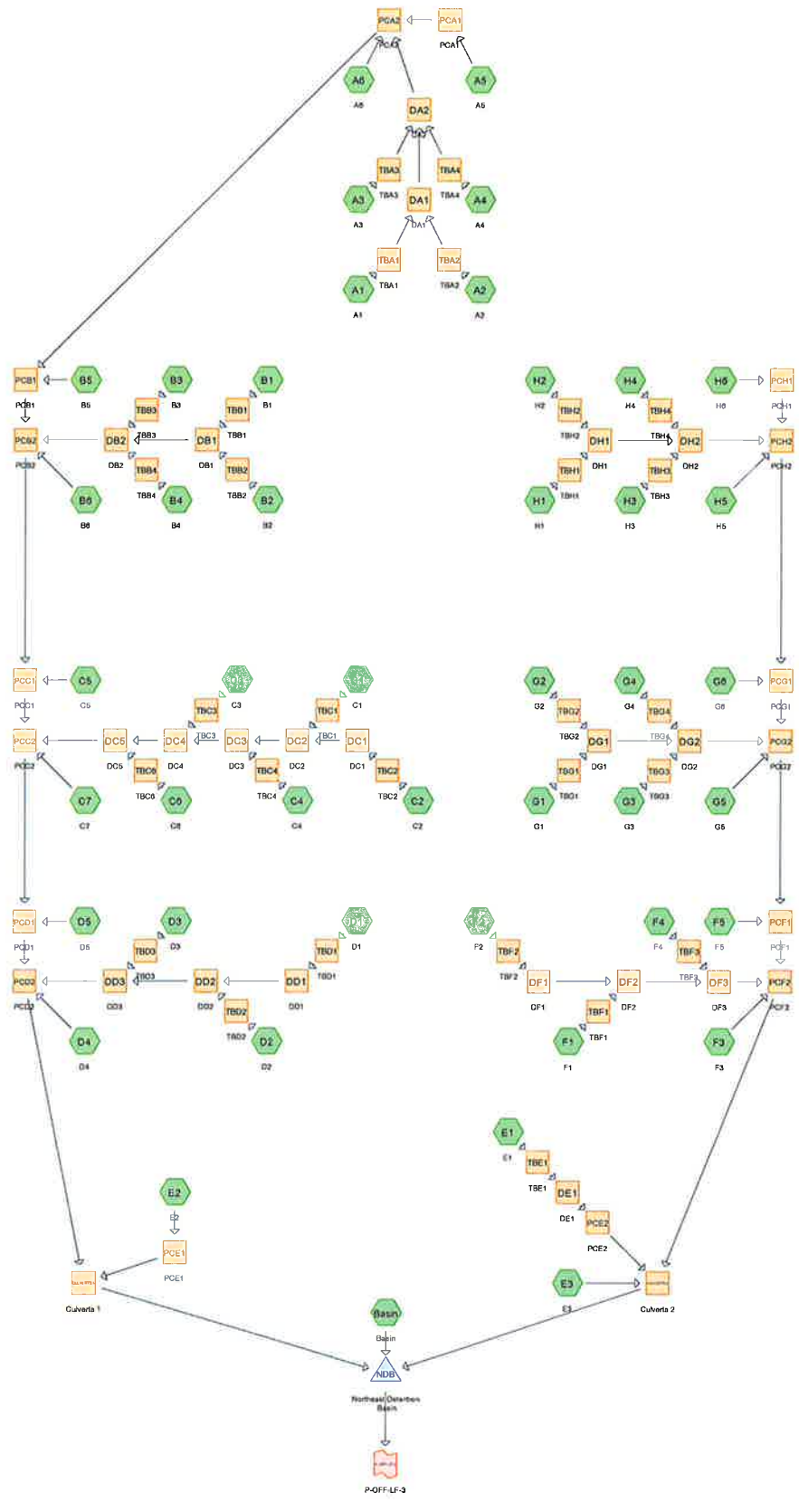
A. NORTH AREA

II. PROPOSED LANDFILL DEVELOPMENT MODEL

- 1. MODEL DIAGRAM**
- 2. 25-YEAR, 24-HOUR RESULTS**
- 3. 100-YEAR, 24-HOUR RESULTS**



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Routing Diagram for Post-Development Conditions Landfill - North
 Prepared by Chicago Bridge and Iron Company, Printed 8/9/2017
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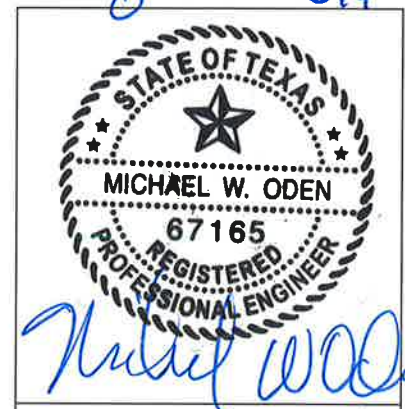
ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

- 2. **POST-DEVELOPMENT CONDITIONS**
 - A. **NORTH AREA**
 - II. **PROPOSED LANDFILL DEVELOPMENT MODEL**
 - 1. MODEL DIAGRAM
 - 2. **25-YEAR, 24-HOUR RESULTS**
 - 3. 100-YEAR, 24-HOUR RESULTS

8-15-2017



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Post-Development Conditions Landfill - North

Prepared by Chicago Bridge and Iron Company

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
92.668	91	(A1, A2, A3, A4, A5, A6, B1, B2, B3, B4, B5, B6, C1, C2, C3, C4, C5, C6, C7, D1, D2, D3, D4, D5, E1, E2, E3, F1, F2, F3, F4, F5, G1, G2, G3, G4, G5, G6, H1, H2, H3, H4, H5, H6)
13.623	98	Water Surface, HSG D (Basin)
106.291	92	TOTAL AREA

Summary for Subcatchment A1: A1

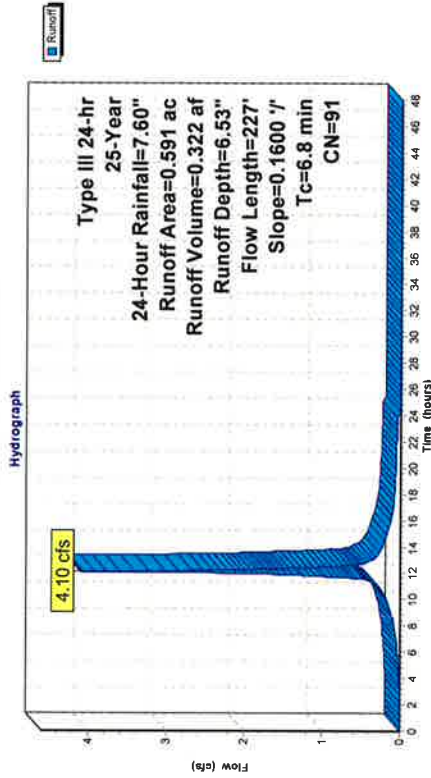
Runoff = 4.10 cfs @ 12.09 hrs, Volume= 0.322 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
0.591	91	
0.591		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	227	0.1600	0.56		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment A1: A1



Summary for Subcatchment A2: A2

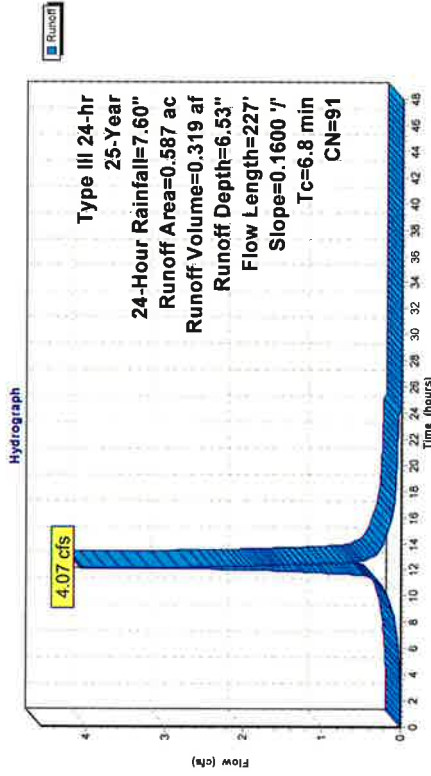
Runoff = 4.07 cfs @ 12.09 hrs, Volume= 0.319 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
0.587	91	
0.587		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	227	0.1600	0.56		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment A2: A2



Summary for Subcatchment A3: A3

Runoff = 11.61 cfs @ 12.08 hrs, Volume= 0.868 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

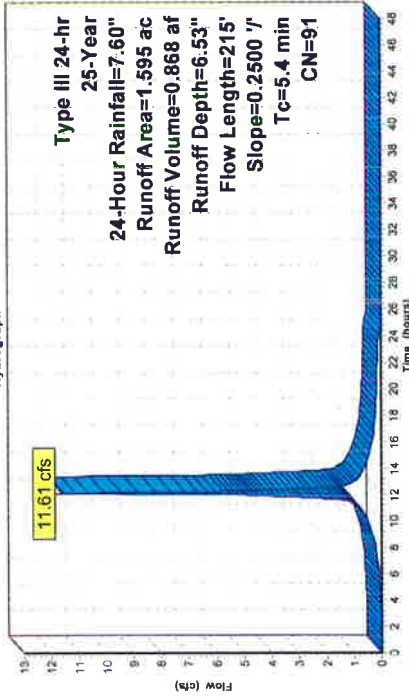
Area (ac)	CN	Description
1.595	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	215	0.2500	0.66		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment A3: A3

Hydrograph



Summary for Subcatchment A4: A4

Runoff = 11.47 cfs @ 12.08 hrs, Volume= 0.868 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

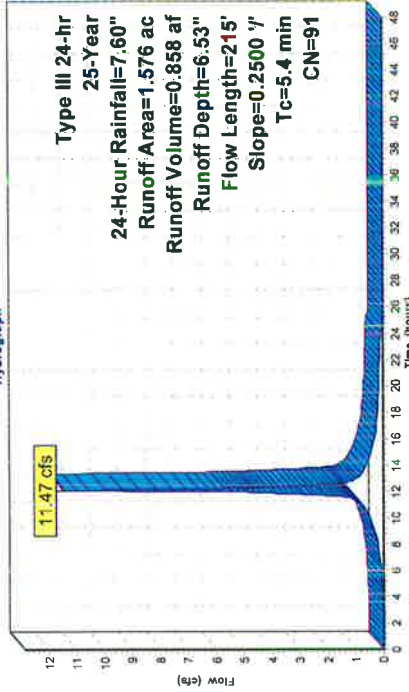
Area (ac)	CN	Description
1.576	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	215	0.2500	0.66		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment A4: A4

Hydrograph



Summary for Subcatchment A5: A5

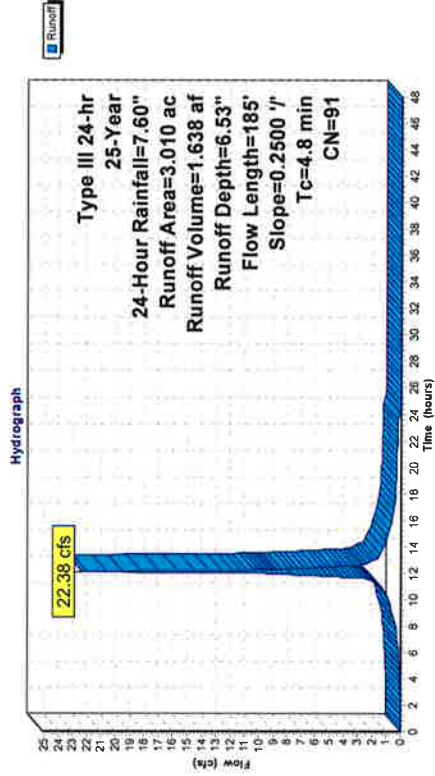
Runoff = 22.38 cfs @ 12.07 hrs, Volume= 1,638 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
3.010	91	
3.010		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	185	0.2500	0.64		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment A5: A5



Summary for Subcatchment A6: A6

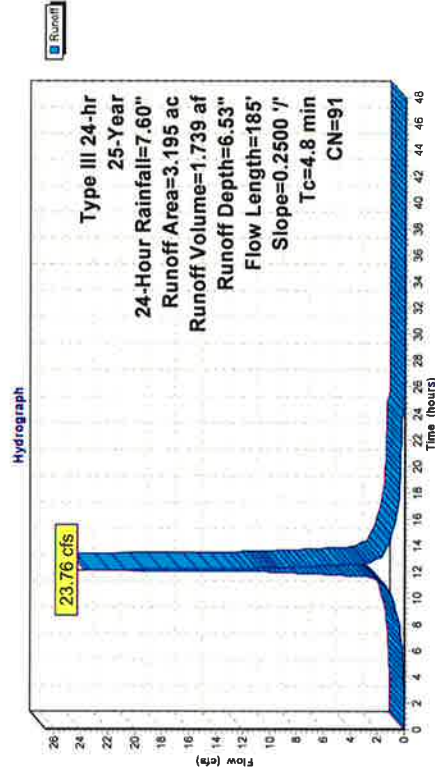
Runoff = 23.76 cfs @ 12.07 hrs, Volume= 1,739 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
3.195	91	
3.195		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	185	0.2500	0.64		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment A6: A6



Summary for Subcatchment B1: B1

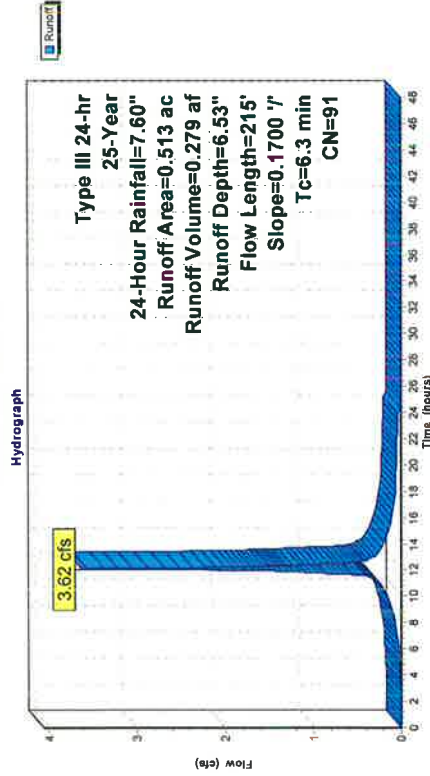
Runoff = 3.62 cfs @ 12.09 hrs, Volume= 0.279 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
0.513	91	100.00% Pervious Area

Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	215	0.1700	0.57	

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment B1: B1



Summary for Subcatchment B2: B2

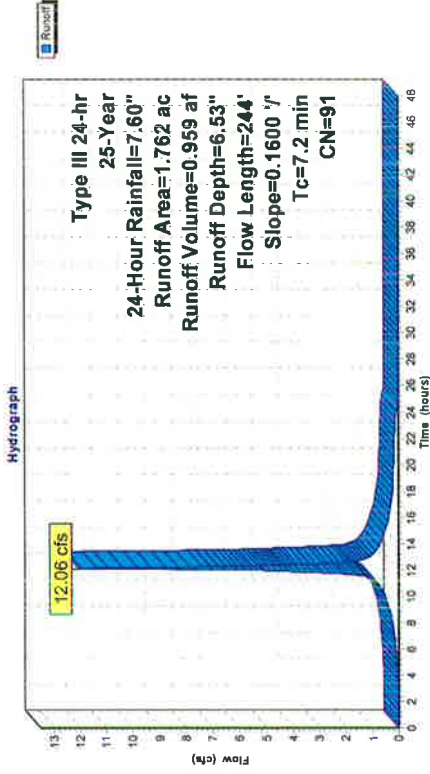
Runoff = 12.06 cfs @ 12.10 hrs, Volume= 0.959 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
1.762	91	100.00% Pervious Area

Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	244	0.1600	0.57	

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment B2: B2



Summary for Subcatchment B3: B3

Runoff = 10.20 cfs @ 12.08 hrs, Volume= 0.762 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt=0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

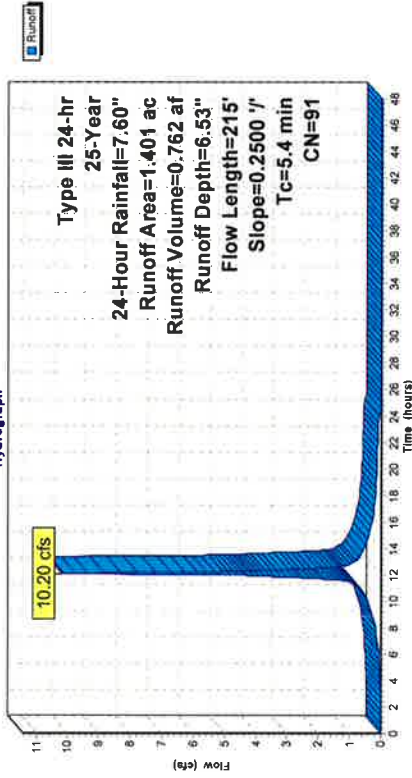
Area (ac)	CN	Description
1.401	91	100.00% Pervious Area

Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	215	0.2500	0.66	

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment B3: B3

Hydrograph



Summary for Subcatchment B4: B4

Runoff = 12.36 cfs @ 12.07 hrs, Volume= 0.911 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

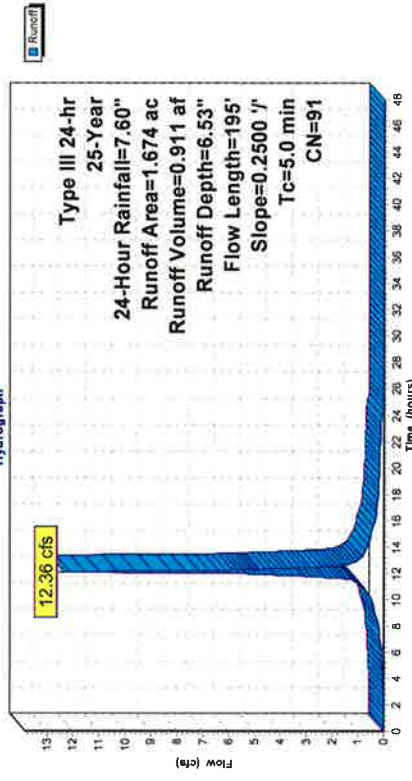
Area (ac)	CN	Description
1.674	91	100.00% Pervious Area

Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	195	0.2500	0.65	

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment B4: B4

Hydrograph



Summary for Subcatchment B5: B5

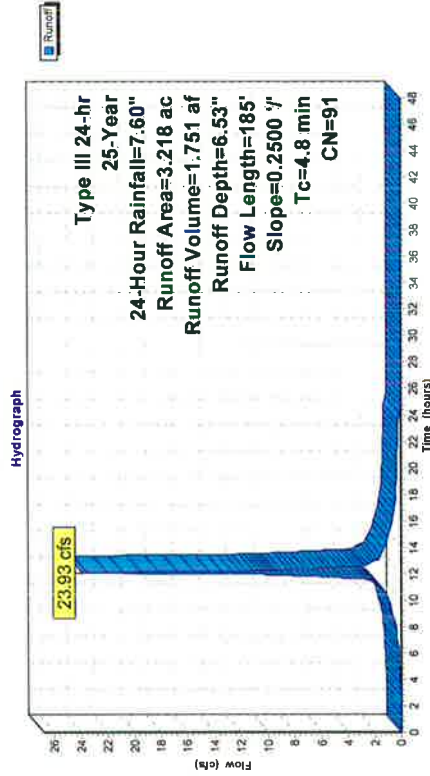
Runoff = 23.93 cfs @ 12.07 hrs, Volume= 1.751 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
3.218	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	185	0.2500	0.64		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment B5: B5



Summary for Subcatchment B6: B6

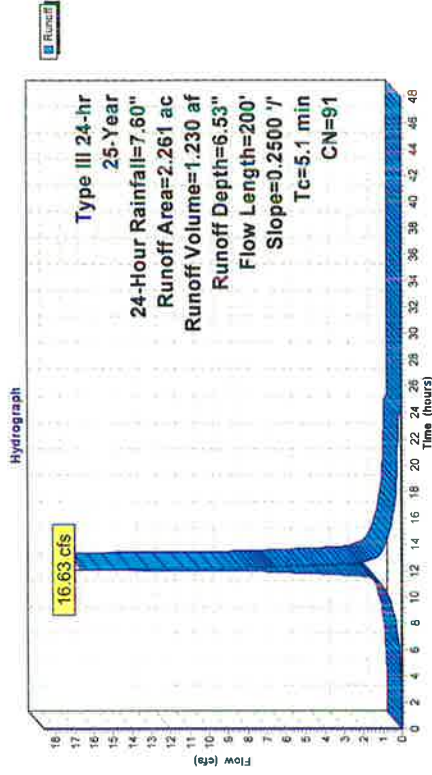
Runoff = 16.63 cfs @ 12.07 hrs, Volume= 1.230 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
2.261	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	200	0.2500	0.65		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment B6: B6

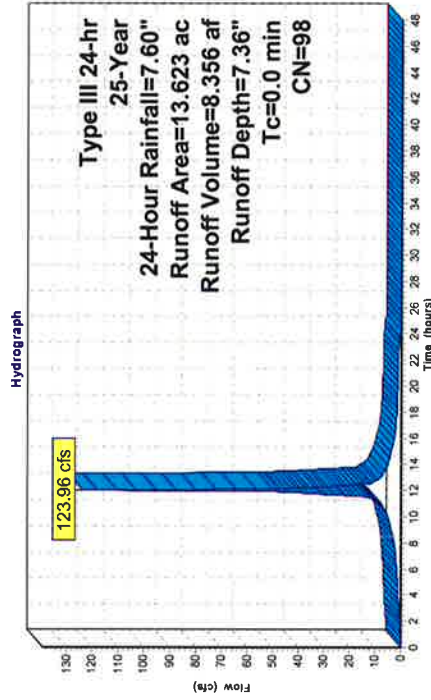


Summary for Subcatchment Basin: Basin

Runoff = 123.96 cfs @ 12.00 hrs, Volume= 8.356 af, Depth= 7.36"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
13.623	98	Water Surface, HSG D
13.623		100.00% Impervious Area

Subcatchment Basin: Basin



Summary for Subcatchment C1: C1

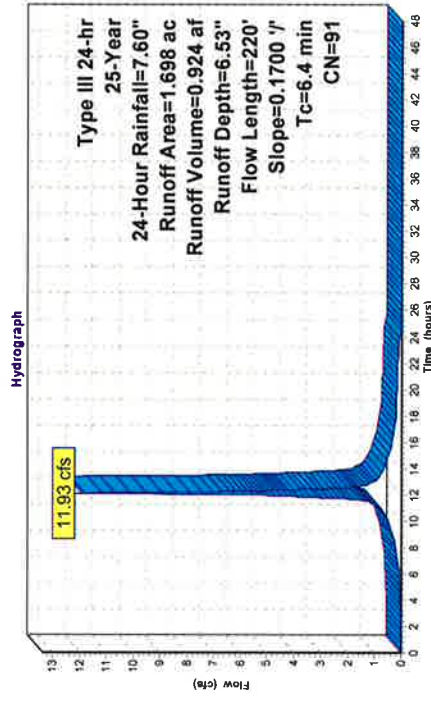
Runoff = 11.93 cfs @ 12.08 hrs, Volume= 0.924 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
1.698	91	
1.698		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	220	0.1700	0.57		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment C1: C1



Summary for Subcatchment C2: C2

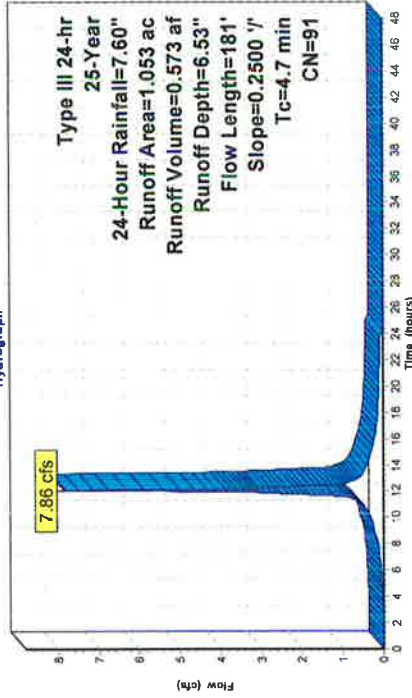
Runoff = 7.86 cfs @ 12.07 hrs, Volume= 0.573 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description			
1.053	91	100.00% Pervious Area			
Tc Length Slope Velocity Capacity Description					
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
4.7	181	0.2500	0.64		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment C2: C2

Hydrograph



Summary for Subcatchment C3: C3

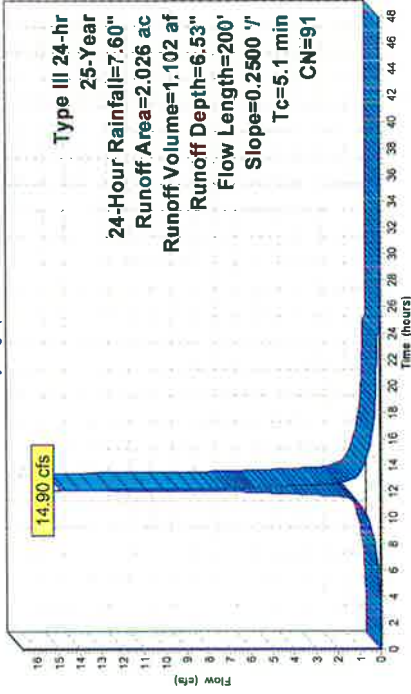
Runoff = 14.90 cfs @ 12.07 hrs, Volume= 1.102 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description			
2.026	91	100.00% Pervious Area			
Tc Length Slope Velocity Capacity Description					
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
5.1	200	0.2500	0.65		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment C3: C3

Hydrograph



Summary for Subcatchment C4: C4

Runoff = 15.35 cfs @ 12.06 hrs, Volume= 1.103 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

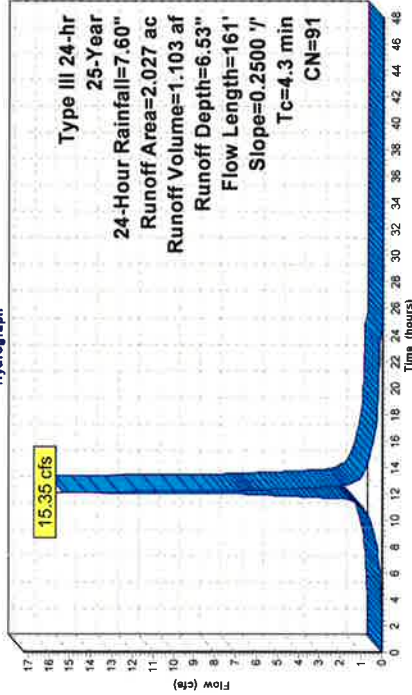
Area (ac)	CN	Description
2.027	91	100.00% Pervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
4.3	161	0.2500	0.62		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment C4: C4

Hydrograph



Summary for Subcatchment C5: C5

Runoff = 24.38 cfs @ 12.09 hrs, Volume= 1.868 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

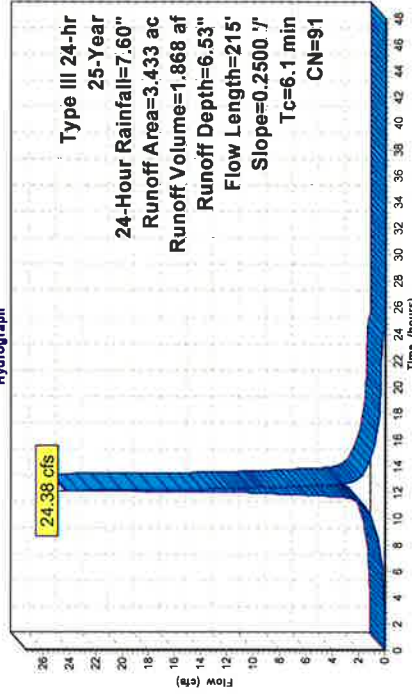
Area (ac)	CN	Description
3.433	91	100.00% Pervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
6.1	215	0.2500	0.59		

Sheet Flow,
 Grass: Short n= 0.150 P2= 3.75"

Subcatchment C5: C5

Hydrograph



Summary for Subcatchment C6: C6

Runoff = 14.52 cfs @ 12.06 hrs, Volume= 1,032 af, Depth= 6.53"

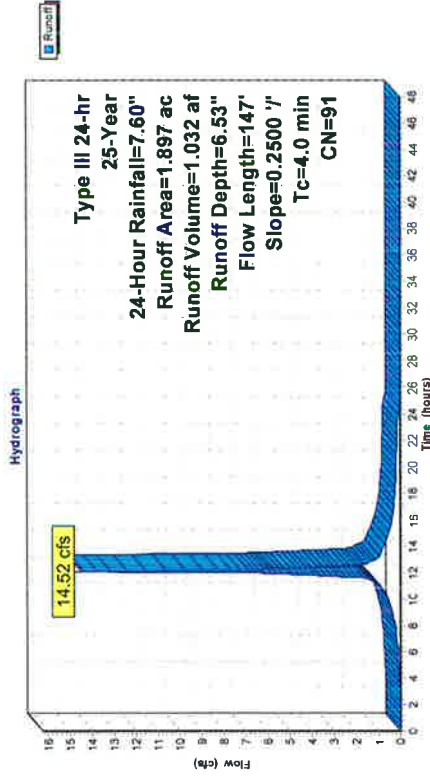
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
1.897	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	147	0.2500	0.61		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment C6: C6



Summary for Subcatchment C7: C7

Runoff = 20.81 cfs @ 12.07 hrs, Volume= 1,512 af, Depth= 6.53"

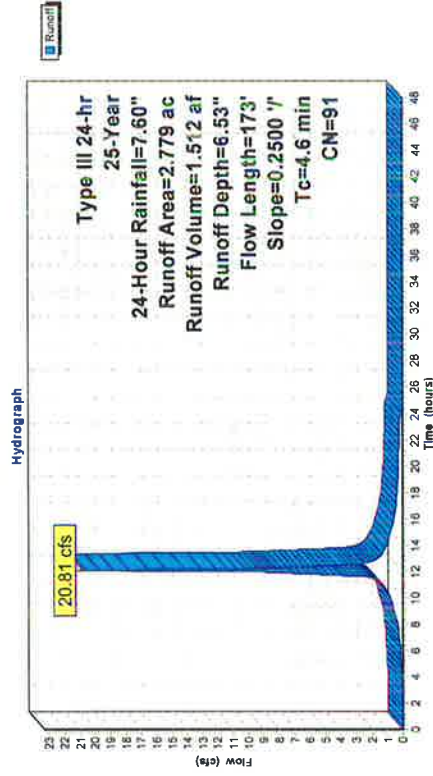
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
2.779	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	173	0.2500	0.63		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment C7: C7



Summary for Subcatchment D1: D1

Runoff = 16.67 cfs @ 12.10 hrs, Volume= 1,330 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

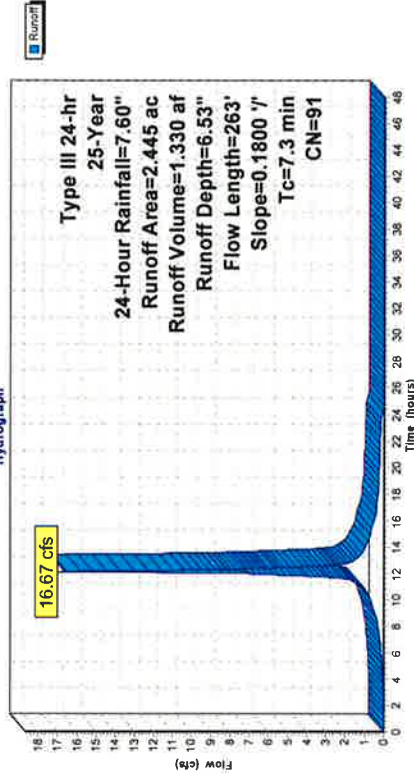
Area (ac)	CN	Description
2.445	91	
2.445	100.00%	Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	263	0.1800	0.60		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment D1: D1

Hydrograph



Summary for Subcatchment D2: D2

Runoff = 15.97 cfs @ 12.11 hrs, Volume= 1,291 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

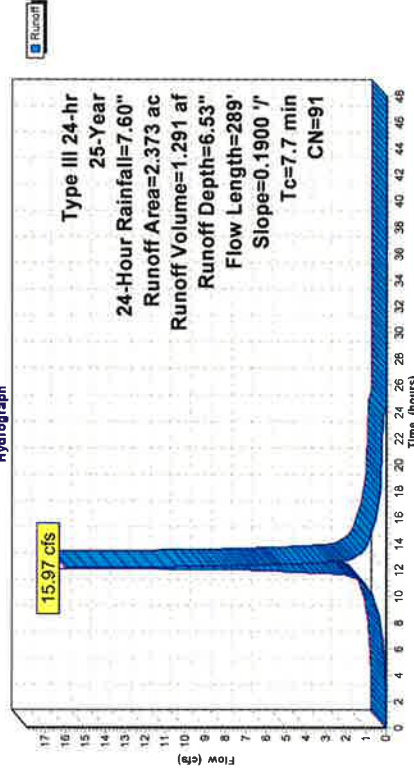
Area (ac)	CN	Description
2.373	91	
2.373	100.00%	Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	289	0.1900	0.63		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment D2: D2

Hydrograph



Summary for Subcatchment D3: D3

Runoff = 13.15 cfs @ 12.05 hrs, Volume= 0.928 af, Depth= 6.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

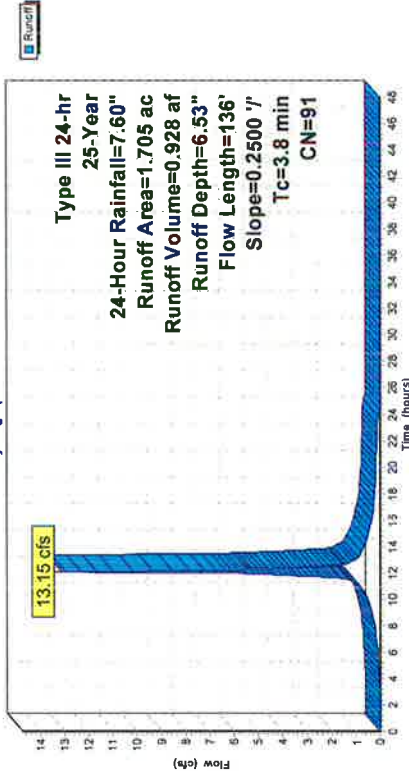
Area (ac)	CN	Description
1.705	91	100.00% Pervious Area
1.705		

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.8	136	0.2500	0.60		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment D3: D3

Hydrograph



Summary for Subcatchment D4: D4

Runoff = 27.33 cfs @ 12.07 hrs, Volume= 2.022 af, Depth= 6.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

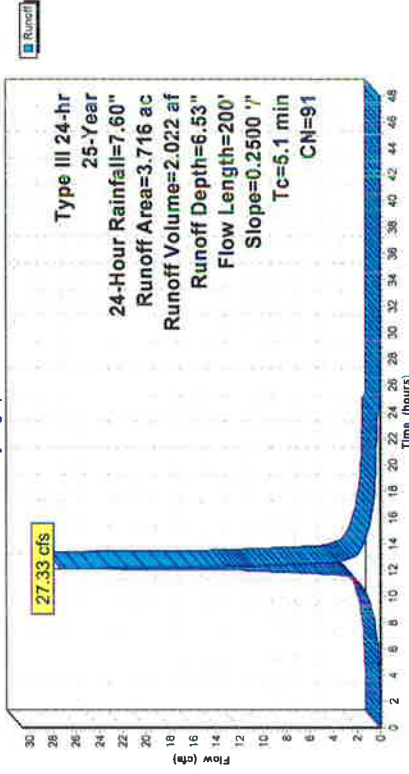
Area (ac)	CN	Description
3.716	91	100.00% Pervious Area
3.716		

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	200	0.2500	0.65		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment D4: D4

Hydrograph



Summary for Subcatchment D5: D5

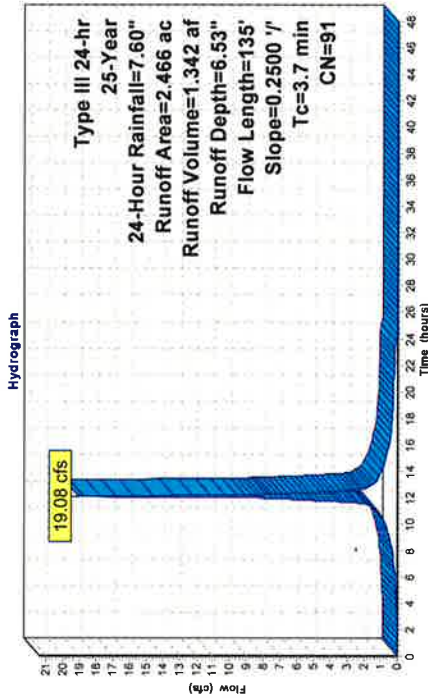
Runoff = 19.08 cfs @ 12.05 hrs, Volume= 1.342 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
2.466	91	
2.466	100.00%	Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.7	135	0.2500	0.60		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment D5: D5



Summary for Subcatchment E1: E1

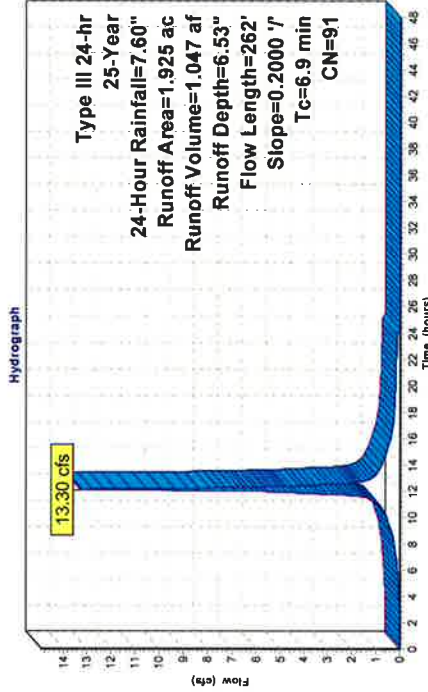
Runoff = 13.30 cfs @ 12.10 hrs, Volume= 1.047 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
1.925	91	
1.925	100.00%	Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	262	0.2000	0.63		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment E1: E1



Summary for Subcatchment E2: E2

Runoff = 19.62 cfs @ 12.07 hrs, Volume= 1,446 af, Depth= 6.53"

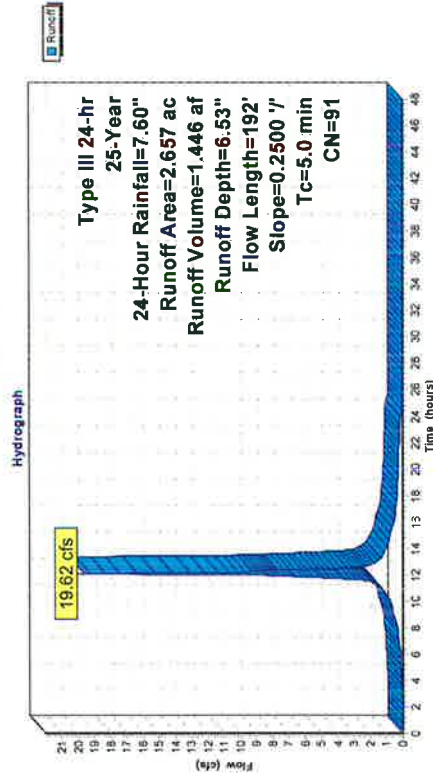
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
2,657	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	192	0.2500	0.65		

Sheet Flow, Range n= 0.130 P2= 3.75"

Subcatchment E2: E2



Summary for Subcatchment E3: E3

Runoff = 19.84 cfs @ 12.07 hrs, Volume= 1,447 af, Depth= 6.53"

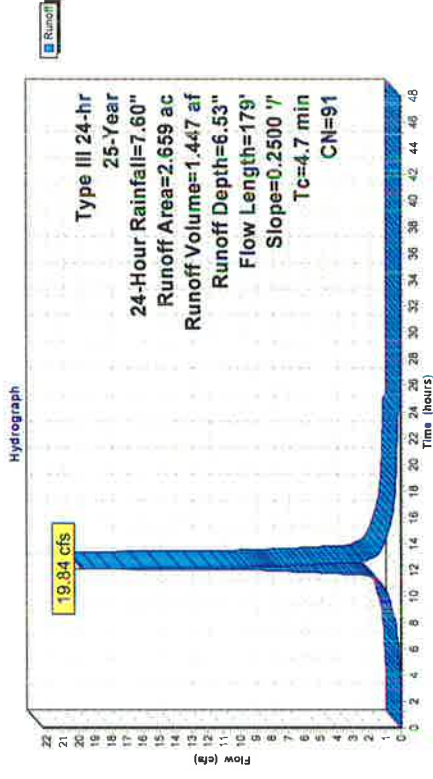
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
2,659	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.7	179	0.2500	0.64		

Sheet Flow, Range n= 0.130 P2= 3.75"

Subcatchment E3: E3



Summary for Subcatchment F1: F1

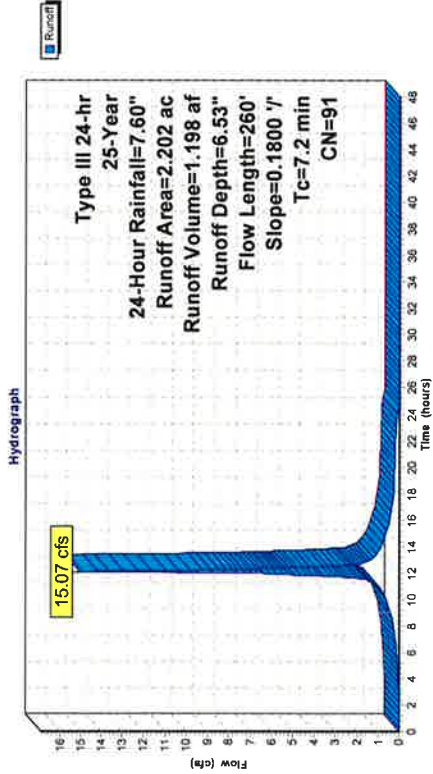
Runoff = 15.07 cfs @ 12.10 hrs, Volume= 1,198 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
2,202	91	100.00% Pervious Area

Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	260	0.1800	0.60	

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment F1: F1



Summary for Subcatchment F2: F2

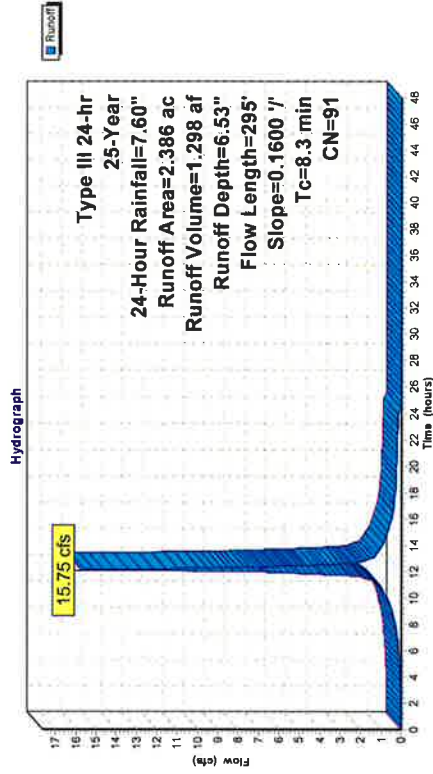
Runoff = 15.75 cfs @ 12.11 hrs, Volume= 1,298 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
2,386	91	100.00% Pervious Area

Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	295	0.1600	0.59	

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment F2: F2



Summary for Subcatchment F3: F3

Runoff = 28.57 cfs @ 12.08 hrs, Volume= 2.136 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

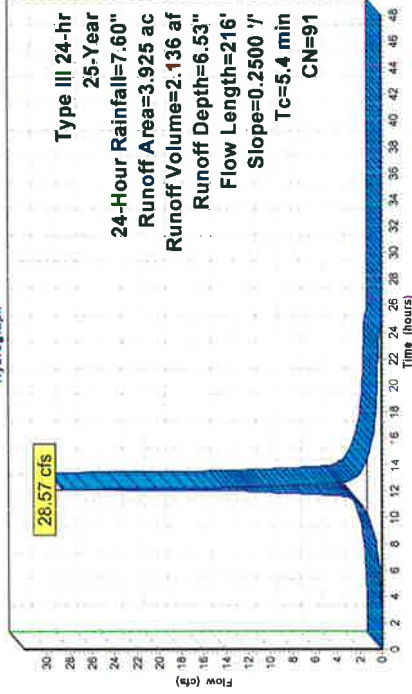
Area (ac)	CN	Description
3.925	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	216	0.2500	0.65		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment F3: F3

Hydrograph



Summary for Subcatchment F4: F4

Runoff = 14.76 cfs @ 12.06 hrs, Volume= 1.061 af, Depth= 3.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

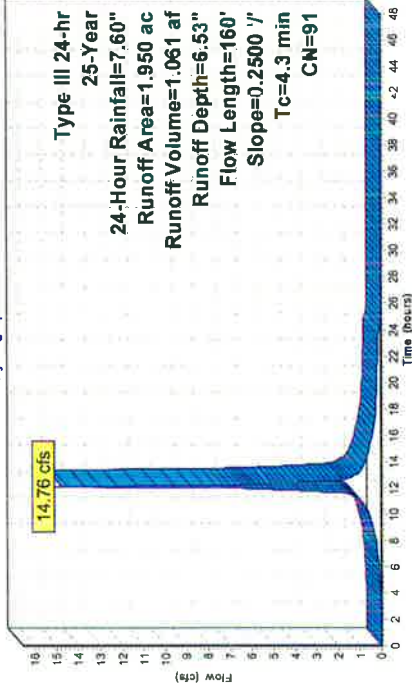
Area (ac)	CN	Description
1.950	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	160	0.2500	0.62		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment F4: F4

Hydrograph



Summary for Subcatchment F5: F5

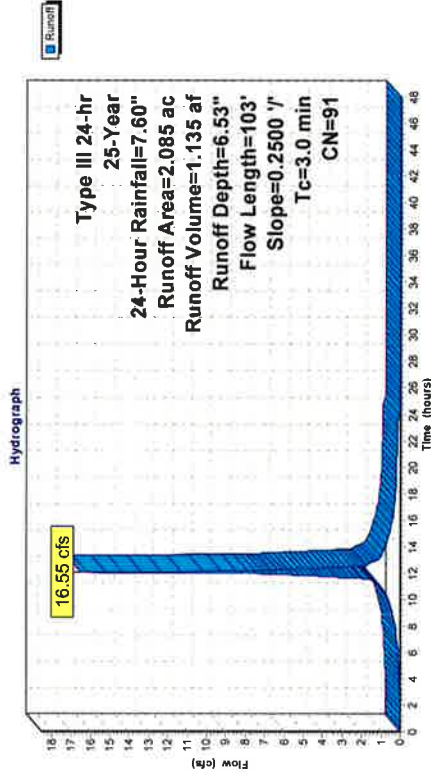
Runoff = 16.55 cfs @ 12.04 hrs, Volume= 1,135 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
2.085	91	
2.085		100.00% Pervious Area

Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	103	0.2500	0.57	

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment F5: F5



Summary for Subcatchment G1: G1

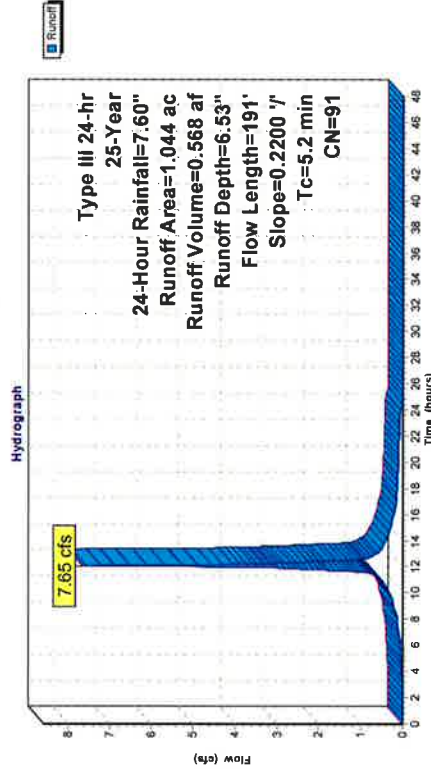
Runoff = 7.65 cfs @ 12.07 hrs, Volume= 0.568 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
1.044	91	
1.044		100.00% Pervious Area

Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	191	0.2200	0.61	

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment G1: G1



Summary for Subcatchment G2: G2

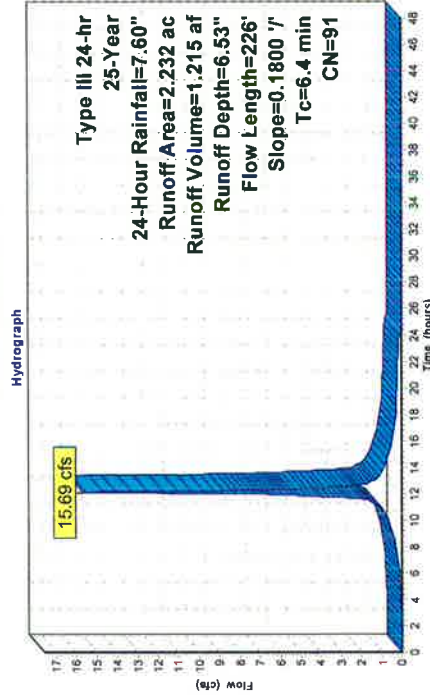
Runoff = 15.69 cfs @ 12.09 hrs, Volume= 1.215 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dl= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
2.232	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	226	0.1800	0.59		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment G2: G2



Summary for Subcatchment G3: G3

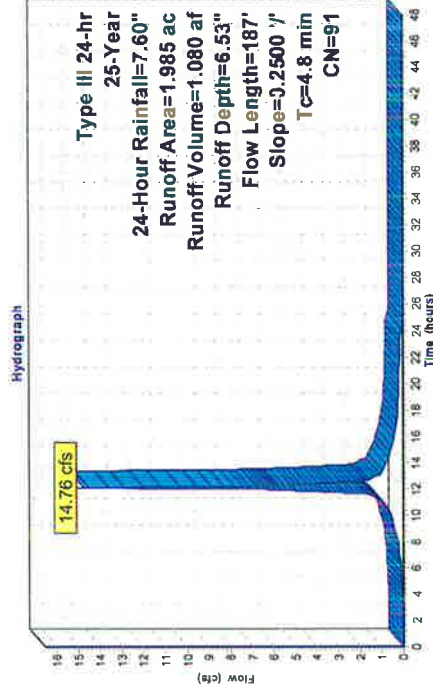
Runoff = 14.76 cfs @ 12.07 hrs, Volume= 1.080 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dl= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
1.985	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	187	0.2500	0.64		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment G3: G3



Summary for Subcatchment G4: G4

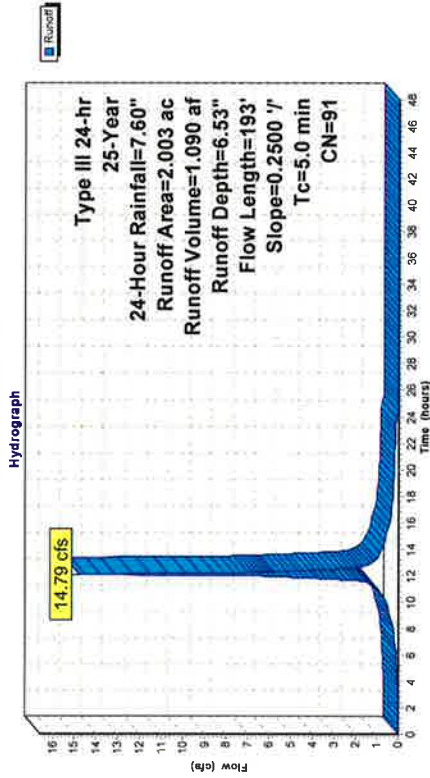
Runoff = 14.79 cfs @ 12.07 hrs, Volume= 1,090 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
2,003	91	
2,003		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	193	0.2500	0.65		

Sheet Flow, Range n= 0.130 P2= 3.75"

Subcatchment G4: G4



Summary for Subcatchment G5: G5

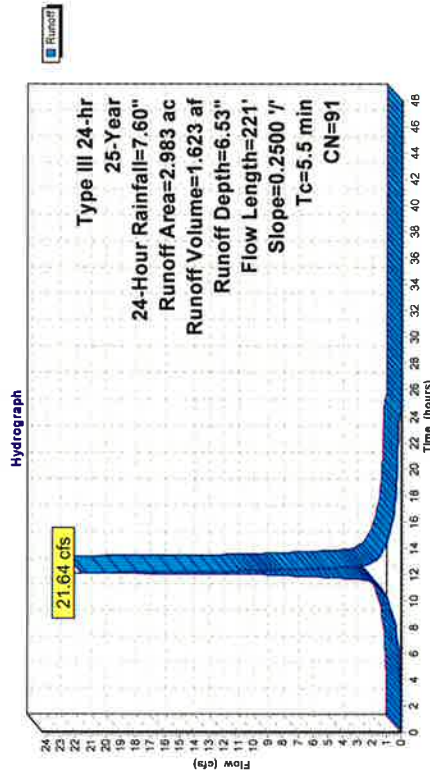
Runoff = 21.64 cfs @ 12.08 hrs, Volume= 1,623 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
2,983	91	
2,983		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	221	0.2500	0.66		

Sheet Flow, Range n= 0.130 P2= 3.75"

Subcatchment G5: G5



Summary for Subcatchment G6: G6

Runoff = 20.59 cfs @ 12.07 hrs, Volume= 1.512 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

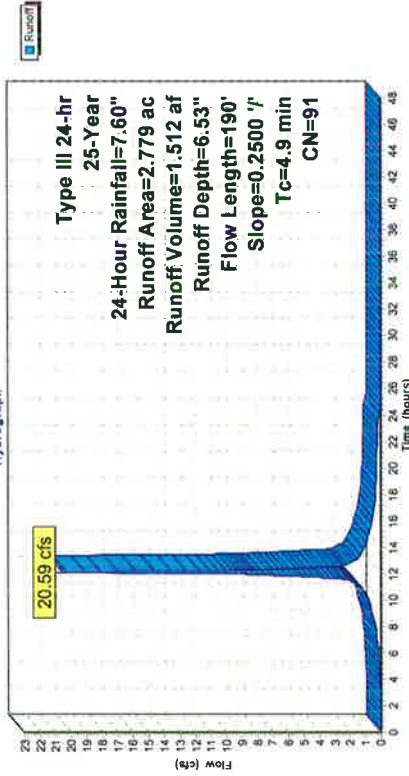
Area (ac)	CN	Description
2.779	91	100.00% Pervious Area
2.779		

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.9	190	0.2500	0.64		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment G6: G6

Hydrograph



Summary for Subcatchment H1: H1

Runoff = 12.90 cfs @ 12.09 hrs, Volume= 1.009 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

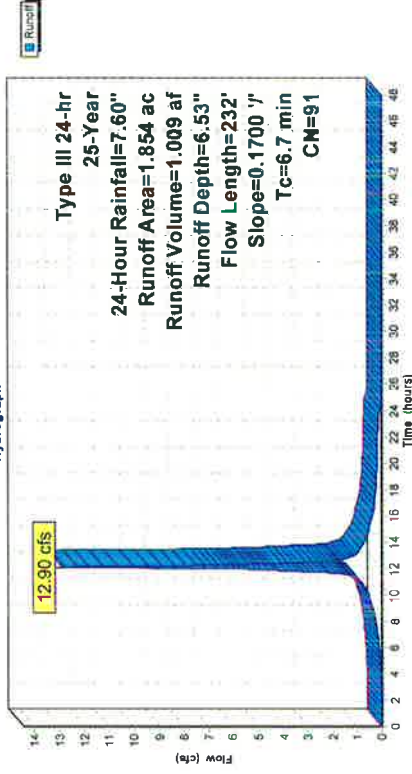
Area (ac)	CN	Description
1.854	91	100.00% Pervious Area
1.854		

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	232	0.1700	0.58		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment H1: H1

Hydrograph



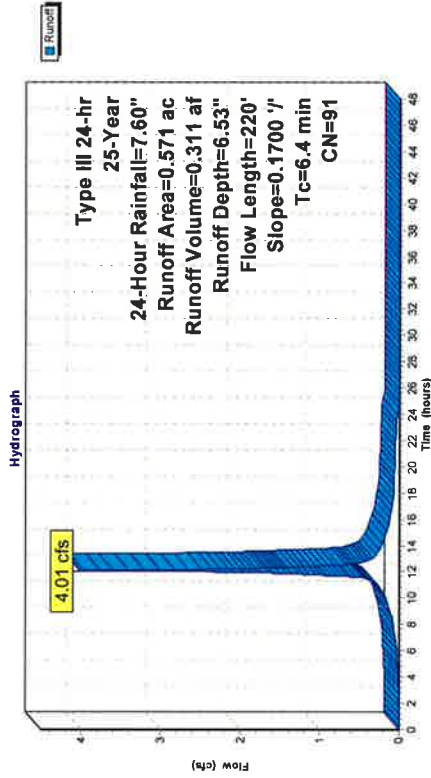
Summary for Subcatchment H2: H2

Runoff = 4.01 cfs @ 12.09 hrs, Volume= 0.311 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description			
0.571	91				
0.571	100	00% Pervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	220	0.1700	0.57		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment H2: H2



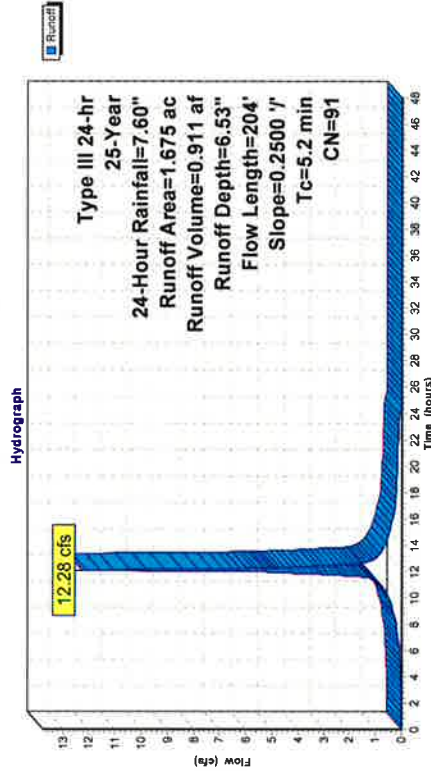
Summary for Subcatchment H3: H3

Runoff = 12.28 cfs @ 12.07 hrs, Volume= 0.911 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description			
1.675	91				
1.675	100	00% Pervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	204	0.2500	0.65		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment H3: H3



Summary for Subcatchment H4: H4

Runoff = 11.42 cfs @ 12.08 hrs, Volume= 0.854 af, Depth= 6.53"

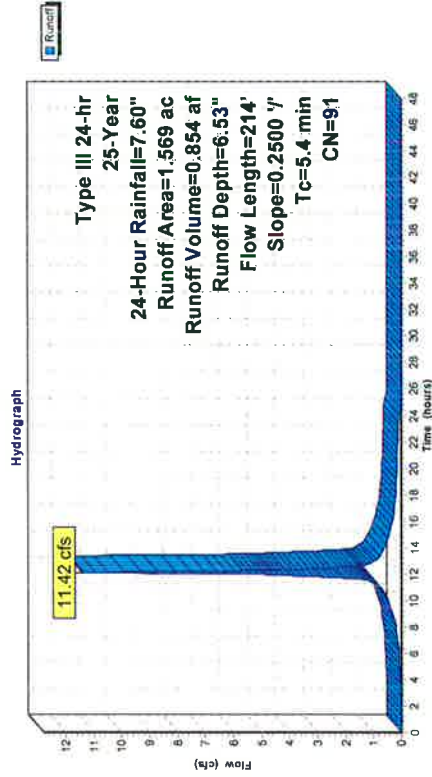
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
1.569	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	214	0.2500	0.66		

Sheet Flow, Range n= 0.130 P2= 3.75"

Subcatchment H4: H4



Summary for Subcatchment H5: H5

Runoff = 15.90 cfs @ 12.07 hrs, Volume= 1.163 af, Depth= 6.53"

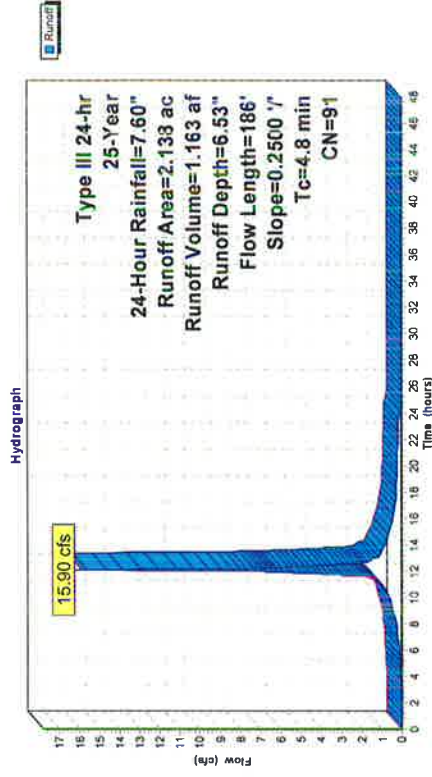
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
2.138	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	186	0.2500	0.64		

Sheet Flow, Range n= 0.130 P2= 3.75"

Subcatchment H5: H5



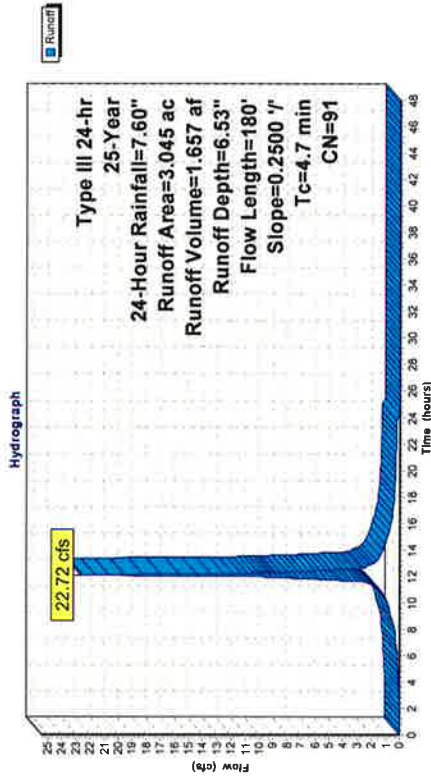
Summary for Subcatchment H6: H6

Runoff = 22.72 cfs @ 12.07 hrs, Volume= 1,657 af, Depth= 6.53"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description			
3.045	91	100.00% Pervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.7	180	0.2500	0.64		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment H6: H6



Summary for Reach CULVERTS 1: Culverts 1

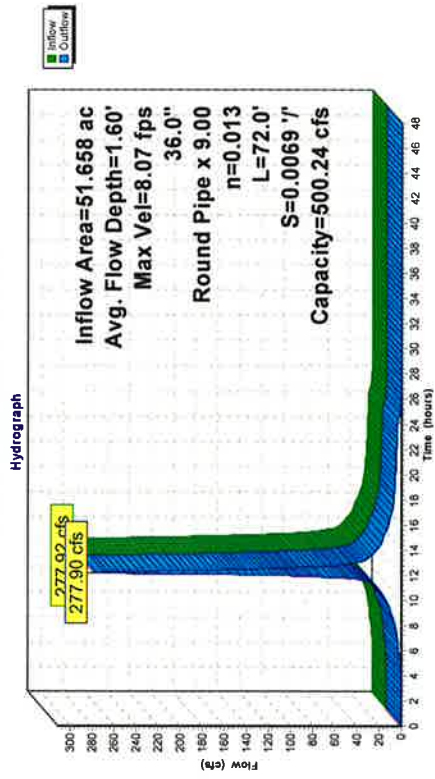
Inflow Area = 51.658 ac, 0.00% impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 277.92 cfs @ 12.18 hrs, Volume= 28,110 af
 Outflow = 277.90 cfs @ 12.18 hrs, Volume= 28,110 af, Atten= 0%, Lag= 0.1 min
 Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 8.07 fps, Min. Travel Time= 0.1 min
 Avg. Velocity= 2.35 fps, Avg. Travel Time= 0.5 min

Peak Storage= 2,480 cf @ 12.18 hrs
 Average Depth at Peak Storage= 1.60'
 Bank-Full Depth= 3.00' Flow Area= 63.6 sf, Capacity= 500.24 cfs

A factor of 9.00 has been applied to the storage and discharge capacity
 36.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 72.0' Slope= 0.0069 y'
 Inlet Invert= 553.00', Outlet Invert= 552.50'



Reach CULVERTS 1: Culverts 1



Summary for Reach CULVERTS 2: Culverts 2

Inflow Area = 41.010 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 237.42 cfs @ 12.16 hrs, Volume= 22,315 af
 Outflow = 237.40 cfs @ 12.16 hrs, Volume= 22,315 af, Atten= 0%, Lag= 0.1 min

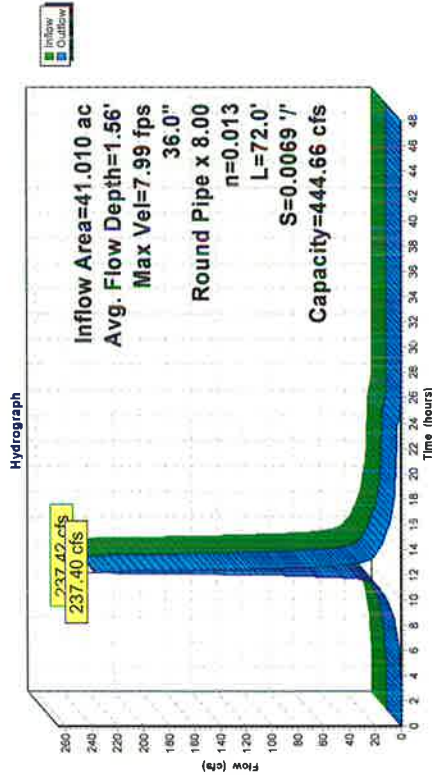
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 7.99 fps, Min. Travel Time= 0.2 min
 Avg. Velocity= 2.43 fps, Avg. Travel Time= 0.5 min

Peak Storage= 2,139 cf @ 12.16 hrs
 Average Depth at Peak Storage= 1.56'
 Bank-Full Depth= 3.00' Flow Area= 56.5 sf, Capacity= 444.66 cfs

A factor of 8.00 has been applied to the storage and discharge capacity
 36.0" Round Pipe
 n= 0.013 Corrugated PE - smooth interior
 Length= 72.0' Slope= 0.0069 /'
 Inlet Invert= 553.00', Outlet Invert= 552.50'



Reach CULVERTS 2: Culverts 2



Summary for Reach DA1: DA1

Inflow Area = 1,178 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 8.02 cfs @ 12.11 hrs, Volume= 0.641 af
 Outflow = 7.99 cfs @ 12.12 hrs, Volume= 0.641 af, Atten= 0%, Lag= 3.5 min

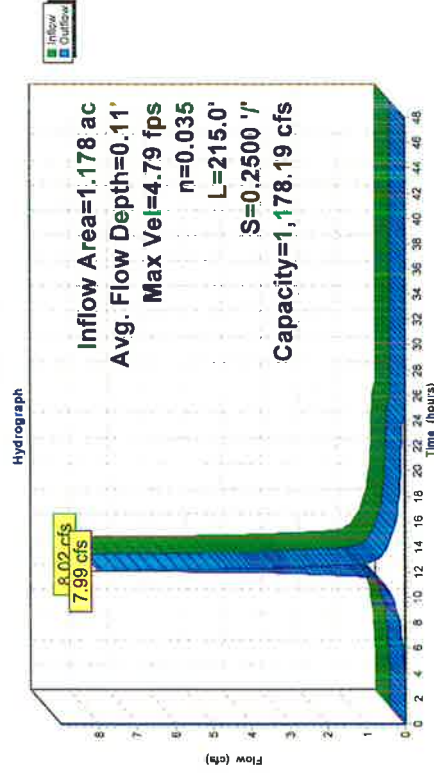
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.79 fps, Min. Travel Time= 0.7 min
 Avg. Velocity= 1.67 fps, Avg. Travel Time= 2.2 min

Peak Storage= 359 cf @ 12.12 hrs
 Average Depth at Peak Storage= 0.11'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 /' Top Width= 27.00'
 Length= 215.0' Slope= 0.2500 /'
 Inlet Invert= 666.00', Outlet Invert= 612.25'



Reach DA1: DA1



Summary for Reach DA2: DA2

Inflow Area = 4,349 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 29.93 cfs @ 12.10 hrs, Volume= 2,366 af
 Outflow = 29.90 cfs @ 12.11 hrs, Volume= 2,366 af, Atten= 0%, Lag= 0.2 min

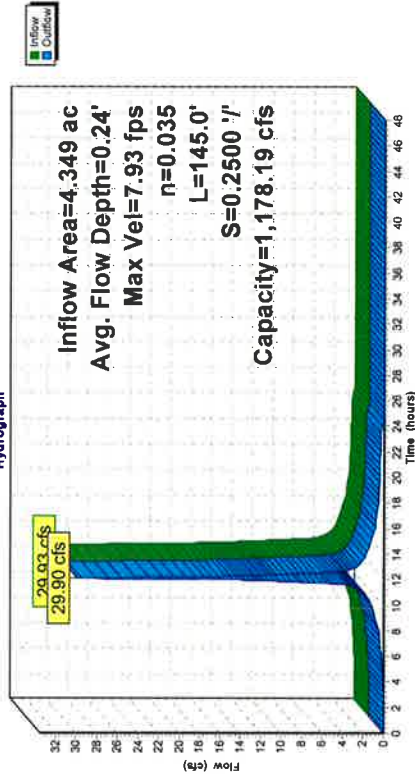
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 7.93 fps, Min. Travel Time= 0.3 min
 Avg. Velocity = 2.05 fps, Avg. Travel Time= 1.2 min

Peak Storage= 547 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.24'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 : 1 Top Width= 27.00'
 Length= 145.0' Slope= 0.2500 : 1
 Inlet Invert= 612.25', Outlet Invert= 576.00'



Reach DA2: DA2



Summary for Reach DB1: DB1

Inflow Area = 2,275 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 15.24 cfs @ 12.12 hrs, Volume= 1,238 af
 Outflow = 15.20 cfs @ 12.12 hrs, Volume= 1,238 af, Atten= 0%, Lag= 0.4 min

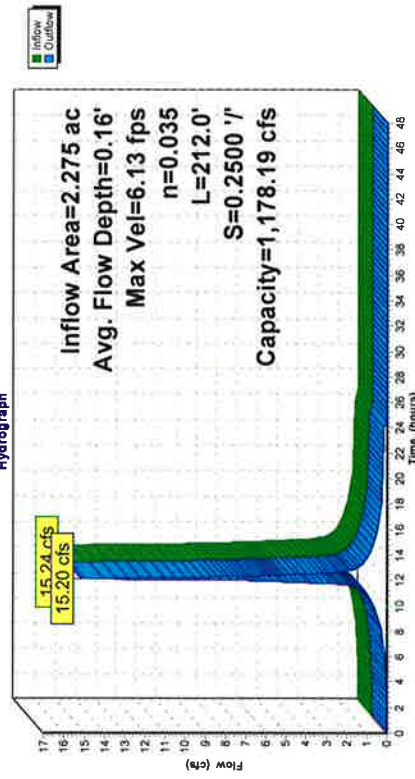
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 6.13 fps, Min. Travel Time= 0.6 min
 Avg. Velocity = 1.81 fps, Avg. Travel Time= 2.0 min

Peak Storage= 526 cf @ 12.12 hrs
 Average Depth at Peak Storage= 0.16'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 : 1 Top Width= 27.00'
 Length= 212.0' Slope= 0.2500 : 1
 Inlet Invert= 665.84', Outlet Invert= 612.84'



Reach DB1: DB1



Summary for Reach DB2: DB2

Inflow Area = 5.350 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 36.43 cfs @ 12.11 hrs, Volume= 2.911 af
 Outflow = 36.40 cfs @ 12.11 hrs, Volume= 2.911 af, Atten= 0%, Lag= 0.2 min

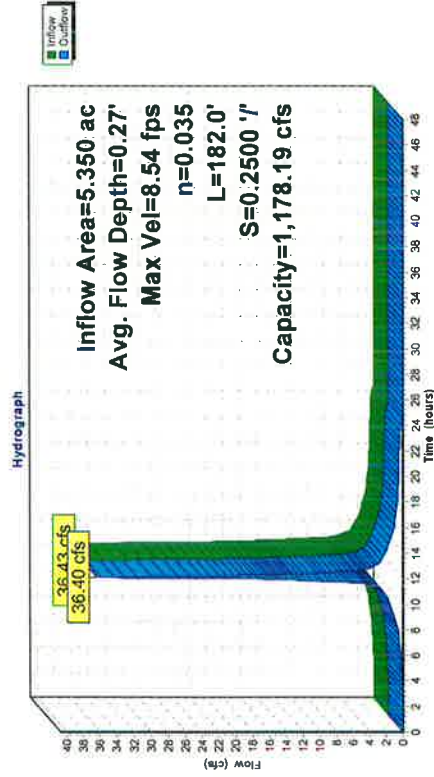
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 8.54 fps, Min. Travel Time= 0.4 min
 Avg. Velocity = 2.17 fps, Avg. Travel Time= 1.4 min

Peak Storage= 775 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.27'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 ' Top Width= 27.00'
 Length= 182.0' Slope= 0.2500 ' /'
 Inlet Invert= 612.84', Outlet Invert= 567.34'



Reach DB2: DB2



Summary for Reach DC1: DC1

Inflow Area = 1.053 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 7.26 cfs @ 12.10 hrs, Volume= 0.573 af
 Outflow = 7.26 cfs @ 12.10 hrs, Volume= 0.573 af, Atten= 0%, Lag= 0.1 min

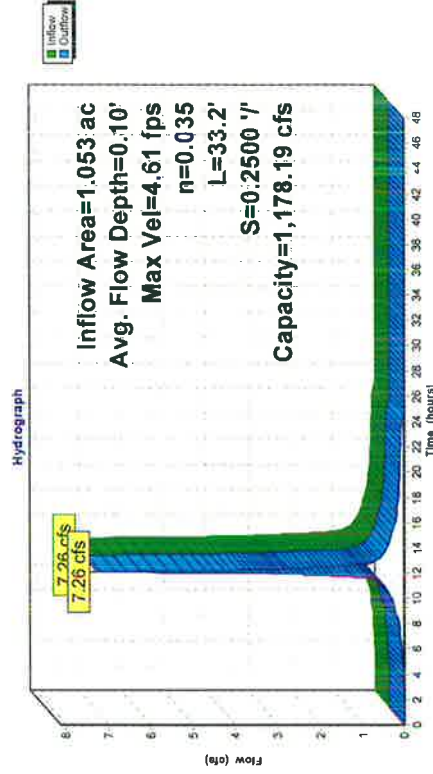
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.61 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 1.65 fps, Avg. Travel Time= 0.3 min

Peak Storage= 52 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.10'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 ' Top Width= 27.00'
 Length= 33.2' Slope= 0.2500 ' /'
 Inlet Invert= 672.10', Outlet Invert= 663.80'



Reach DC1: DC1



Summary for Reach DC2: DC2

Inflow Area = 2,751 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 18.71 cfs @ 12.11 hrs, Volume= 1,497 af
 Outflow = 18.70 cfs @ 12.11 hrs, Volume= 1,497 af, Atten= 0%, Lag= 0.2 min

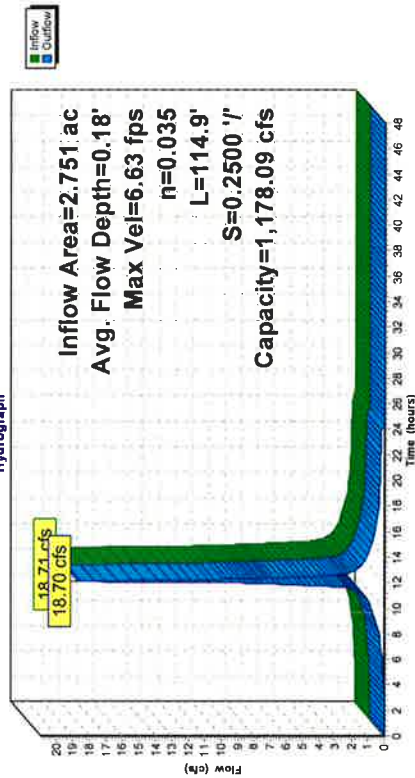
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 6.63 fps, Min. Travel Time= 0.3 min
 Avg. Velocity = 1.86 fps, Avg. Travel Time= 1.0 min

Peak Storage= 324 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.18'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.09 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0:1' Top Width= 27.00'
 Length= 114.9' Slope= 0.2500 1'
 Inlet Invert= 663.80', Outlet Invert= 635.08'



Reach DC2: DC2



Summary for Reach DC3: DC3

Inflow Area = 4,778 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 32.70 cfs @ 12.10 hrs, Volume= 2,600 af
 Outflow = 32.69 cfs @ 12.10 hrs, Volume= 2,600 af, Atten= 0%, Lag= 0.1 min

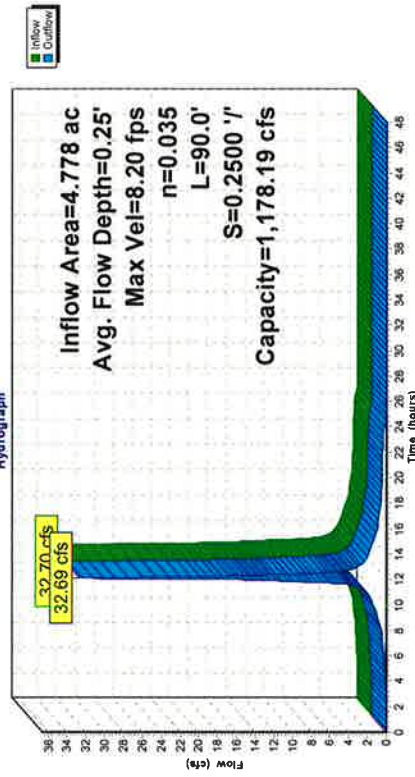
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 8.20 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 2.09 fps, Avg. Travel Time= 0.7 min

Peak Storage= 359 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.25'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0:1' Top Width= 27.00'
 Length= 90.0' Slope= 0.2500 1'
 Inlet Invert= 635.08', Outlet Invert= 612.58'



Reach DC3: DC3



Summary for Reach DC4: DC4

Inflow Area = 6.804 ac, 0.00% impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 46.80 cfs @ 12.10 hrs, Volume= 3,702 af
 Outflow = 46.79 cfs @ 12.10 hrs, Volume= 3,702 af, Atten= 0%, Lag= 0.1 min

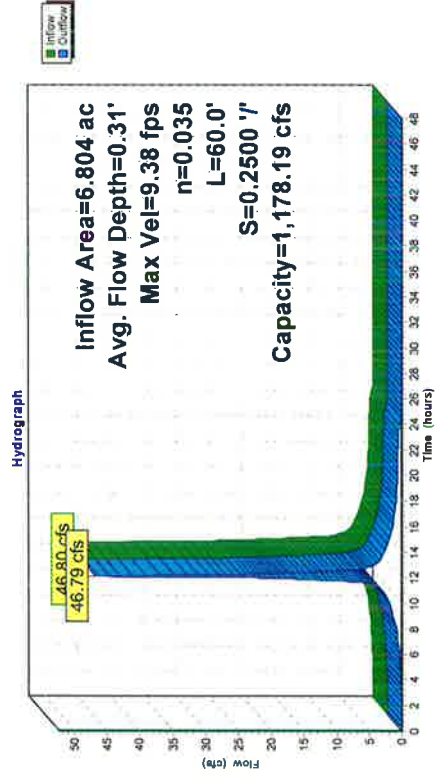
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 9.38 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 2.31 fps, Avg. Travel Time= 0.4 min

Peak Storage= 299 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.31'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0' Top Width= 27.00'
 Length= 60.0' Slope= 0.2500 '/'
 Inlet Invert= 612.58', Outlet Invert= 597.58'



Reach DC4: DC4



Summary for Reach DC5: DC5

Inflow Area = 8.701 ac, 0.00% impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 60.03 cfs @ 12.10 hrs, Volume= 4,735 af
 Outflow = 60.01 cfs @ 12.10 hrs, Volume= 4,735 af, Atten= 0%, Lag= 0.1 min

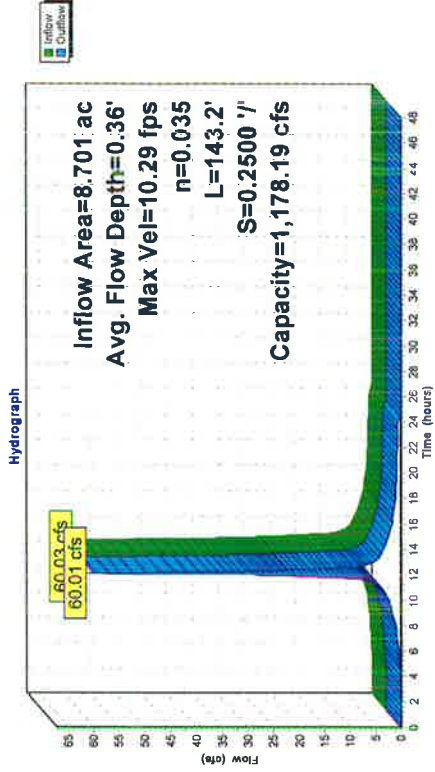
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 10.29 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 2.50 fps, Avg. Travel Time= 1.0 min

Peak Storage= 835 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.36'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0' Top Width= 27.00'
 Length= 143.2' Slope= 0.2500 '/'
 Inlet Invert= 597.58', Outlet Invert= 561.78'



Reach DC5: DC5



Summary for Reach DD1: DD1

Inflow Area = 2,445 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 inflow = 15.89 cfs @ 12.13 hrs, Volume= 1,330 af
 Outflow = 15.89 cfs @ 12.13 hrs, Volume= 1,330 af, Atten= 0%, Lag= 0.2 min

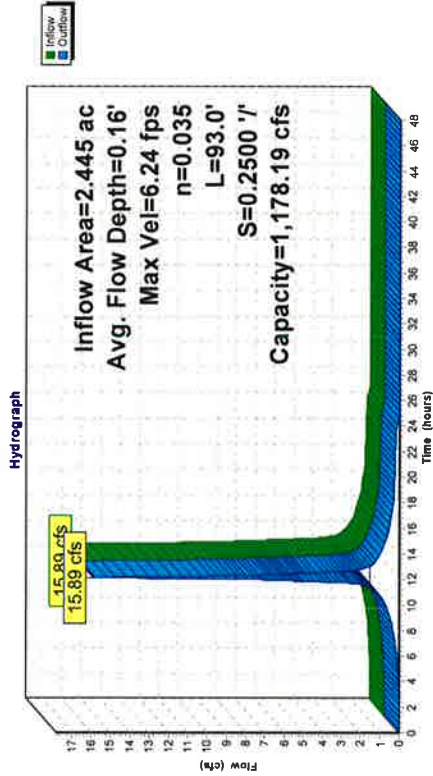
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 6.24 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 1.82 fps, Avg. Travel Time= 0.9 min

Peak Storage= 237 cf @ 12.13 hrs
 Average Depth at Peak Storage= 0.16'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0:1' Top Width= 27.00'
 Length= 93.0' Slope= 0.2500 1'
 Inlet Invert= 621.74', Outlet Invert= 598.49'



Reach DD1: DD1



Summary for Reach DD2: DD2

Inflow Area = 4,818 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 inflow = 31.24 cfs @ 12.13 hrs, Volume= 2,622 af
 Outflow = 31.24 cfs @ 12.13 hrs, Volume= 2,622 af, Atten= 0%, Lag= 0.1 min

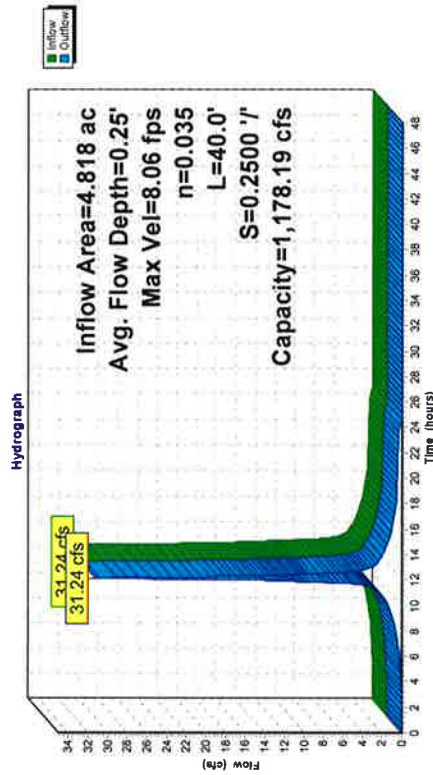
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 8.06 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 2.09 fps, Avg. Travel Time= 0.3 min

Peak Storage= 155 cf @ 12.13 hrs
 Average Depth at Peak Storage= 0.25'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0:1' Top Width= 27.00'
 Length= 40.0' Slope= 0.2500 1'
 Inlet Invert= 598.50', Outlet Invert= 588.50'



Reach DD2: DD2



Summary for Reach DD3: DD3

Inflow Area = 6.523 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 42.02 cfs @ 12.12 hrs, Volume= 3.549 af
 Outflow = 42.00 cfs @ 12.12 hrs, Volume= 3.549 af, Atten= 0%, Lag= 0.2 min

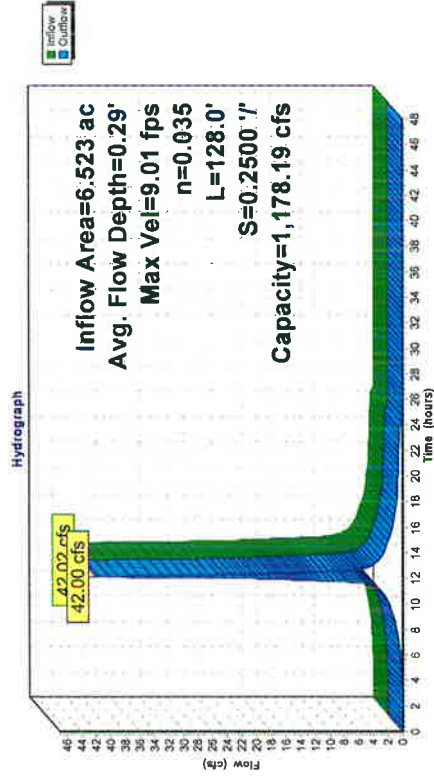
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 9.01 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 2.28 fps, Avg. Travel Time= 0.9 min

Peak Storage= 596 cf @ 12.12 hrs
 Average Depth at Peak Storage= 0.29'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0' Top Width= 27.00'
 Length= 128.0' Slope= 0.2500 '/'
 Inlet Invert= 568.50', Outlet Invert= 556.50'



Reach DD3: DD3



Summary for Reach DE1: DE1

Inflow Area = 1.925 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 12.47 cfs @ 12.13 hrs, Volume= 1.047 af
 Outflow = 12.45 cfs @ 12.13 hrs, Volume= 1.047 af, Atten= 0%, Lag= 0.3 min

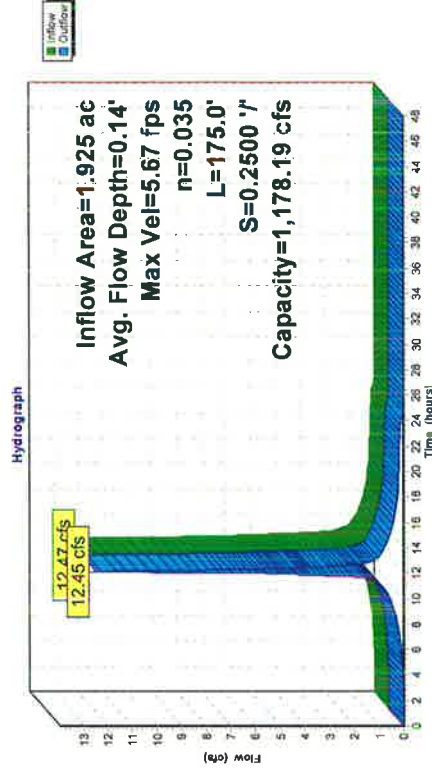
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.67 fps, Min. Travel Time= 0.5 min
 Avg. Velocity = 1.75 fps, Avg. Travel Time= 1.7 min

Peak Storage= 384 cf @ 12.13 hrs
 Average Depth at Peak Storage= 0.14'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0' Top Width= 27.00'
 Length= 175.0' Slope= 0.2500 '/'
 Inlet Invert= 597.00', Outlet Invert= 553.25'



Reach DE1: DE1



Summary for Reach DF1: DF1

Inflow Area = 2.386 ac, 0.00% impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 15.10 cfs @ 12.14 hrs, Volume = 1,298 af
 Outflow = 15.10 cfs @ 12.14 hrs, Volume = 1,298 af, Atten = 0%, Lag = 0.1 min

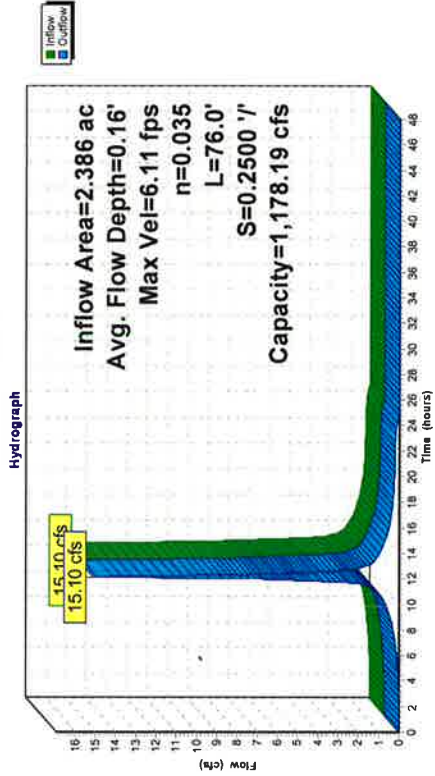
Routing by Stor-Ind method, Time Span = 0.00-48.00 hrs, dt = 0.01 hrs
 Max. Velocity = 6.11 fps, Min. Travel Time = 0.2 min
 Avg. Velocity = 1.81 fps, Avg. Travel Time = 0.7 min

Peak Storage = 188 cf @ 12.14 hrs
 Average Depth at Peak Storage = 0.16'
 Bank-Full Depth = 2.00' Flow Area = 42.0 sf, Capacity = 1,178.19 cfs

15.00' x 2.00' deep channel, n = 0.035
 Side Slope Z-value = 3.0'/' Top Width = 27.00'
 Length = 76.0' Slope = 0.2500 '/'
 Inlet Invert = 622.00', Outlet Invert = 603.00'



Reach DF1: DF1



Summary for Reach DF2: DF2

Inflow Area = 4.588 ac, 0.00% impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 29.42 cfs @ 12.13 hrs, Volume = 2,497 af
 Outflow = 29.42 cfs @ 12.14 hrs, Volume = 2,497 af, Atten = 0%, Lag = 0.1 min

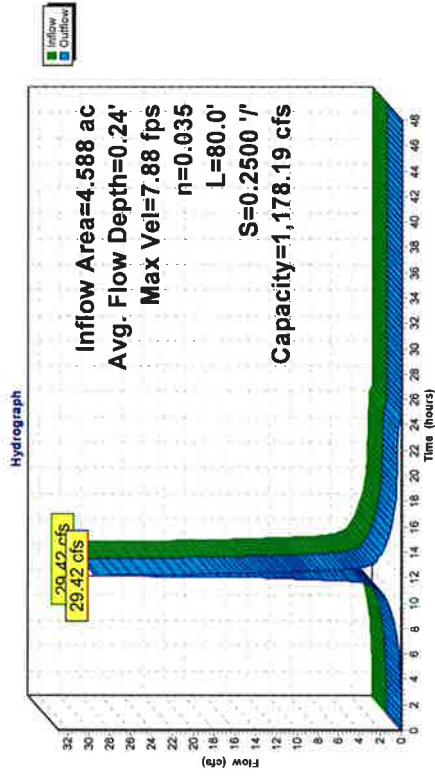
Routing by Stor-Ind method, Time Span = 0.00-48.00 hrs, dt = 0.01 hrs
 Max. Velocity = 7.88 fps, Min. Travel Time = 0.2 min
 Avg. Velocity = 2.07 fps, Avg. Travel Time = 0.6 min

Peak Storage = 299 cf @ 12.14 hrs
 Average Depth at Peak Storage = 0.24'
 Bank-Full Depth = 2.00' Flow Area = 42.0 sf, Capacity = 1,178.19 cfs

15.00' x 2.00' deep channel, n = 0.035
 Side Slope Z-value = 3.0'/' Top Width = 27.00'
 Length = 80.0' Slope = 0.2500 '/'
 Inlet Invert = 603.00', Outlet Invert = 583.00'



Reach DF2: DF2



Summary for Reach DF3: DF3

Inflow Area = 6.538 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 41.93 cfs @ 12.12 hrs, Volume= 3.558 af
 Outflow = 41.92 cfs @ 12.12 hrs, Volume= 3.558 af, Atten= 0%, Lag= 0.1 min

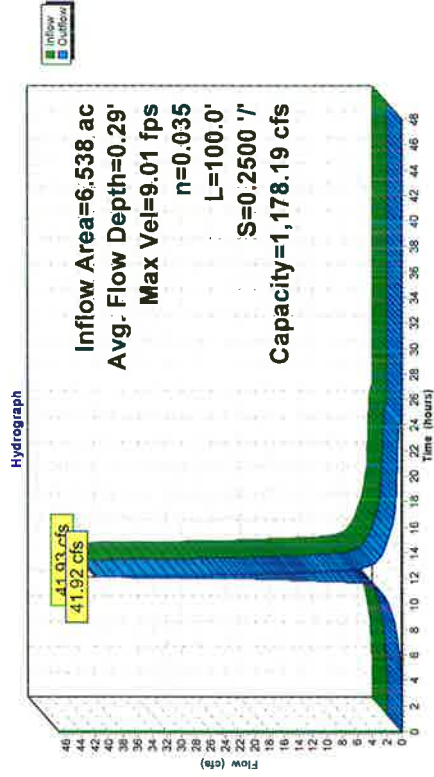
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max Velocity= 9.01 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 2.29 fps, Avg. Travel Time= 0.7 min

Peak Storage= 465 cf @ 12.12 hrs
 Average Depth at Peak Storage= 0.29'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 ' Top Width= 27.00'
 Length= 100.0' Slope= 0.2500 ' / '
 Inlet Invert= 583.00', Outlet Invert= 558.00'



Reach DF3: DF3



Summary for Reach DG1: DG1

Inflow Area = 3.276 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 22.30 cfs @ 12.11 hrs, Volume= 1.783 af
 Outflow = 22.27 cfs @ 12.11 hrs, Volume= 1.783 af, Atten= 0%, Lag= 0.3 min

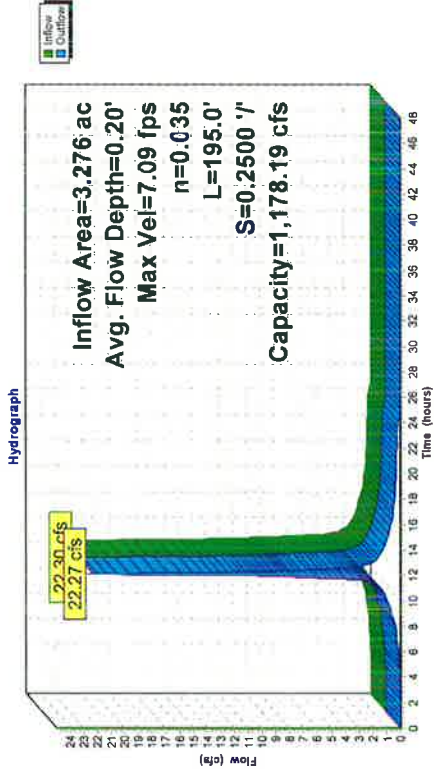
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max Velocity= 7.09 fps, Min. Travel Time= 0.5 min
 Avg. Velocity = 1.92 fps, Avg. Travel Time= 1.7 min

Peak Storage= 612 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.20'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 ' Top Width= 27.00'
 Length= 195.0' Slope= 0.2500 ' / '
 Inlet Invert= 662.00', Outlet Invert= 613.25'



Reach DG1: DG1



Summary for Reach DG2: DG2

Inflow Area = 7.264 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 50.07 cfs @ 12.10 hrs, Volume= 3.953 af
 Outflow = 50.02 cfs @ 12.11 hrs, Volume= 3.953 af, Atten= 0%, Lag= 0.2 min

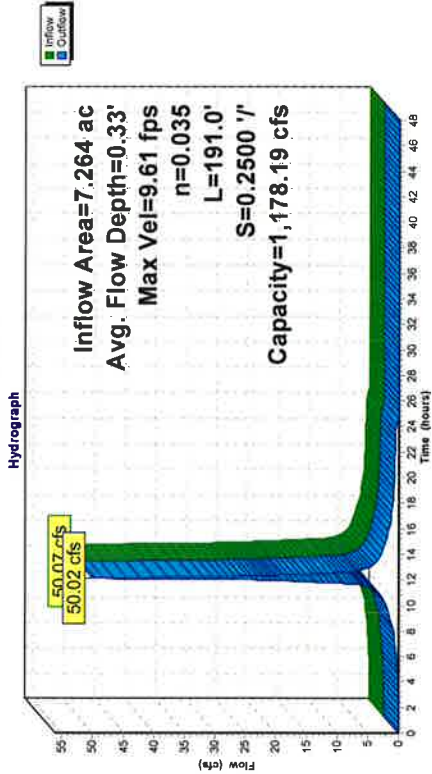
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max Velocity= 9.61 fps, Min. Travel Time= 0.3 min
 Avg. Velocity = 2.37 fps, Avg. Travel Time= 1.3 min

Peak Storage= 993 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.33'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0' Top Width= 27.00'
 Length= 191.0' Slope= 0.2500 '/'
 Inlet Invert= 613.25', Outlet Invert= 565.50'



Reach DG2: DG2



Summary for Reach DH1: DH1

Inflow Area = 2.425 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 16.47 cfs @ 12.11 hrs, Volume= 1.320 af
 Outflow = 16.44 cfs @ 12.12 hrs, Volume= 1.320 af, Atten= 0%, Lag= 0.3 min

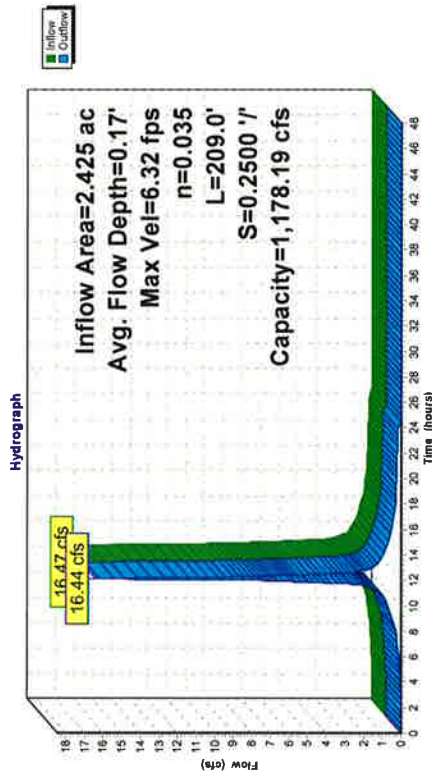
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max Velocity= 6.32 fps, Min. Travel Time= 0.6 min
 Avg. Velocity = 1.82 fps, Avg. Travel Time= 1.9 min

Peak Storage= 544 cf @ 12.12 hrs
 Average Depth at Peak Storage= 0.17'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0' Top Width= 27.00'
 Length= 209.0' Slope= 0.2500 '/'
 Inlet Invert= 666.75', Outlet Invert= 614.50'



Reach DH1: DH1



Summary for Reach DH2: DH2

Inflow Area = 5.669 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 38.94 cfs @ 12.10 hrs, Volume= 3.085 af
 Outflow = 38.90 cfs @ 12.11 hrs, Volume= 3.085 af, Atten= 0%, Lag= 0.2 min

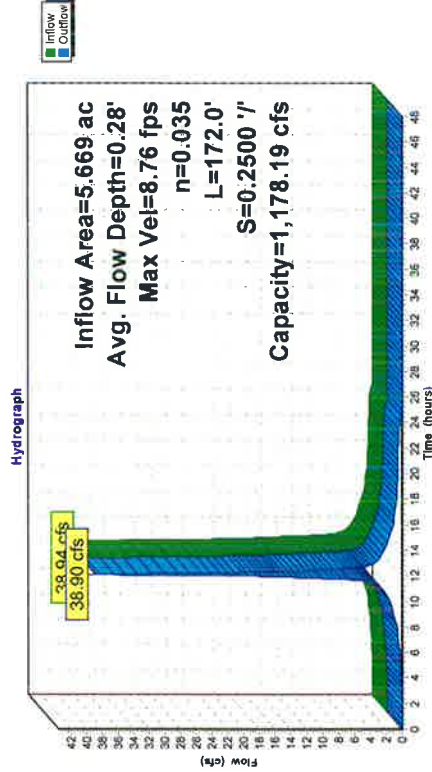
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 8.76 fps, Min. Travel Time= 0.3 min
 Avg. Velocity = 2.20 fps, Avg. Travel Time= 1.3 min

Peak Storage= 764 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.28'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0' Top Width= 27.00'
 Length= 172.0' Slope= 0.2500'/'
 Inlet Invert= 614.50', Outlet Invert= 571.50'



Reach DH2: DH2



Summary for Reach PCA1: PCA1

Inflow Area = 3.010 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 22.38 cfs @ 12.07 hrs, Volume= 1.638 af
 Outflow = 19.43 cfs @ 12.11 hrs, Volume= 1.638 af, Atten= 13%, Lag= 2.6 min

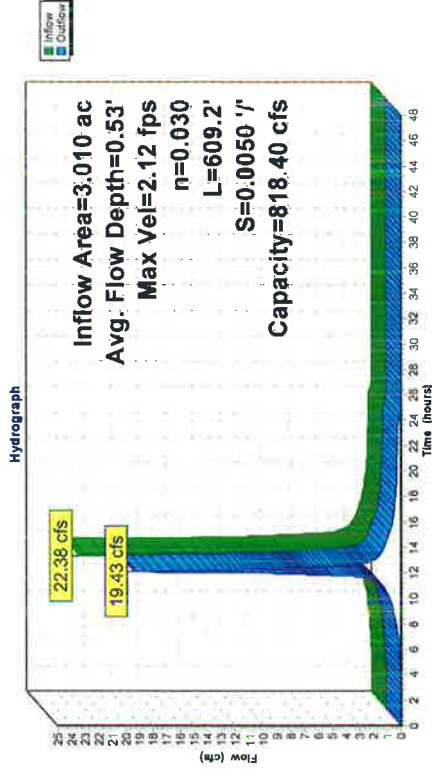
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.12 fps, Min. Travel Time= 4.8 min
 Avg. Velocity = 0.56 fps, Avg. Travel Time= 18.1 min

Peak Storage= 5573 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.53'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 818.40 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0' Top Width= 47.00'
 Length= 609.2' Slope= 0.0050'/'
 Inlet Invert= 575.60', Outlet Invert= 572.55'



Reach PCA1: PCA1



Summary for Reach PCA2: PCA2

Inflow Area = 10.554 ac, 0.00% impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 71.05 cfs @ 12.09 hrs, Volume= 5.743 af
 Outflow = 66.24 cfs @ 12.13 hrs, Volume= 5.743 af, Atten= 7%, Lags= 2.1 min

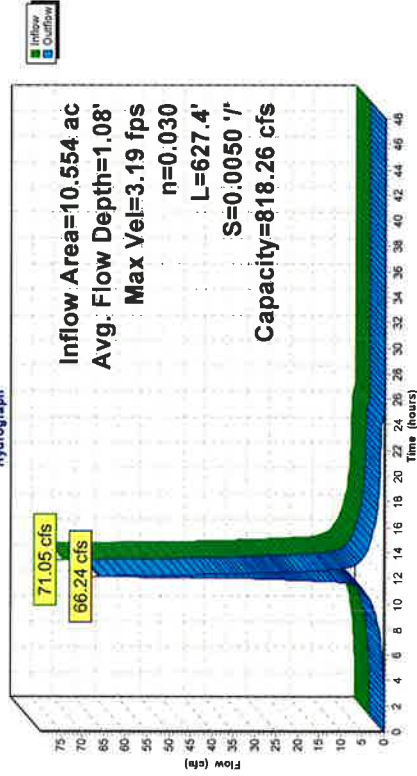
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.19 fps, Min. Travel Time= 3.3 min
 Avg. Velocity = 0.81 fps, Avg. Travel Time= 12.9 min

Peak Storage= 13,019 cf @ 12.13 hrs
 Average Depth at Peak Storage= 1.08'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 818.26 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0' Top Width= 47.00'
 Length= 627.4' Slope= 0.0050 '/
 Inlet Invert= 572.55', Outlet Invert= 569.41'



Reach PCA2: PCA2



Summary for Reach PCB1: PCB1

Inflow Area = 13.772 ac, 0.00% impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 85.80 cfs @ 12.11 hrs, Volume= 7.494 af
 Outflow = 81.81 cfs @ 12.14 hrs, Volume= 7.494 af, Atten= 5%, Lags= 2.0 min

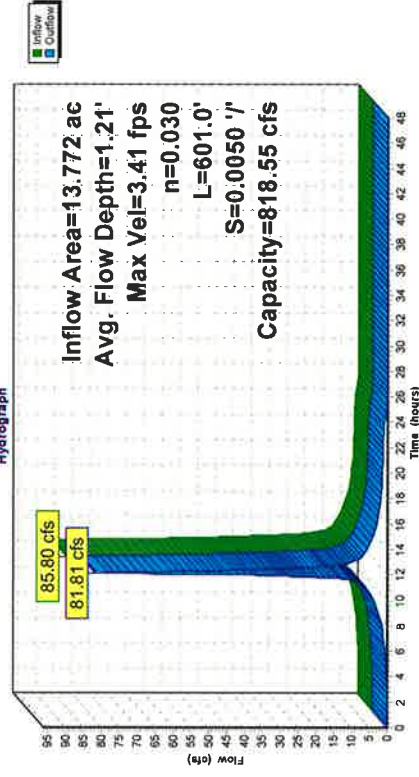
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.41 fps, Min. Travel Time= 2.9 min
 Avg. Velocity = 0.87 fps, Avg. Travel Time= 11.5 min

Peak Storage= 14,409 cf @ 12.14 hrs
 Average Depth at Peak Storage= 1.21'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 818.55 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0' Top Width= 47.00'
 Length= 601.0' Slope= 0.0050 '/
 Inlet Invert= 569.41', Outlet Invert= 566.40'



Reach PCB1: PCB1



Summary for Reach PCB2: PCB2

Inflow Area = 21.383 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 130.00 cfs @ 12.12 hrs, Volume= 11.635 af
 Outflow = 128.13 cfs @ 12.14 hrs, Volume= 11.635 af, Atten= 1%, Lag= 1.1 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.91 fps, Min. Travel Time= 1.5 min
 Avg. Velocity = 1.00 fps, Avg. Travel Time= 6.0 min

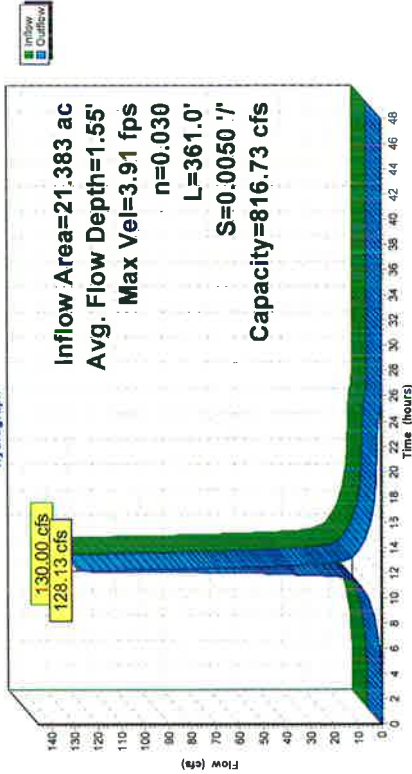
Peak Storage= 11.835 cf @ 12.14 hrs
 Average Depth at Peak Storage= 1.55'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 816.73 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0' Top Width= 47.00'
 Length= 361.0' Slope= 0.0050 '/'
 Inlet Invert= 564.40', Outlet Invert= 564.60'



Reach PCB2: PCB2

Hydrograph



Summary for Reach PCC1: PCC1

Inflow Area = 24.816 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 148.78 cfs @ 12.13 hrs, Volume= 13.504 af
 Outflow = 144.39 cfs @ 12.16 hrs, Volume= 13.504 af, Atten= 3%, Lag= 1.7 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.05 fps, Min. Travel Time= 2.3 min
 Avg. Velocity = 1.03 fps, Avg. Travel Time= 9.1 min

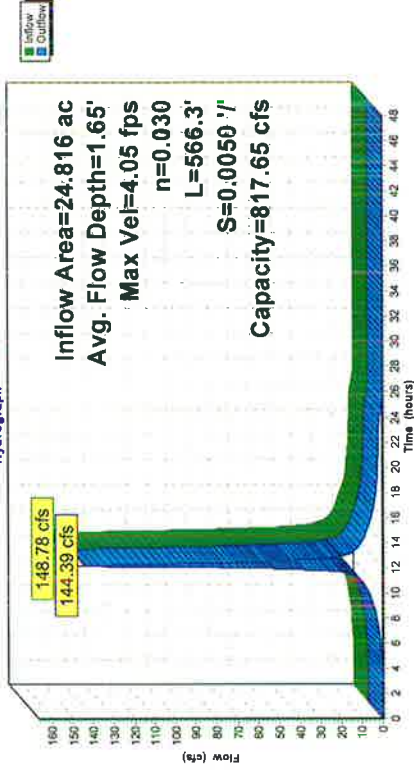
Peak Storage= 20.172 cf @ 12.16 hrs
 Average Depth at Peak Storage= 1.65'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 817.65 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0' Top Width= 47.00'
 Length= 565.3' Slope= 0.0050 '/'
 Inlet Invert= 564.60', Outlet Invert= 561.77'



Reach PCC1: PCC1

Hydrograph



Summary for Reach PCC2: PCC2

Inflow Area = 36,296 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 212.10 cfs @ 12.13 hrs, Volume= 19,750 af
 Outflow = 208.09 cfs @ 12.15 hrs, Volume= 19,750 af, Atten= 2%, Lag= 1.4 min

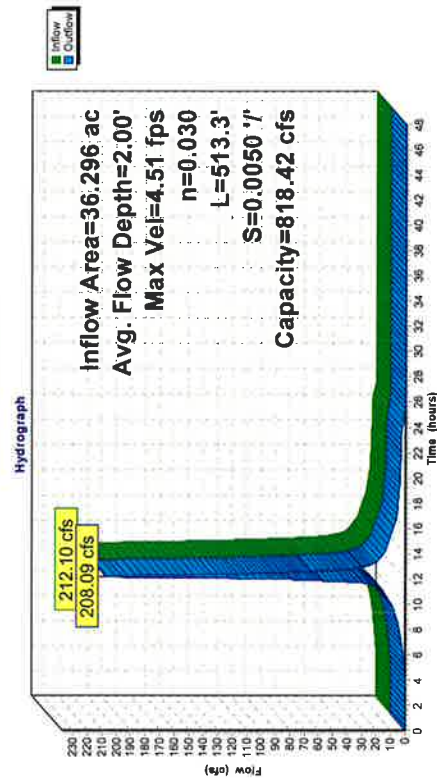
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.51 fps, Min. Travel Time= 1.9 min
 Avg. Velocity = 1.15 fps, Avg. Travel Time= 7.4 min

Peak Storage= 23,654 cf @ 12.15 hrs
 Average Depth at Peak Storage= 2.00'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 818.42 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0' Top Width= 47.00'
 Length= 513.3' Slope= 0.0050 '/
 Inlet Invert= 561.77', Outlet Invert= 559.20'



Reach PCC2: PCC2



Summary for Reach PCD1: PCD1

Inflow Area = 38,762 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 218.24 cfs @ 12.15 hrs, Volume= 21,092 af
 Outflow = 214.74 cfs @ 12.17 hrs, Volume= 21,092 af, Atten= 2%, Lag= 1.5 min

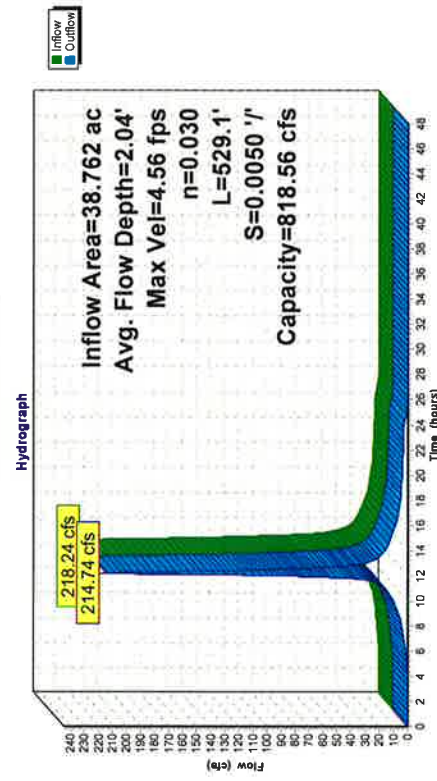
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.56 fps, Min. Travel Time= 1.9 min
 Avg. Velocity = 1.16 fps, Avg. Travel Time= 7.6 min

Peak Storage= 24,931 cf @ 12.17 hrs
 Average Depth at Peak Storage= 2.04'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 818.56 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0' Top Width= 47.00'
 Length= 529.1' Slope= 0.0050 '/
 Inlet Invert= 559.20', Outlet Invert= 556.55'



Reach PCD1: PCD1



Summary for Reach PCD2: PCD2

Inflow Area = 49,001 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 270.09 cfs @ 12.15 hrs, Volume= 26,664 af
 Outflow = 263.93 cfs @ 12.18 hrs, Volume= 26,664 af, Atten= 2%, Lags= 1.9 min

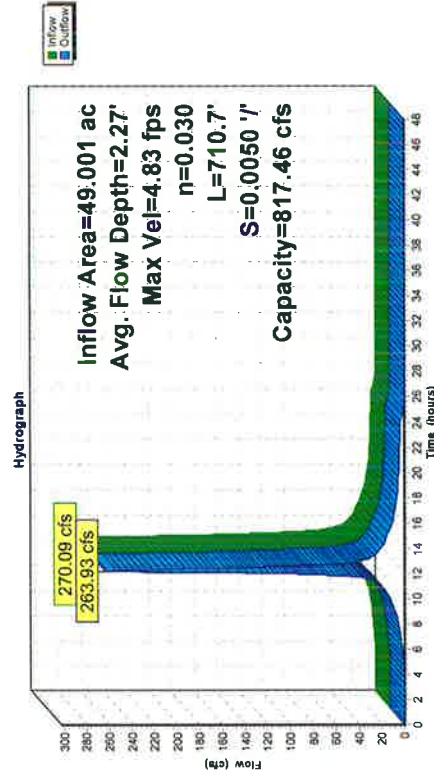
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.83 fps, Min. Travel Time= 2.5 min
 Avg. Velocity= 1.23 fps, Avg. Travel Time= 9.6 min

Peak Storage= 38,832 cf @ 12.18 hrs
 Average Depth at Peak Storage= 2.27'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 817.46 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0' Top Width= 47.00'
 Length= 710.7', Slope= 0.0050 '/'
 Inlet Invert= 556.55', Outlet Invert= 553.00'



Reach PCD2: PCD2



Summary for Reach PCE1: PCE1

Inflow Area = 2,657 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 19.62 cfs @ 12.07 hrs, Volume= 1,446 af
 Outflow = 17.10 cfs @ 12.11 hrs, Volume= 1,446 af, Atten= 13%, Lag= 2.5 min

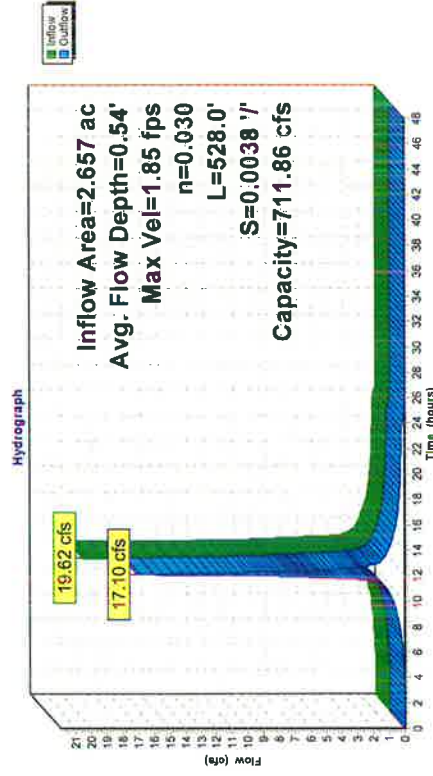
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 1.85 fps, Min. Travel Time= 4.7 min
 Avg. Velocity= 0.49 fps, Avg. Travel Time= 18.0 min

Peak Storage= 4,866 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.54'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 711.86 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0' Top Width= 47.00'
 Length= 528.0' Slope= 0.0038 '/'
 Inlet Invert= 555.00', Outlet Invert= 553.00'



Reach PCE1: PCE1



Summary for Reach PCE2: PCE2

Inflow Area = 1.925 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 12.45 cfs @ 12.13 hrs, Volume= 1.047 sf
 Outflow = 11.00 cfs @ 12.19 hrs, Volume= 1.047 sf, Atten= 12%, Lag= 3.2 min

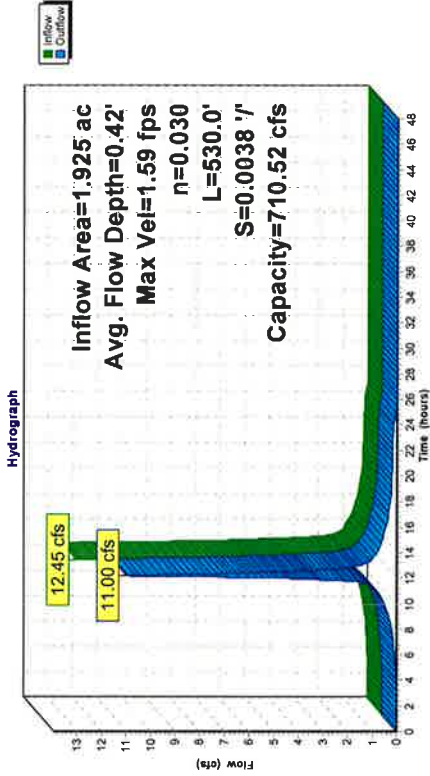
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 1.59 fps, Min. Travel Time= 5.6 min
 Avg. Velocity = 0.45 fps, Avg. Travel Time= 19.7 min

Peak Storage= 3.673 cf @ 12.19 hrs
 Average Depth at Peak Storage= 0.42'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 710.52 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 : 1 Top Width= 47.00'
 Length= 530.0' Slope= 0.0038 : 1
 Inlet Invert= 555.00', Outlet Invert= 553.00'



Reach PCE2: PCE2



Summary for Reach PCF1: PCF1

Inflow Area = 25.963 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 161.80 cfs @ 12.13 hrs, Volume= 14,128 af
 Outflow = 158.36 cfs @ 12.15 hrs, Volume= 14,128 af, Atten= 2%, Lag= 1.3 min

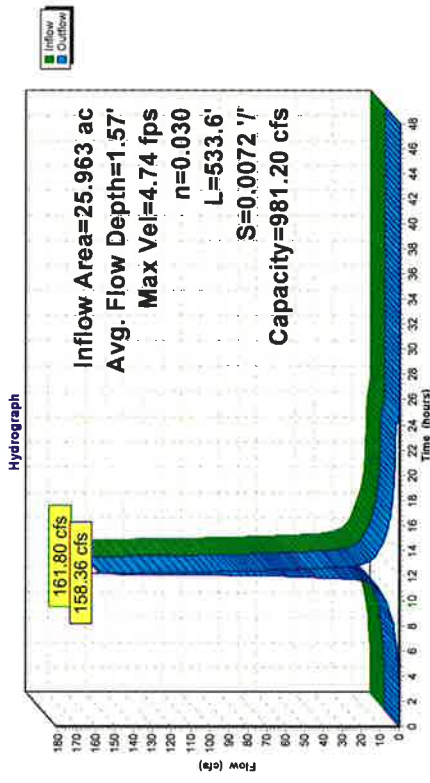
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.74 fps, Min. Travel Time= 1.9 min
 Avg. Velocity = 1.23 fps, Avg. Travel Time= 7.2 min

Peak Storage= 17,945 cf @ 12.15 hrs
 Average Depth at Peak Storage= 1.57'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 981.20 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 : 1 Top Width= 47.00'
 Length= 533.6' Slope= 0.0072 : 1
 Inlet Invert= 561.95', Outlet Invert= 558.11'



Reach PCF1: PCF1



Summary for Reach PCF2: PCF2

Inflow Area = 36.426 ac, 0.00% impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 220.97 cfs @ 12.13 hrs, Volume= 19,621 af
 Outflow = 214.92 cfs @ 12.16 hrs, Volume= 19,621 af, Atten= 3%, Lags= 1.6 min

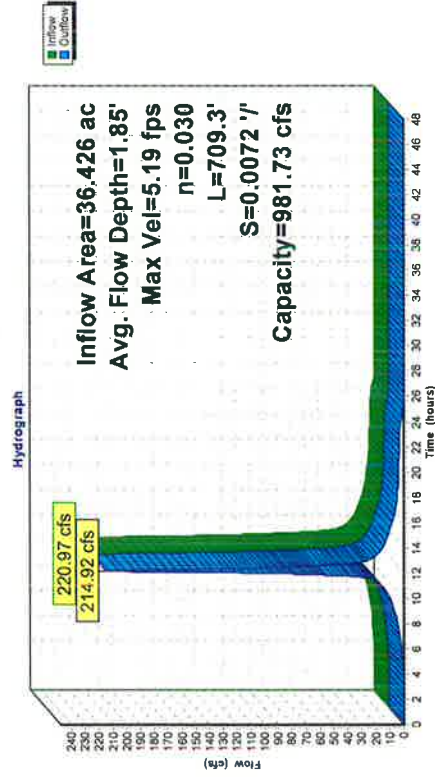
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.19 fps, Min. Travel Time= 2.3 min
 Avg. Velocity = 1.35 fps, Avg. Travel Time= 6.8 min

Peak Storage= 29,397 cf @ 12.16 hrs
 Average Depth at Peak Storage= 1.85'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 981.73 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 Top Width= 47.00'
 Length= 709.3' Slope= 0.0072 '/
 Inlet Invert= 558.11', Outlet Invert= 553.00'



Reach PCF2: PCF2



Summary for Reach PCG1: PCG1

Inflow Area = 13.631 ac, 0.00% impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 89.80 cfs @ 12.11 hrs, Volume= 7,417 af
 Outflow = 87.36 cfs @ 12.13 hrs, Volume= 7,417 af, Atten= 3%, Lags= 1.3 min

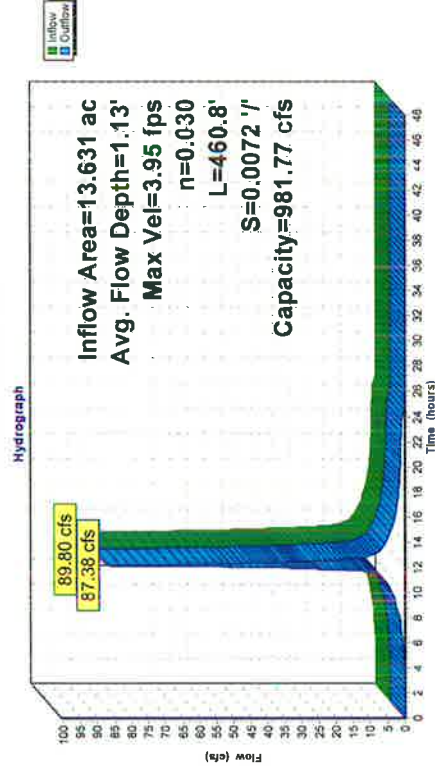
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.95 fps, Min. Travel Time= 1.9 min
 Avg. Velocity = 1.02 fps, Avg. Travel Time= 7.5 min

Peak Storage= 10,202 cf @ 12.13 hrs
 Average Depth at Peak Storage= 1.13'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 981.77 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 Top Width= 47.00'
 Length= 460.8' Slope= 0.0072 '/
 Inlet Invert= 568.63', Outlet Invert= 565.31'



Reach PCG1: PCG1



Summary for Reach PCG2: PCG2

Inflow Area = 23,878 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 155.72 cfs @ 12.11 hrs, Volume= 12,993 af
 Outflow = 152.54 cfs @ 12.13 hrs, Volume= 12,993 af, Atten= 2%, Lag= 1.2 min

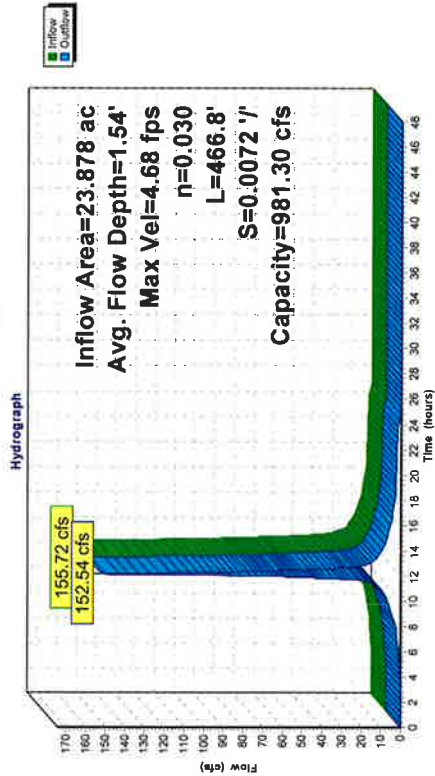
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.68 fps, Min. Travel Time= 1.7 min
 Avg. Velocity = 1.21 fps, Avg. Travel Time= 6.4 min

Peak Storage= 15,206 cf @ 12.13 hrs
 Average Depth at Peak Storage= 1.54'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 981.30 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0.7' Top Width= 47.00'
 Length= 466.8' Slope= 0.0072.7'
 Inlet Invert= 565.31', Outlet Invert= 561.95'



Reach PCG2: PCG2



Summary for Reach PCH1: PCH1

Inflow Area = 3,045 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 22.72 cfs @ 12.07 hrs, Volume= 1,657 af
 Outflow = 20.19 cfs @ 12.10 hrs, Volume= 1,657 af, Atten= 11%, Lag= 2.3 min

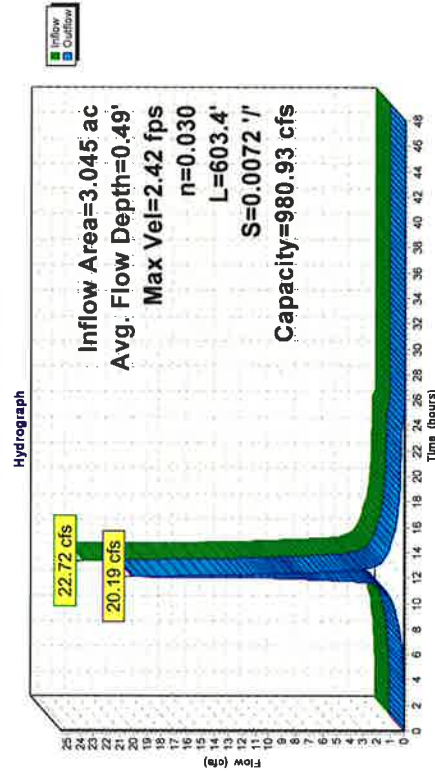
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.42 fps, Min. Travel Time= 4.2 min
 Avg. Velocity = 0.65 fps, Avg. Travel Time= 15.6 min

Peak Storage= 5,028 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.49'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 980.93 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0.7' Top Width= 47.00'
 Length= 603.4' Slope= 0.0072.7'
 Inlet Invert= 575.60', Outlet Invert= 571.26'



Reach PCH1: PCH1



Summary for Reach PCH2: PCH2

Inflow Area = 10.852 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 73.48 cfs @ 12.10 hrs, Volume= 5.905 af
 Outflow = 71.89 cfs @ 12.12 hrs, Volume= 5.905 af, Atten= 2%, Lag= 1.1 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.71 fps, Min. Travel Time= 1.6 min
 Avg. Velocity = 0.95 fps, Avg. Travel Time= 6.4 min

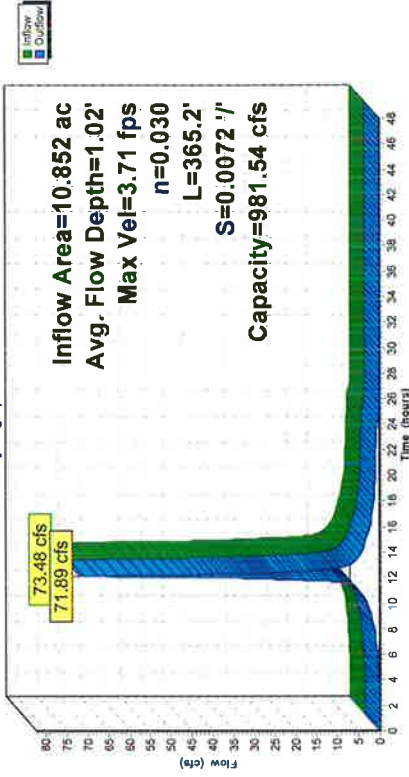
Peak Storage= 7.077 cf @ 12.12 hrs
 Average Depth at Peak Storage= 1.02'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 981.54 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 ' Top Width= 47.00'
 Length= 365.2' Slope= 0.0072 ' /'
 Inlet Invert= 571.26', Outlet Invert= 568.63'



Reach PCH2: PCH2

Hydrograph



Summary for Reach TBA1: TBA1

Inflow Area = 0.591 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 4.10 cfs @ 12.09 hrs, Volume= 0.322 af
 Outflow = 4.02 cfs @ 12.11 hrs, Volume= 0.322 af, Atten= 2%, Lag= 1.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.78 fps, Min. Travel Time= 1.3 min
 Avg. Velocity = 1.05 fps, Avg. Travel Time= 3.5 min

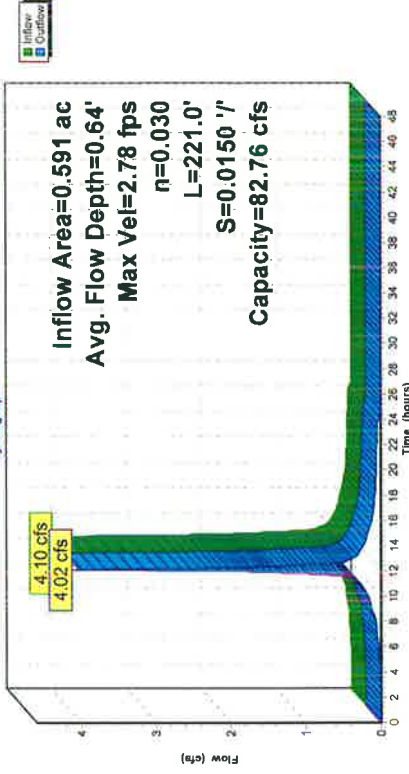
Peak Storage= 320 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.64'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.76 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 221.0' Slope= 0.0150 ' /'
 Inlet Invert= 670.00', Outlet Invert= 666.68'



Reach TBA1: TBA1

Hydrograph



Summary for Reach TBA2: TBA2

Inflow Area = 0.587 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 4.07 cfs @ 12.09 hrs, Volume= 0.319 af
 Outflow = 4.00 cfs @ 12.11 hrs, Volume= 0.319 af, Atten= 2%, Lag= 1.0 min

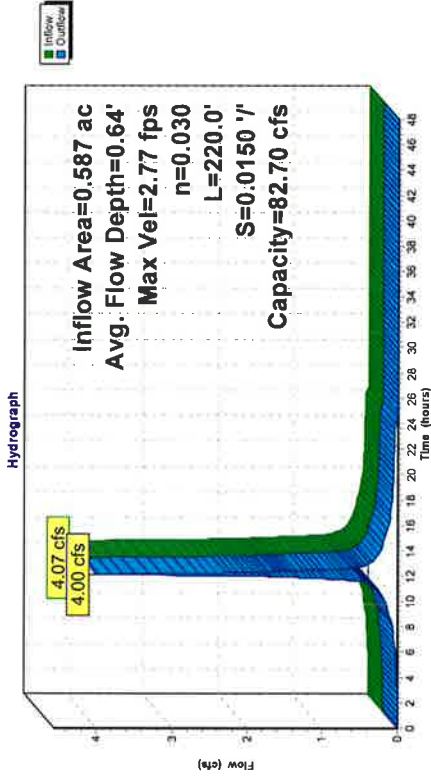
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.77 fps, Min. Travel Time= 1.3 min
 Avg. Velocity = 1.05 fps, Avg. Travel Time= 3.5 min

Peak Storage= 317 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.64'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 220.0' Slope= 0.0150 ' / '
 Inlet Invert= 670.00', Outlet Invert= 666.70'



Reach TBA2: TBA2



Summary for Reach TBA3: TBA3

Inflow Area = 1.595 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 11.61 cfs @ 12.08 hrs, Volume= 0.868 af
 Outflow = 11.10 cfs @ 12.10 hrs, Volume= 0.868 af, Atten= 4%, Lag= 1.4 min

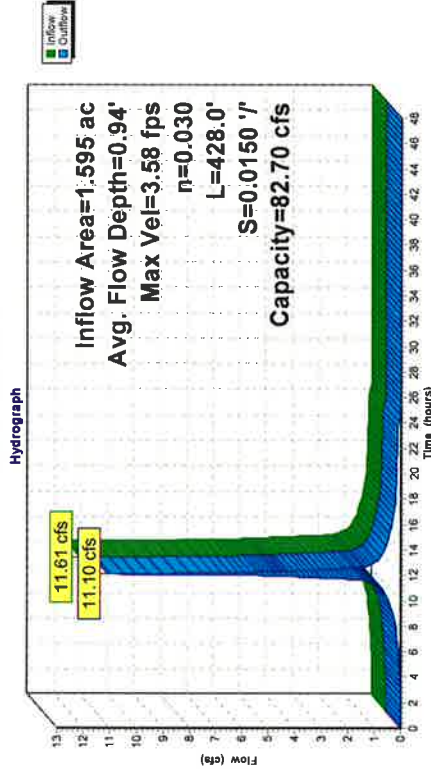
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.58 fps, Min. Travel Time= 2.0 min
 Avg. Velocity = 1.30 fps, Avg. Travel Time= 5.5 min

Peak Storage= 1,329 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.94'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 428.0' Slope= 0.0150 ' / '
 Inlet Invert= 620.00', Outlet Invert= 613.58'



Reach TBA3: TBA3



Summary for Reach TBA4: TBA4

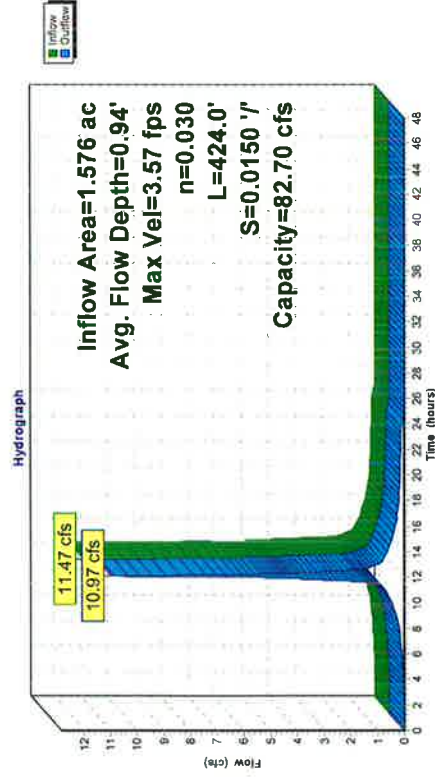
Inflow Area = 1.576 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 11.47 cfs @ 12.08 hrs, Volume= 0.858 af
 Outflow = 10.97 cfs @ 12.10 hrs, Volume= 0.858 af, Atten= 4%, Lag= 1.4 min
 Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.57 fps, Min. Travel Time= 2.0 min
 Avg. Velocity = 1.30 fps, Avg. Travel Time= 5.4 min

Peak Storage= 1.305 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.94'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 424.0' Slope= 0.0150 ' / '
 Inlet Invert= 620.00', Outlet Invert= 613.64'



Reach TBA4: TBA4



Summary for Reach TBB1: TBB1

Inflow Area = 0.513 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 3.62 cfs @ 12.09 hrs, Volume= 0.279 af
 Outflow = 3.55 cfs @ 12.10 hrs, Volume= 0.279 af, Atten= 2%, Lag= 1.0 min

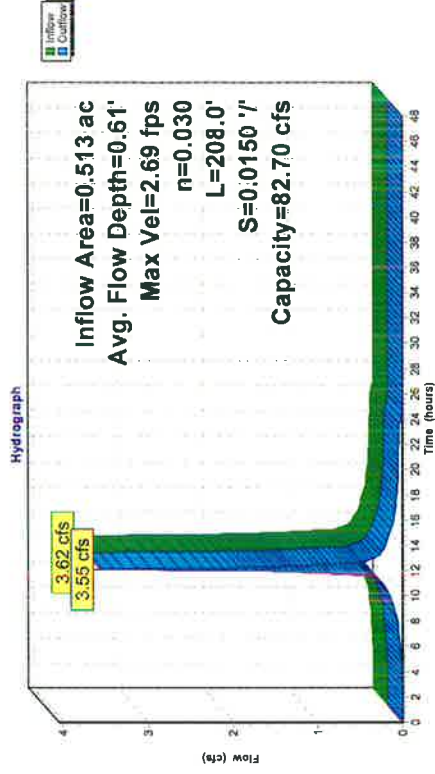
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.65 fps, Min. Travel Time= 1.3 min
 Avg. Velocity = 1.02 fps, Avg. Travel Time= 3.4 min

Peak Storage= 275 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.61'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 208.0' Slope= 0.0150 ' / '
 Inlet Invert= 670.00', Outlet Invert= 666.88'



Reach TBB1: TBB1



Summary for Reach TBB2: TBB2

Inflow Area = 1.762 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 12.06 cfs @ 12.10 hrs, Volume= 0.959 af
 Outflow = 11.73 cfs @ 12.12 hrs, Volume= 0.959 af, Atten= 3%, Lag= 1.3 min

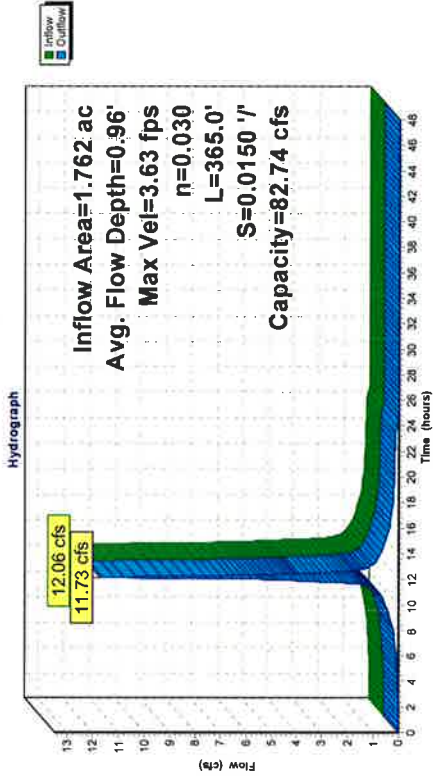
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.63 fps, Min. Travel Time= 1.7 min
 Avg. Velocity = 1.34 fps, Avg. Travel Time= 4.5 min

Peak Storage= 1,181 cf @ 12.12 hrs
 Average Depth at Peak Storage= 0.96'
 Bank-Full Depth= 2.00', Flow Area= 14.0 sf, Capacity= 82.74 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 365.0' Slope= 0.0150 ' / '
 Inlet Invert= 670.00', Outlet Invert= 664.52'



Reach TBB2: TBB2



Summary for Reach TBB3: TBB3

Inflow Area = 1.401 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 10.20 cfs @ 12.08 hrs, Volume= 0.762 af
 Outflow = 9.78 cfs @ 12.10 hrs, Volume= 0.762 af, Atten= 4%, Lag= 1.4 min

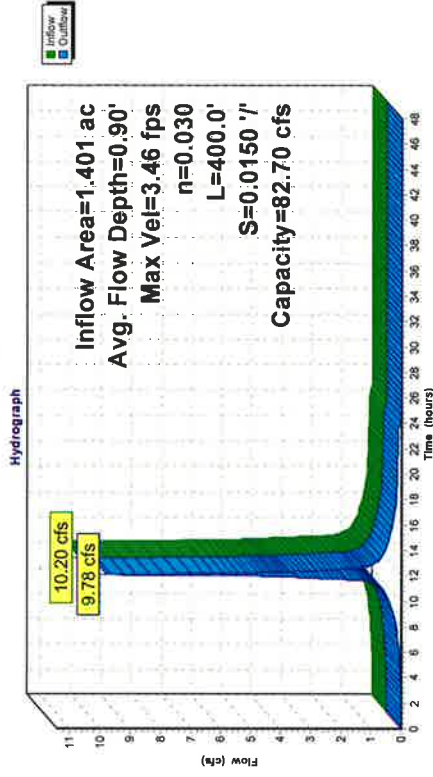
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.46 fps, Min. Travel Time= 1.9 min
 Avg. Velocity = 1.26 fps, Avg. Travel Time= 5.3 min

Peak Storage= 1,129 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.90'
 Bank-Full Depth= 2.00', Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 400.0' Slope= 0.0150 ' / '
 Inlet Invert= 620.00', Outlet Invert= 614.00'



Reach TBB3: TBB3



Summary for Reach TBB4: TBB4

Inflow Area = 1.674 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 12.36 cfs @ 12.07 hrs, Volume= 0.911 af
 Outflow = 11.93 cfs @ 12.09 hrs, Volume= 0.911 af, Atten= 3%, Lag= 1.2 min

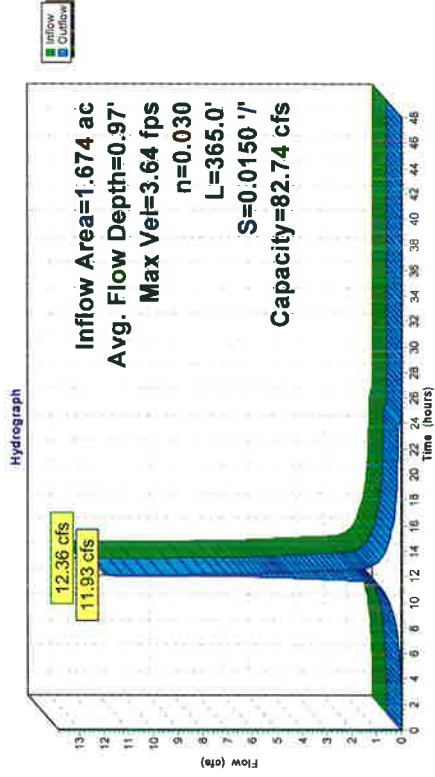
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.64 fps, Min. Travel Time= 1.7 min
 Avg. Velocity = 1.33 fps, Avg. Travel Time= 4.6 min

Peak Storage= 1,196 cf @ 12.09 hrs
 Average Depth at Peak Storage= 0.97'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.74 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 365.0' Slope= 0.0150 ' / '
 Inlet Invert= 620.00', Outlet Invert= 614.52'



Reach TBB4: TBB4



Summary for Reach TBC1: TBC1

Inflow Area = 1.698 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 11.93 cfs @ 12.09 hrs, Volume= 0.924 af
 Outflow = 11.50 cfs @ 12.11 hrs, Volume= 0.924 af, Atten= 4%, Lag= 1.4 min

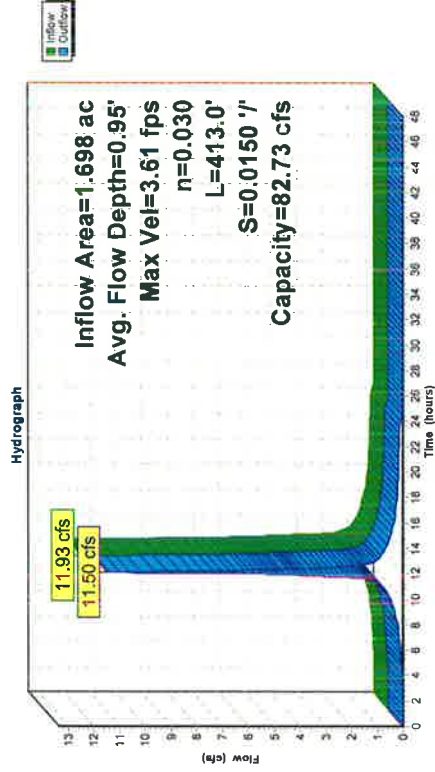
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.61 fps, Min. Travel Time= 1.9 min
 Avg. Velocity = 1.32 fps, Avg. Travel Time= 5.2 min

Peak Storage= 1,316 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.95'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.73 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 413.0' Slope= 0.0150 ' / '
 Inlet Invert= 670.00', Outlet Invert= 663.80'



Reach TBC1: TBC1



Summary for Reach TBC2: TBC2

Inflow Area = 1.053 ac, 0.00% impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 7.86 cfs @ 12.07 hrs, Volume= 0.573 af
 Outflow = 7.26 cfs @ 12.10 hrs, Volume= 0.573 af, Atten= 8%, Lag= 1.8 min

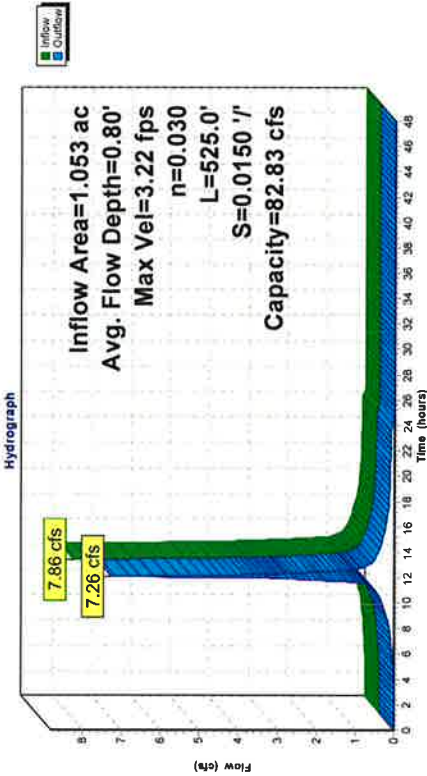
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.22 fps, Min. Travel Time= 2.7 min
 Avg. Velocity = 1.16 fps, Avg. Travel Time= 7.5 min

Peak Storage= 1,184 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.80'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.83 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 525.0' Slope= 0.0150 ' / '
 Inlet Invert= 680.00', Outlet Invert= 672.10'



Reach TBC2: TBC2



Summary for Reach TBC3: TBC3

Inflow Area = 2.026 ac, 0.00% impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 14.90 cfs @ 12.07 hrs, Volume= 1.102 af
 Outflow = 14.13 cfs @ 12.10 hrs, Volume= 1.102 af, Atten= 5%, Lag= 1.5 min

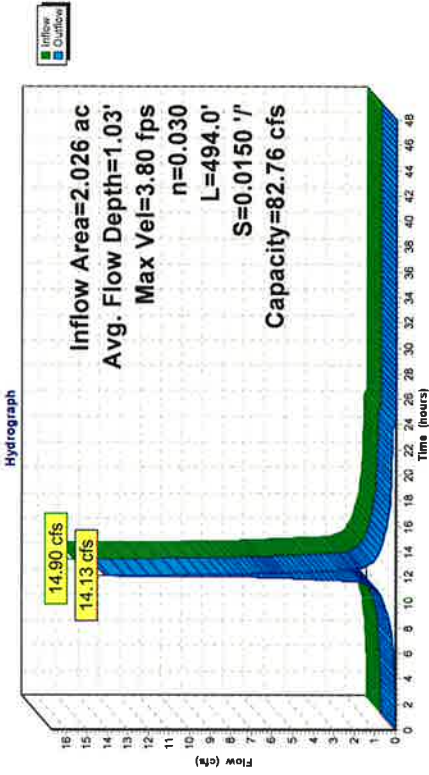
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.80 fps, Min. Travel Time= 2.2 min
 Avg. Velocity = 1.36 fps, Avg. Travel Time= 6.0 min

Peak Storage= 1,837 cf @ 12.10 hrs
 Average Depth at Peak Storage= 1.03'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.76 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 494.0' Slope= 0.0150 ' / '
 Inlet Invert= 620.00', Outlet Invert= 612.58'



Reach TBC3: TBC3



Summary for Reach TBC4: TBC4

Inflow Area = 2.027 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 15.35 cfs @ 12.06 hrs, Volume= 1.103 af
 Outflow = 14.20 cfs @ 12.09 hrs, Volume= 1.103 af, Atten= 7%, Lag= 1.8 min

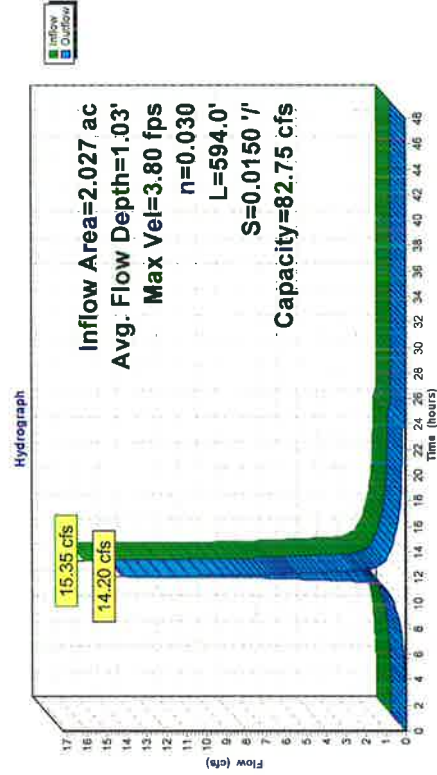
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.60 fps, Min. Travel Time= 2.6 min
 Avg. Velocity = 1.34 fps, Avg. Travel Time= 7.4 min

Peak Storage= 2.218 cf @ 12.09 hrs
 Average Depth at Peak Storage= 1.03'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.75 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 594.0' Slope= 0.0150 ' / '
 Inlet Invert= 644.00', Outlet Invert= 635.08'



Reach TBC4: TBC4



Summary for Reach TBC6: TBC6

Inflow Area = 1.897 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 14.52 cfs @ 12.06 hrs, Volume= 1.032 af
 Outflow = 13.46 cfs @ 12.09 hrs, Volume= 1.032 af, Atten= 7%, Lag= 1.7 min

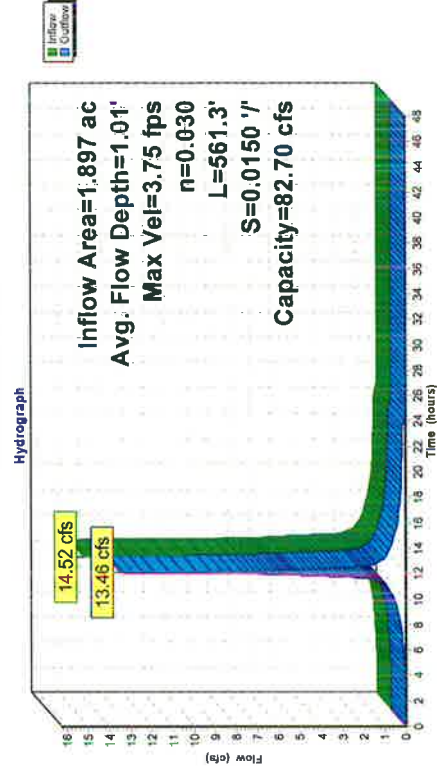
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.75 fps, Min. Travel Time= 2.5 min
 Avg. Velocity = 1.33 fps, Avg. Travel Time= 7.0 min

Peak Storage= 2.014 cf @ 12.09 hrs
 Average Depth at Peak Storage= 1.01'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 561.3' Slope= 0.0150 ' / '
 Inlet Invert= 606.00', Outlet Invert= 597.58'



Reach TBC6: TBC6



Summary for Reach TBD1: TBD1

Inflow Area = 2.445 ac, 0.00% impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 16.67 cfs @ 12.10 hrs, Volume= 1,330 af
 Outflow = 15.89 cfs @ 12.13 hrs, Volume= 1,330 af, Atten= 5%, Lag= 1.7 min

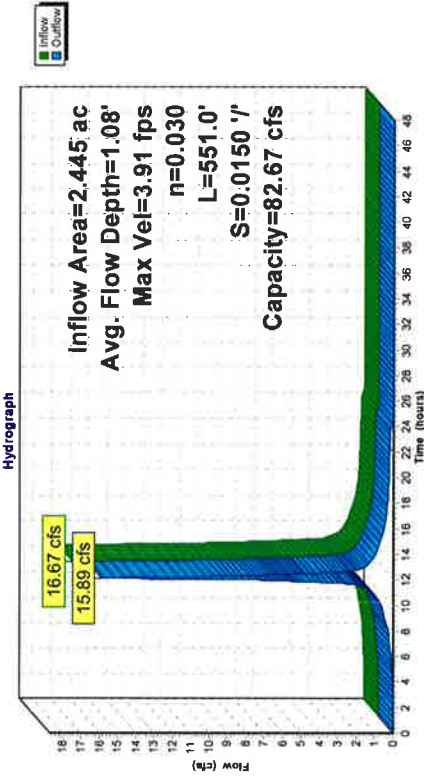
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.91 fps, Min. Travel Time= 2.3 min
 Avg. Velocity = 1.41 fps, Avg. Travel Time= 6.5 min

Peak Storage= 2,240 cf @ 12.13 hrs
 Average Depth at Peak Storage= 1.08'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.67 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 551.0' Slope= 0.0150 ' / '
 Inlet Invert= 630.00', Outlet Invert= 621.74'



Reach TBD1: TBD1



Summary for Reach TBD2: TBD2

Inflow Area = 2.373 ac, 0.00% impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 15.97 cfs @ 12.11 hrs, Volume= 1,291 af
 Outflow = 15.35 cfs @ 12.13 hrs, Volume= 1,291 af, Atten= 4%, Lag= 1.5 min

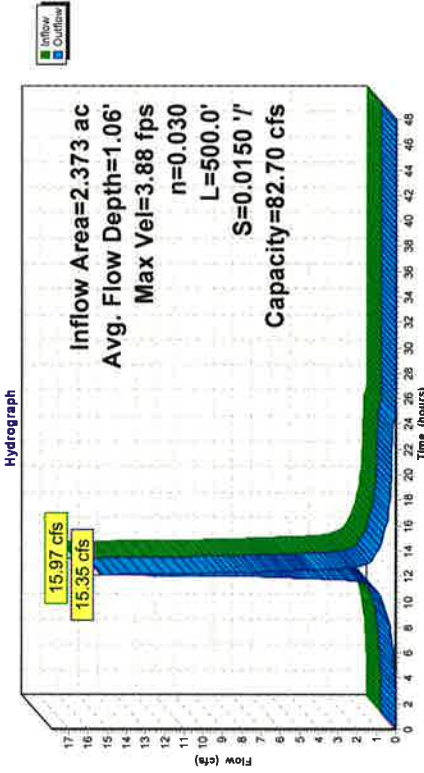
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.88 fps, Min. Travel Time= 2.1 min
 Avg. Velocity = 1.41 fps, Avg. Travel Time= 5.9 min

Peak Storage= 1,979 cf @ 12.13 hrs
 Average Depth at Peak Storage= 1.06'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 500.0' Slope= 0.0150 ' / '
 Inlet Invert= 606.00', Outlet Invert= 598.50'



Reach TBD2: TBD2



Summary for Reach TBD3: TBD3

Inflow Area = 1.705 ac, 0.00% impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 13.15 cfs @ 12.05 hrs, Volume= 0.928 sf
 Outflow = 12.29 cfs @ 12.08 hrs, Atten= 7%, Lag= 1.6 min

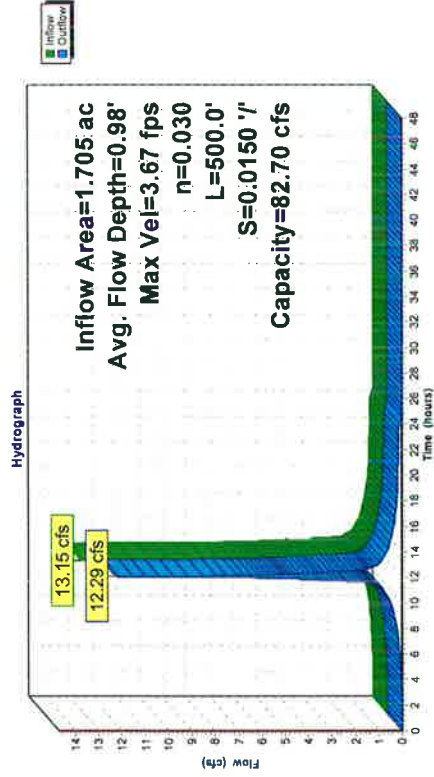
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.67 fps, Min. Travel Time= 2.3 min
 Avg. Velocity = 1.31 fps, Avg. Travel Time= 6.4 min

Peak Storage= 1.675 cf @ 12.08 hrs
 Average Depth at Peak Storage= 0.98'
 Bank-Full Depth= 2.00', Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 500.0' Slope= 0.0150 ' / '
 Inlet Invert= 596.00', Outlet Invert= 588.50'



Reach TBD3: TBD3



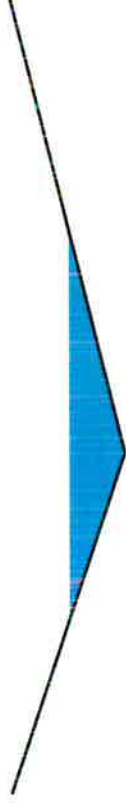
Summary for Reach TBE1: TBE1

Inflow Area = 1.925 ac, 0.00% impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 13.30 cfs @ 12.10 hrs, Volume= 1.047 sf
 Outflow = 12.47 cfs @ 12.13 hrs, Volume= 1.047 sf

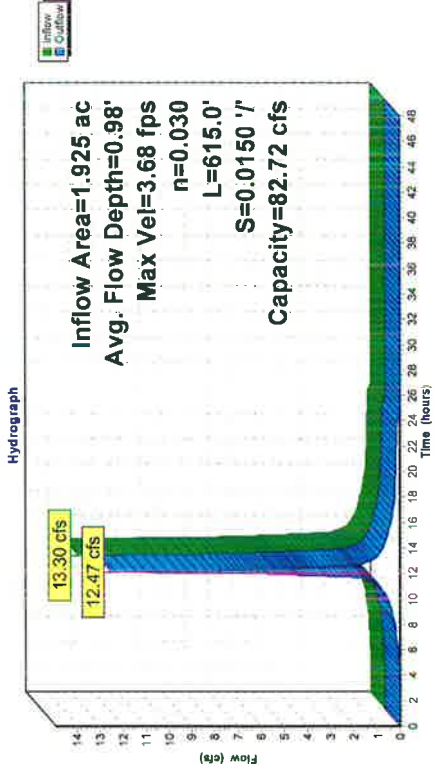
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.68 fps, Min. Travel Time= 2.6 min
 Avg. Velocity = 1.32 fps, Avg. Travel Time= 7.7 min

Peak Storage= 2.083 cf @ 12.13 hrs
 Average Depth at Peak Storage= 0.98'
 Bank-Full Depth= 2.00', Flow Area= 14.0 sf, Capacity= 82.72 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 615.0' Slope= 0.0150 ' / '
 Inlet Invert= 606.00', Outlet Invert= 596.77'



Reach TBE1: TBE1



Summary for Reach TBF1: TBF1

Inflow Area = 2.202 ac, 0.00% impervious, inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 15.07 cfs @ 12.10 hrs, Volume= 1,198 af
 Outflow = 14.45 cfs @ 12.12 hrs, Volume= 1,198 af, Atten= 4%, Lag= 1.6 min

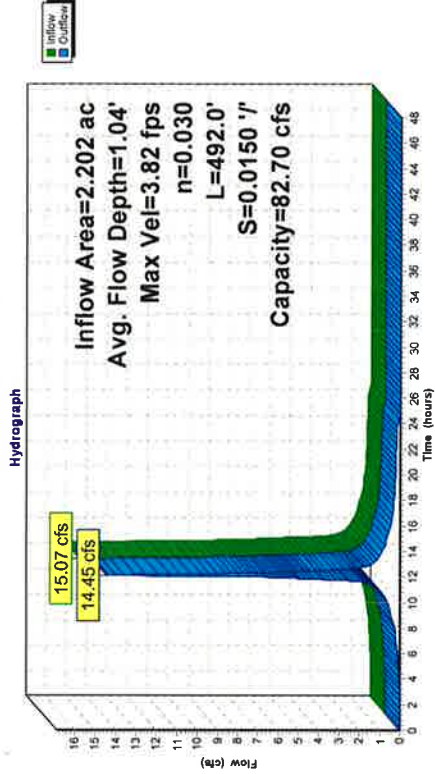
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.82 fps, Min. Travel Time= 2.1 min
 Avg. Velocity = 1.39 fps, Avg. Travel Time= 5.9 min

Peak Storage= 1,862 cf @ 12.12 hrs
 Average Depth at Peak Storage= 1.04'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0' Top Width= 14.00'
 Length= 492.0' Slope= 0.0150 1/
 Inlet Invert= 610.00', Outlet Invert= 602.62'



Reach TBF1: TBF1



Summary for Reach TBF2: TBF2

Inflow Area = 2.386 ac, 0.00% impervious, inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 15.75 cfs @ 12.11 hrs, Volume= 1,298 af
 Outflow = 15.10 cfs @ 12.14 hrs, Volume= 1,298 af, Atten= 4%, Lag= 1.7 min

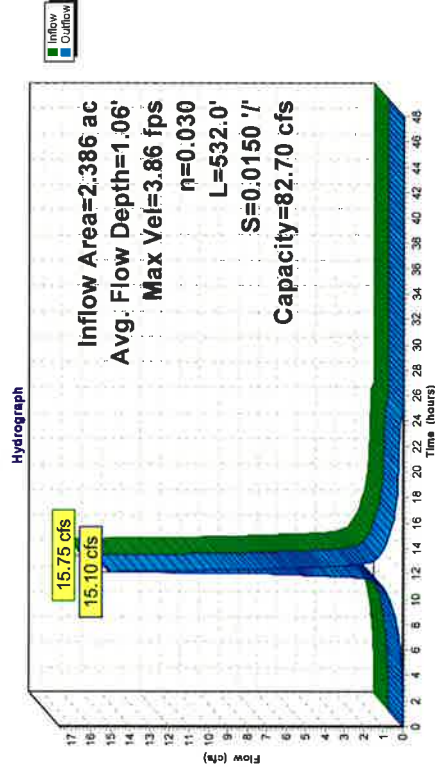
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.86 fps, Min. Travel Time= 2.3 min
 Avg. Velocity = 1.41 fps, Avg. Travel Time= 6.3 min

Peak Storage= 2,080 cf @ 12.14 hrs
 Average Depth at Peak Storage= 1.06'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0' Top Width= 14.00'
 Length= 532.0' Slope= 0.0150 1/
 Inlet Invert= 630.00', Outlet Invert= 622.02'



Reach TBF2: TBF2



Summary for Reach TBF3: TBF3

Inflow Area = 1.950 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 14.76 cfs @ 12.06 hrs, Volume= 1.061 af
 Outflow = 13.81 cfs @ 12.09 hrs, Volume= 1.061 af, Atten= 6%, Lag= 1.6 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.78 fps, Min. Travel Time= 2.3 min
 Avg. Velocity = 1.34 fps, Avg. Travel Time= 6.6 min

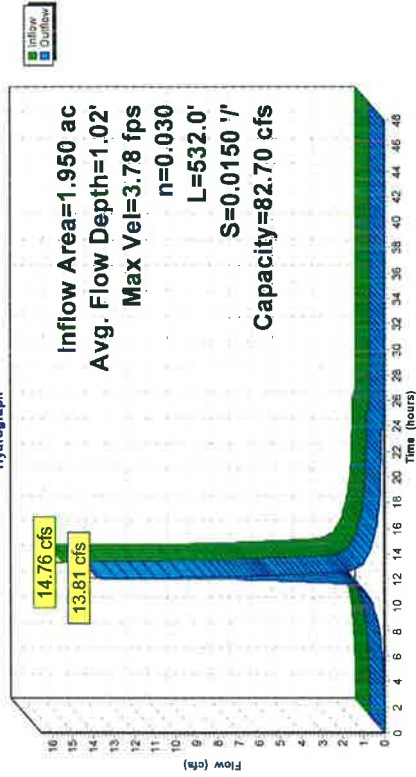
Peak Storage= 1.946 cf @ 12.09 hrs
 Average Depth at Peak Storage= 1.02'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-values= 3.0 4.0 ' Top Width= 14.00'
 Length= 532.0' Slope= 0.0150 ' / '
 Inlet Invert= 590.00', Outlet Invert= 582.02'



Reach TBF3: TBF3

Hydrograph



Summary for Reach TBG1: TBG1

Inflow Area = 1.044 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 7.65 cfs @ 12.07 hrs, Volume= 0.568 af
 Outflow = 7.27 cfs @ 12.10 hrs, Volume= 0.568 af, Atten= 5%, Lag= 1.5 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.22 fps, Min. Travel Time= 2.1 min
 Avg. Velocity = 1.18 fps, Avg. Travel Time= 5.9 min

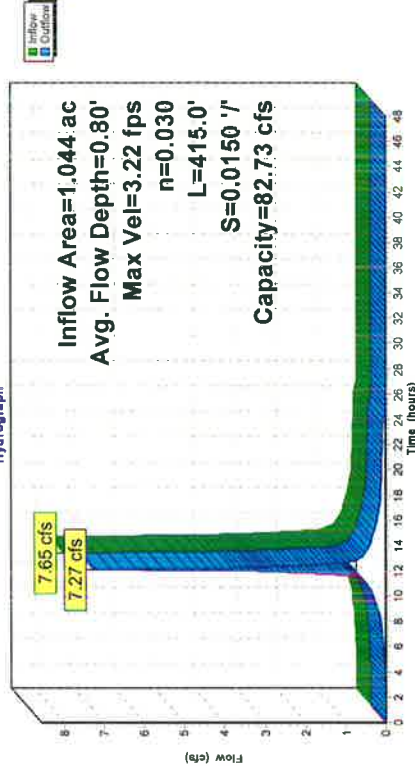
Peak Storage= 937 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.80'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.73 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-values= 3.0 4.0 ' Top Width= 14.00'
 Length= 415.0' Slope= 0.0150 ' / '
 Inlet Invert= 666.00', Outlet Invert= 659.77'



Reach TBG1: TBG1

Hydrograph



Summary for Reach TBG2: TBG2

Inflow Area = 2.232 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 15.69 cfs @ 12.09 hrs, Volume= 1,215 af
 Outflow = 15.10 cfs @ 12.11 hrs, Volume= 1,215 af, Atten= 4%, Lag= 1.4 min

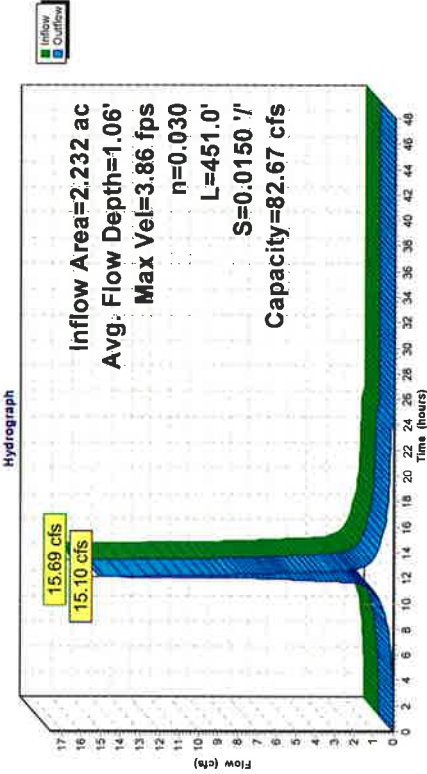
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.86 fps, Min. Travel Time= 1.9 min
 Avg. Velocity = 1.40 fps, Avg. Travel Time= 5.4 min

Peak Storage= 1,764 cf @ 12.11 hrs
 Average Depth at Peak Storage= 1.06'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.67 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0' Top Width= 14.00'
 Length= 451.0' Slope= 0.0150 1'
 Inlet Invert= 668.00', Outlet Invert= 661.24'



Reach TBG2: TBG2



Summary for Reach TBG3: TBG3

Inflow Area = 1.985 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 14.76 cfs @ 12.07 hrs, Volume= 1,080 af
 Outflow = 14.02 cfs @ 12.09 hrs, Volume= 1,080 af, Atten= 5%, Lag= 1.5 min

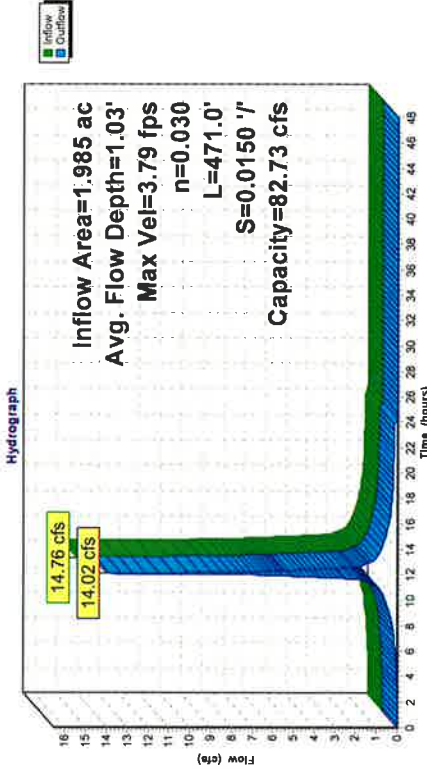
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.79 fps, Min. Travel Time= 2.1 min
 Avg. Velocity = 1.36 fps, Avg. Travel Time= 5.8 min

Peak Storage= 1,742 cf @ 12.09 hrs
 Average Depth at Peak Storage= 1.03'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.73 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0' Top Width= 14.00'
 Length= 471.0' Slope= 0.0150 1'
 Inlet Invert= 620.00', Outlet Invert= 612.93'



Reach TBG3: TBG3



Summary for Reach TBG4: TBG4

Inflow Area = 2.003 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 14.79 cfs @ 12.07 hrs, Volume= 1,090 af
 Outflow = 14.10 cfs @ 12.09 hrs, Volume= 1,090 af, Atten= 5%, Lag= 1.4 min

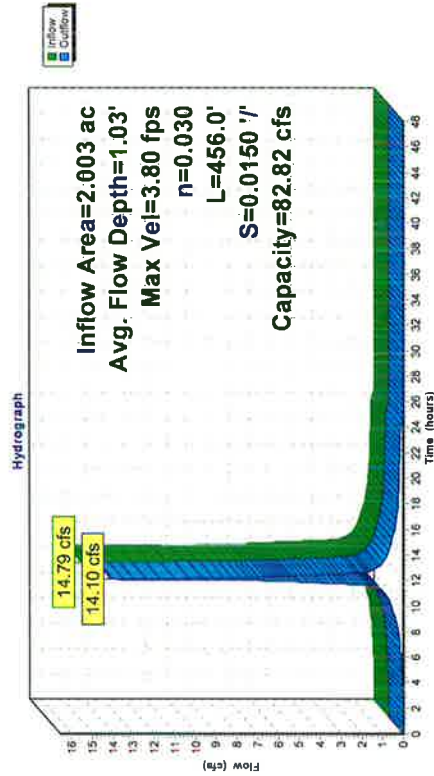
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.80 fps, Min. Travel Time= 2.0 min
 Avg. Velocity = 1.37 fps, Avg. Travel Time= 5.6 min

Peak Storage= 1,692 cf @ 12.09 hrs
 Average Depth at Peak Storage= 1.03'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.82 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 456.0' Slope= 0.0150 ' / '
 Inlet Invert= 620.00', Outlet Invert= 613.14'



Reach TBG4: TBG4



Summary for Reach TBH1: TBH1

Inflow Area = 1.854 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 12.90 cfs @ 12.09 hrs, Volume= 1,009 af
 Outflow = 12.55 cfs @ 12.11 hrs, Volume= 1,009 af, Atten= 3%, Leg= 1.2 min

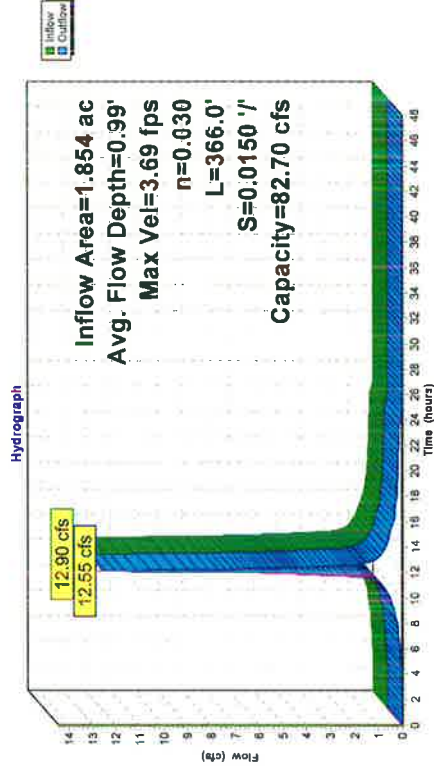
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.69 fps, Min. Travel Time= 1.7 min
 Avg. Velocity = 1.36 fps, Avg. Travel Time= 4.5 min

Peak Storage= 1,245 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.99'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 366.0' Slope= 0.0150 ' / '
 Inlet Invert= 670.00', Outlet Invert= 664.51'



Reach TBH1: TBH1



Summary for Reach TBH2: TBH2

Inflow Area = 0.571 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 4.01 cfs @ 12.09 hrs, Volume= 0.311 af
 Outflow = 3.94 cfs @ 12.11 hrs, Volume= 0.311 af, Atten= 2%, Lag= 1.0 min

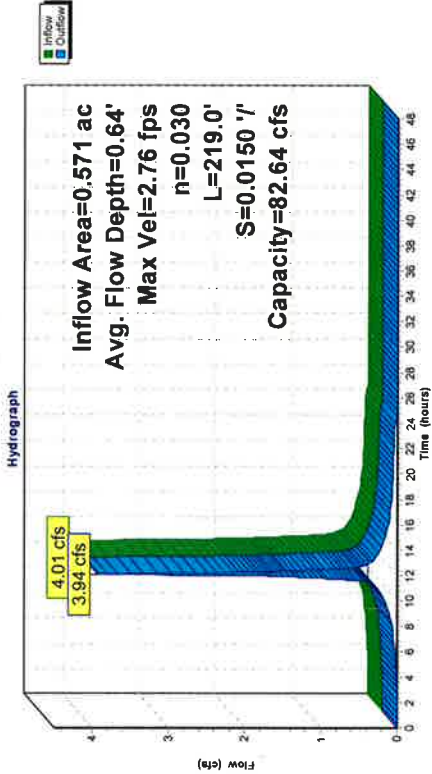
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.76 fps, Min. Travel Time= 1.3 min
 Avg. Velocity = 1.04 fps, Avg. Travel Time= 3.5 min

Peak Storage= 313 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.64'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.64 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 219.0' Slope= 0.0150 ' / '
 Inlet Invert= 670.00', Outlet Invert= 666.72'



Reach TBH2: TBH2



Summary for Reach TBH3: TBH3

Inflow Area = 1.675 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 12.28 cfs @ 12.07 hrs, Volume= 0.911 af
 Outflow = 11.86 cfs @ 12.09 hrs, Volume= 0.911 af, Atten= 3%, Lag= 1.2 min

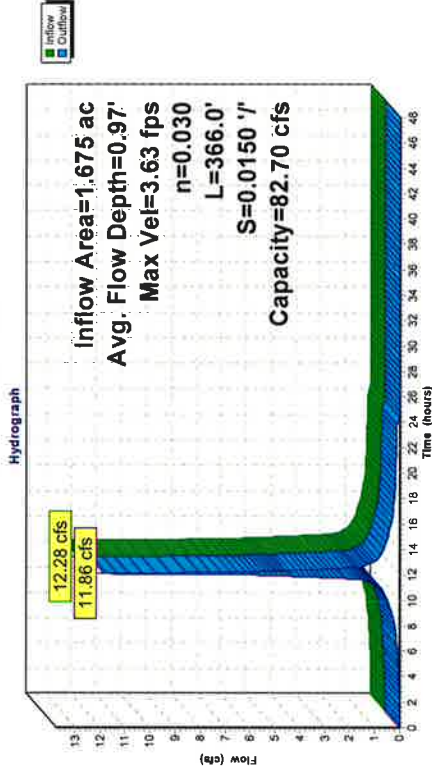
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.63 fps, Min. Travel Time= 1.7 min
 Avg. Velocity = 1.33 fps, Avg. Travel Time= 4.6 min

Peak Storage= 1,194 cf @ 12.09 hrs
 Average Depth at Peak Storage= 14.0'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 366.0' Slope= 0.0150 ' / '
 Inlet Invert= 620.00', Outlet Invert= 614.51'



Reach TBH3: TBH3



Summary for Reach TBH4: TBH4

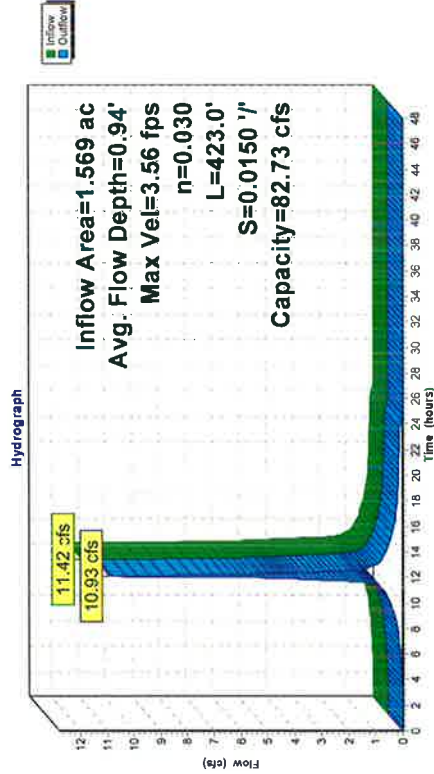
Inflow Area = 1.569 ac, 0.00% Impervious, Inflow Depth = 6.53" for 25-Year, 24-Hour event
 Inflow = 11.42 cfs @ 12.08 hrs, Volume= 0.854 af
 Outflow = 10.93 cfs @ 12.10 hrs, Volume= 0.854 af, Atten= 4%, Lag= 1.4 min
 Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.56 fps, Min. Travel Time= 2.0 min
 Avg. Velocity = 1.30 fps, Avg. Travel Time= 5.4 min

Peak Storage= 1.297 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.94'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.73 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 423.0' Slope= 0.0150 ' / '
 Inlet Invert= 620.00', Outlet Invert= 613.65'



Reach TBH4: TBH4



Summary for Pond NDB: Northeast Detention Basin

Inflow Area = 106.291 ac, 12.82% Impervious, Inflow Depth = 6.64" for 25-Year, 24-Hour event
 Inflow = 566.35 cfs @ 12.17 hrs, Volume= 56.781 af
 Outflow = 167.93 cfs @ 12.61 hrs, Volume= 56.576 af, Atten= 70%, Lag= 26.4 min
 Primary = 167.93 cfs @ 12.61 hrs, Volume= 56.576 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 551.30' @ 12.61 hrs Surf. Area= 486,564 sf Storage= 1,078,094 cf

Plug-Flow detention time= 166.0 min calculated for 56.576 af (100% of inflow)
 Center-of-Mass det. time= 163.4 min (948.3 - 784.9)

Volume Invert Avall Storage Storage Description
 #1 549.00' 3,539,859 cf Custom Stage Data (Prismatic) Listed below (Recalc)

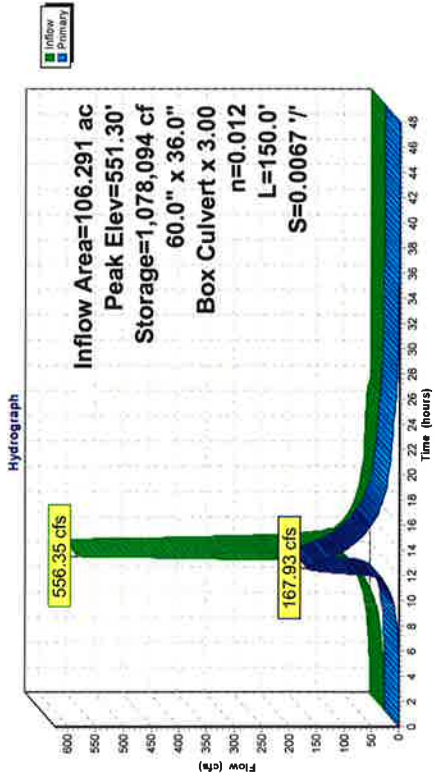
Elevation (feet)	Surf Area (sq-ft)	Inc. Store (cubic-feet)	Cum. Store (cubic-feet)
549.00	451,169	0	0
550.00	466,412	456,791	456,791
552.00	497,421	963,833	1,422,624
554.00	528,133	1,026,554	2,449,178
556.00	561,548	1,090,681	3,539,859

Device Routing Invert Outlet Devices

#1 Primary 549.00' 60.0" W x 36.0" H Box Culvert X 3.00
 L= 150.0' Box, headwall w/3 square edges, Ke= 0.500
 Inlet / Outlet Invert= 549.00' / 548.00' S= 0.0067 ' / '
 n= 0.012 Concrete pipe, finished, Flow Area= 15.00 sf

Primary OutFlow Max=167.92 cfs @ 12.61 hrs HW=551.30' (Free Discharge)
 #1=Culvert (Inlet Controls 167.92 cfs @ 4.87 fps)

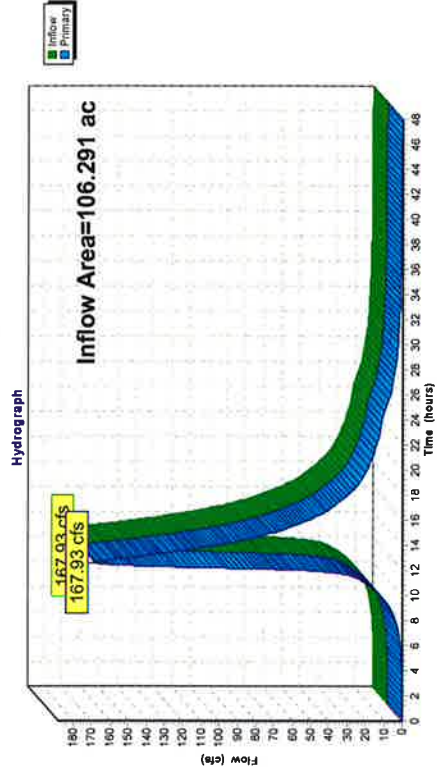
Pond NDB: Northeast Detention Basin



Summary for Link P-OFF-LF-3: P-OFF-LF-3

Inflow Area = 106.291 ac, 12.82% Impervious, Inflow Depth > 6.61" for 25-Year, 24-Hour event
 Inflow = 167.93 cfs @ 12.61 hrs, Volume= 58.576 af
 Primary = 167.93 cfs @ 12.61 hrs, Volume= 58.576 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link P-OFF-LF-3: P-OFF-LF-3




ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

- 2. **POST-DEVELOPMENT CONDITIONS**
 - A. **NORTH AREA**
 - II. **PROPOSED LANDFILL DEVELOPMENT MODEL**
 - 1. **MODEL DIAGRAM**
 - 2. **25-YEAR, 24-HOUR RESULTS**
 - 3. **100-YEAR, 24-HOUR RESULTS**

8-15-2017



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Summary for Subcatchment A1: A1

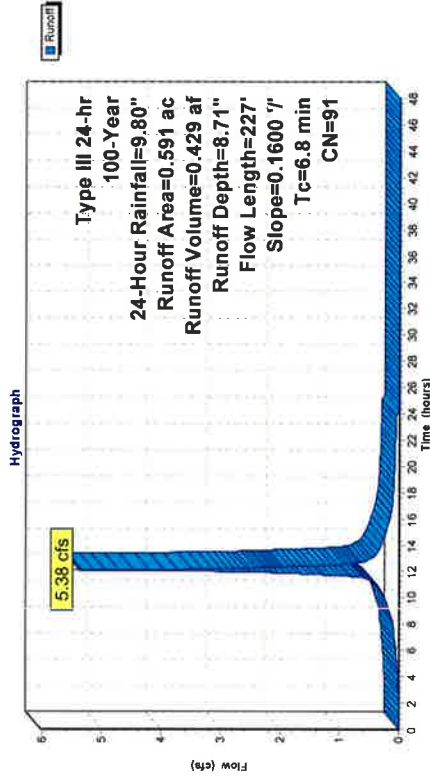
Runoff = 5.38 cfs @ 12.09 hrs, Volume= 0.429 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
0.591	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	227	0.1600	0.56		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment A1: A1



Summary for Subcatchment A2: A2

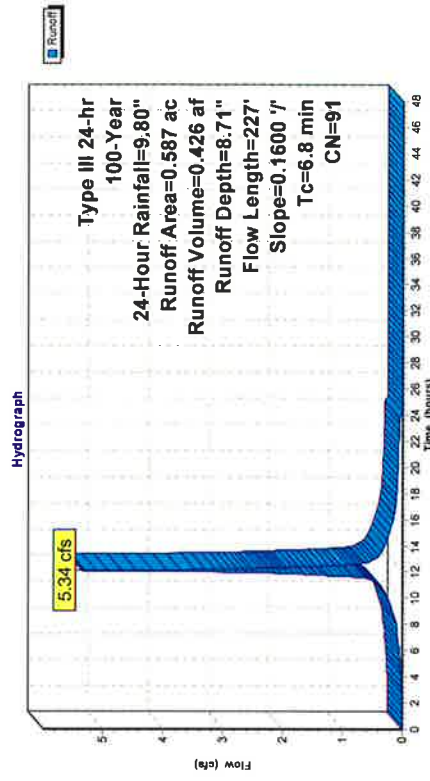
Runoff = 5.34 cfs @ 12.09 hrs, Volume= 0.426 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
0.587	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	227	0.1600	0.56		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment A2: A2



Summary for Subcatchment A3: A3

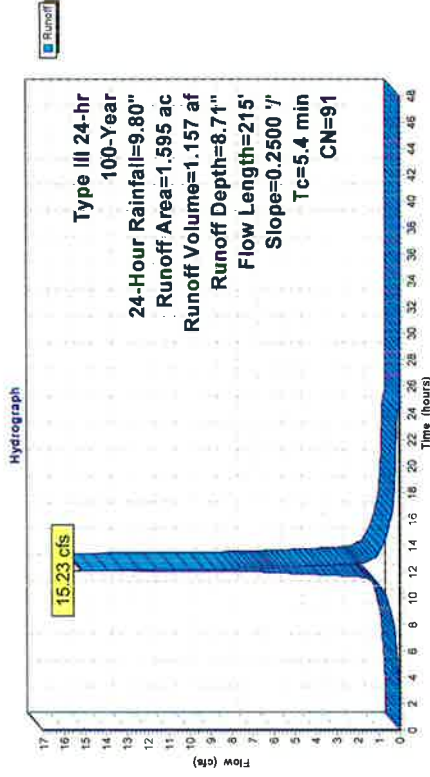
Runoff = 15.23 cfs @ 12.08 hrs, Volume= 1,157 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
1.595	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	215	0.2500	0.66		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment A3: A3



Summary for Subcatchment A4: A4

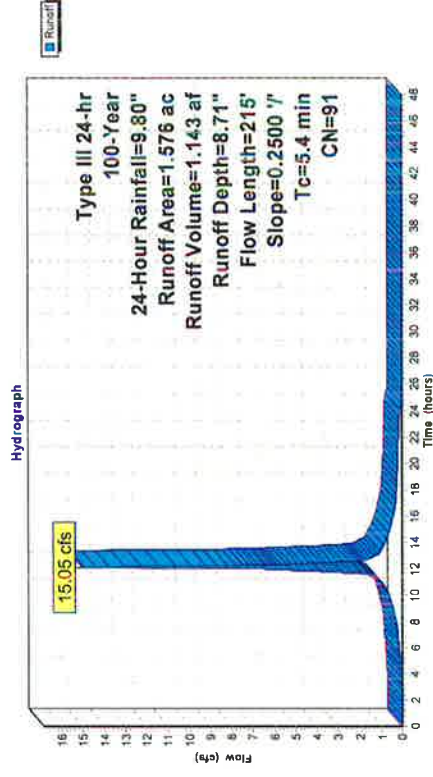
Runoff = 15.05 cfs @ 12.08 hrs, Volume= 1,143 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
1.576	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	215	0.2500	0.66		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment A4: A4



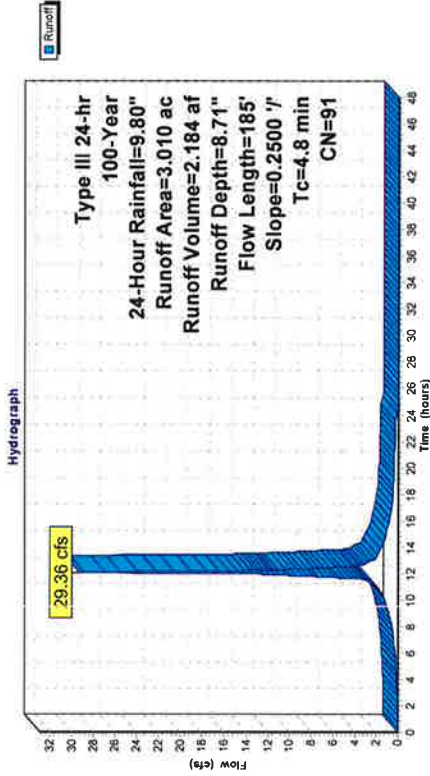
Summary for Subcatchment A5: A5

Runoff = 29.36 cfs @ 12.07 hrs, Volume= 2,184 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
3,010	91	100.00% Pervious Area

Tc	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	185	0.2500	0.64		Sheet Flow, Range n= 0.130 P2= 3.75"

Subcatchment A5: A5



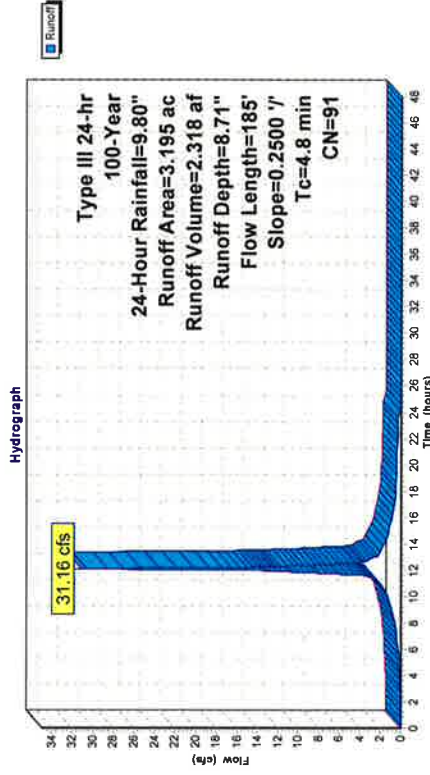
Summary for Subcatchment A6: A6

Runoff = 31.16 cfs @ 12.07 hrs, Volume= 2,318 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
3,195	91	100.00% Pervious Area

Tc	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	185	0.2500	0.64		Sheet Flow, Range n= 0.130 P2= 3.75"

Subcatchment A6: A6



Summary for Subcatchment B1: B1

Runoff = 4.75 cfs @ 12.09 hrs, Volume= 0.372 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

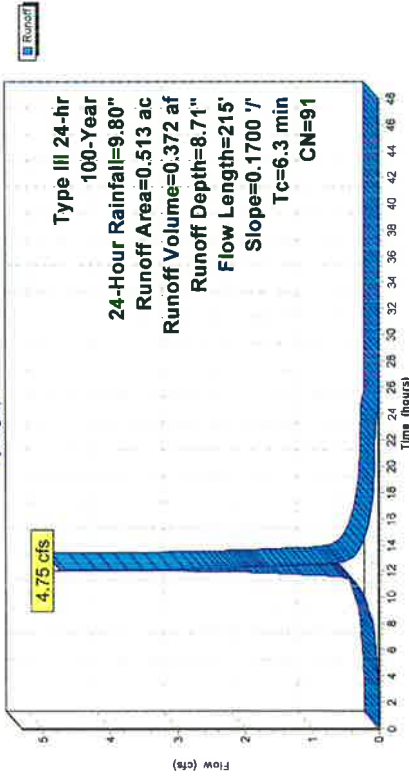
Area (ac)	CN	Description
0.513	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	215	0.1700	0.57		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment B1: B1

Hydrograph



Summary for Subcatchment B2: B2

Runoff = 15.82 cfs @ 12.10 hrs, Volume= 1.278 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

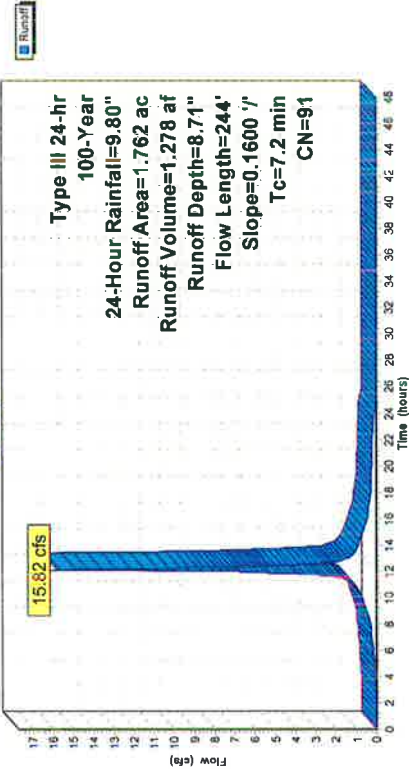
Area (ac)	CN	Description
1.762	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	244	0.1600	0.57		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment B2: B2

Hydrograph



Summary for Subcatchment B3: B3

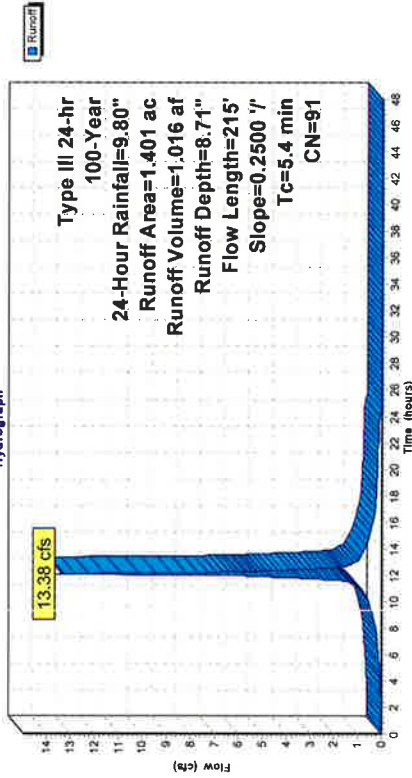
Runoff = 13.38 cfs @ 12.08 hrs, Volume= 1,016 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description		
1.401	91			
1.401		100.00% Pervious Area		
Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	215	0.2500	0.66	

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment B3: B3

Hydrograph



Summary for Subcatchment B4: B4

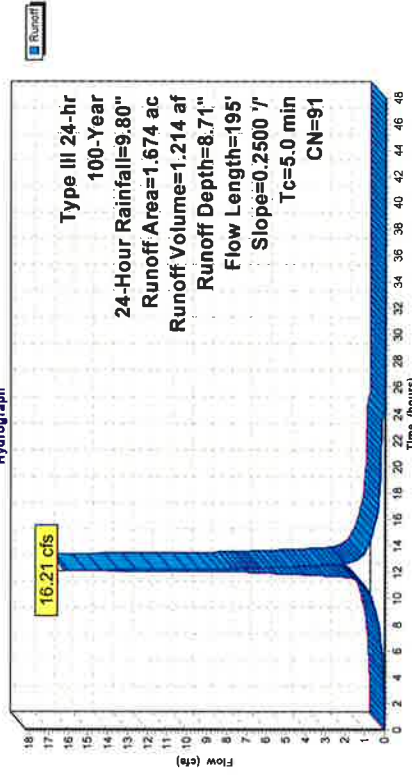
Runoff = 16.21 cfs @ 12.07 hrs, Volume= 1,214 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description		
1.674	91			
1.674		100.00% Pervious Area		
Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	195	0.2500	0.65	

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment B4: B4

Hydrograph



Summary for Subcatchment B5: B5

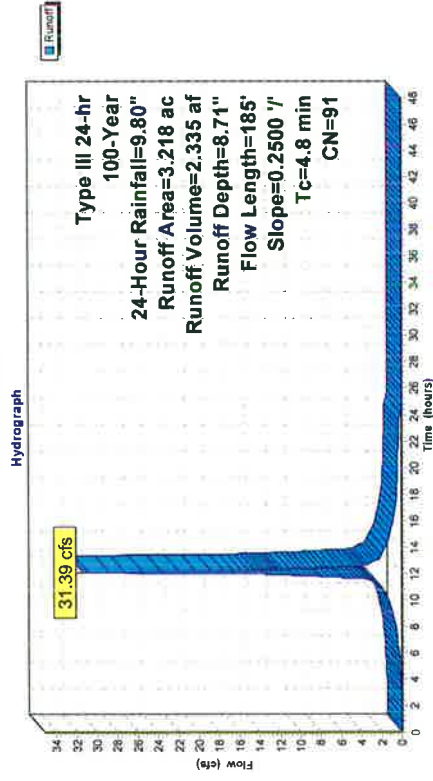
Runoff = 31.39 cfs @ 12.07 hrs, Volume= 2,335 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
3,218	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	185	0.2500	0.64		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment B5: B5



Summary for Subcatchment B6: B6

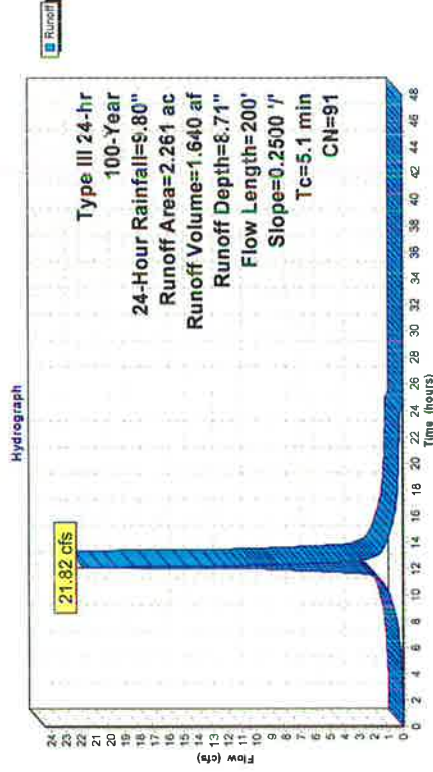
Runoff = 21.82 cfs @ 12.07 hrs, Volume= 1,640 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
2,261	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	200	0.2500	0.65		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment B6: B6

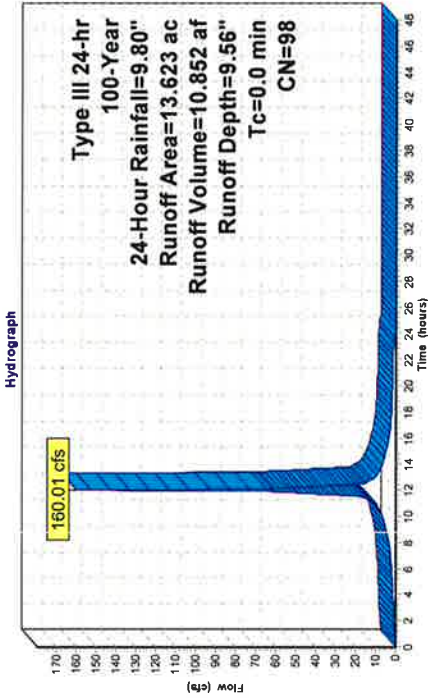


Summary for Subcatchment Basin: Basin

Runoff = 160.01 cfs @ 12.00 hrs, Volume= 10.852 af, Depth= 9.56"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
13.623	98	Water Surface, HSG D
13.623		100.00% Impervious Area

Subcatchment Basin: Basin



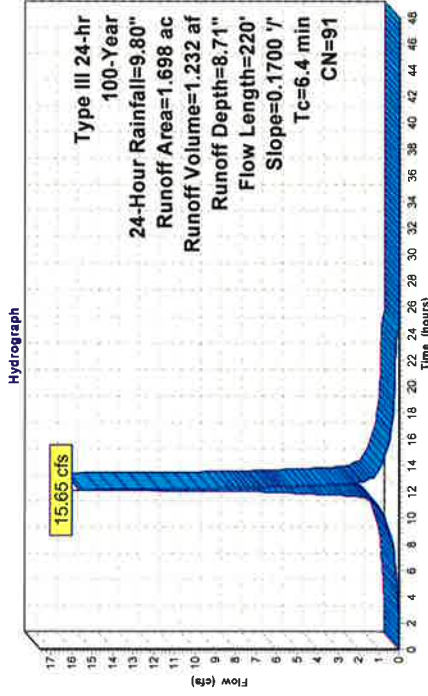
Summary for Subcatchment C1: C1

Runoff = 15.65 cfs @ 12.09 hrs, Volume= 1.232 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
1.698	91	100.00% Pervious Area

Tc Length Slope Velocity Capacity Description
 (min) (feet) (ft/ft) (ft/sec) (cfs)
 6.4 220 0.1700 0.57
Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment C1: C1



Summary for Subcatchment C2: C2

Runoff = 10.31 cfs @ 12.07 hrs, Volume= 0.764 af, Depth= 8.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

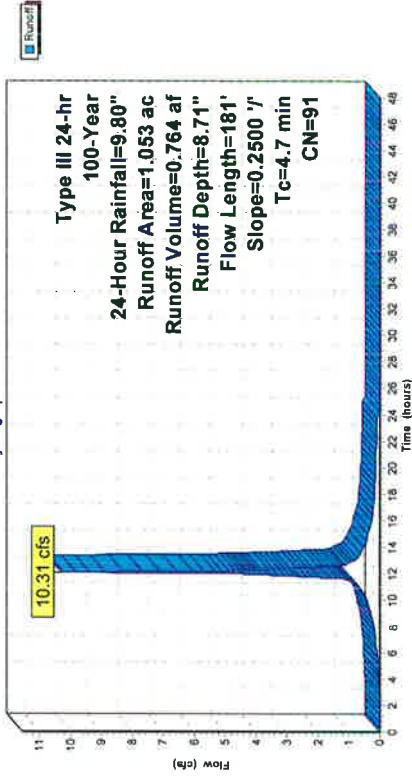
Area (ac)	CN	Description
1.053	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.7	181	0.2500	0.64		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment C2: C2

Hydrograph



Summary for Subcatchment C3: C3

Runoff = 19.55 cfs @ 12.07 hrs, Volume= 1.470 af, Depth= 8.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

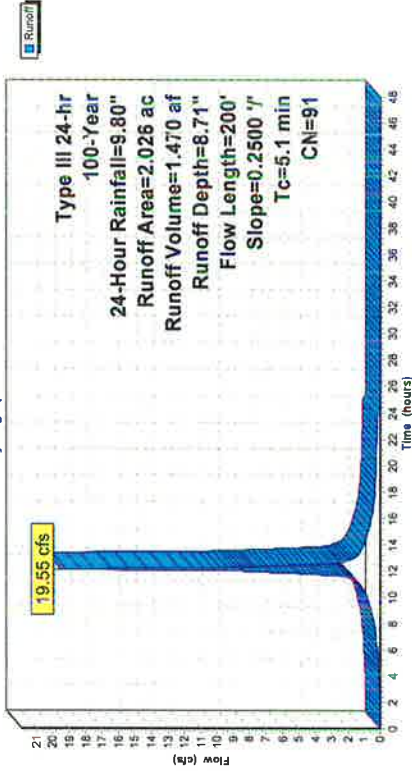
Area (ac)	CN	Description
2.026	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	200	0.2500	0.65		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment C3: C3

Hydrograph



Summary for Subcatchment C4: C4

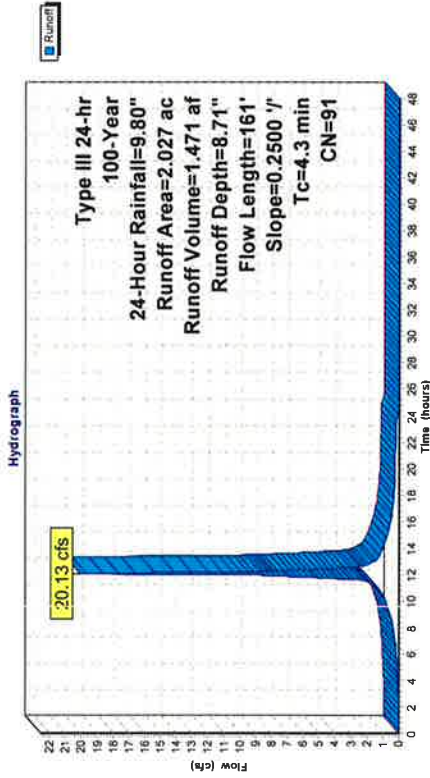
Runoff = 20.13 cfs @ 12.06 hrs, Volume= 1,471 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
2.027	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	161	0.2500	0.62		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment C4: C4



Summary for Subcatchment C5: C5

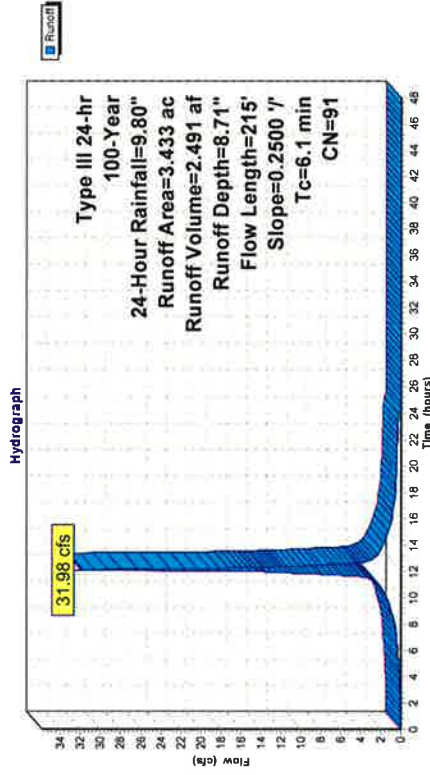
Runoff = 31.98 cfs @ 12.08 hrs, Volume= 2,491 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
3.433	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	215	0.2500	0.59		

Sheet Flow,
 Grass: Short n= 0.150 P2= 3.75"

Subcatchment C5: C5



Summary for Subcatchment C6: C6

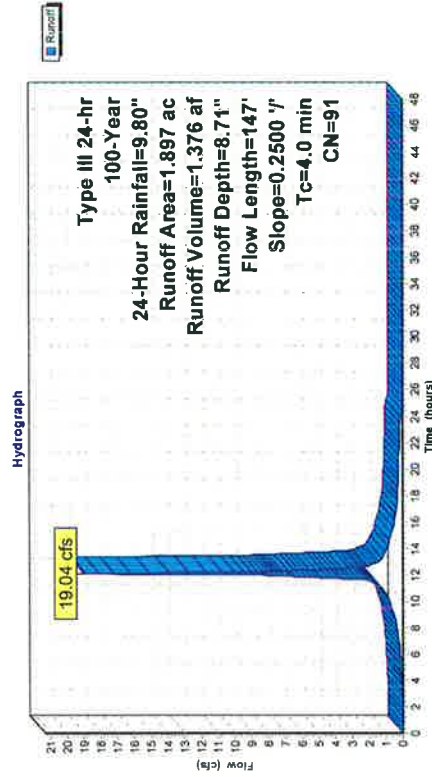
Runoff = 19.04 cfs @ 12.06 hrs, Volume= 1,376 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
1.897	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	147	0.2500	0.61		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment C6: C6



Summary for Subcatchment C7: C7

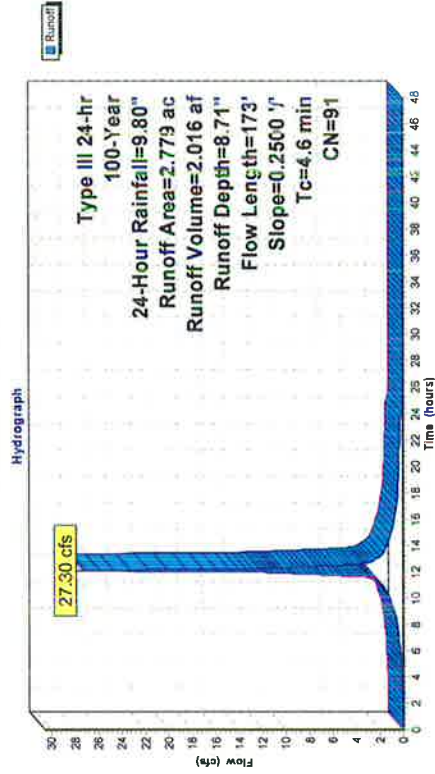
Runoff = 27.30 cfs @ 12.06 hrs, Volume= 2,016 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
2.779	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	173	0.2500	0.63		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment C7: C7



Summary for Subcatchment D1: D1

Runoff = 21.86 cfs @ 12.10 hrs, Volume= 1,774 af, Depth= 8.71"

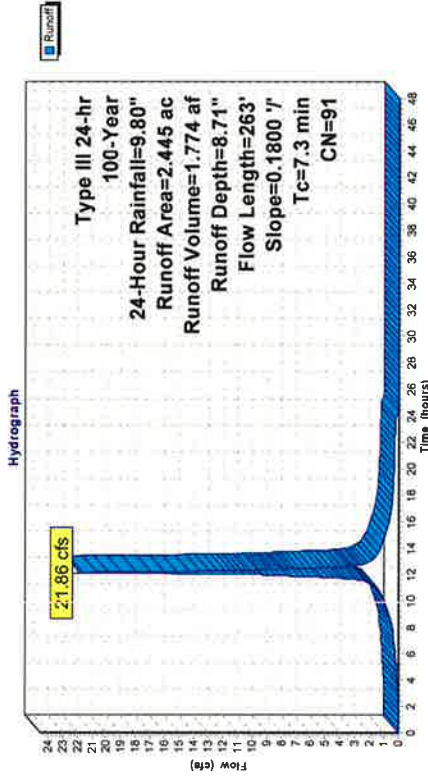
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
2,445	91	100.00% Pervious Area

Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	263	0.1800	0.60	

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment D1: D1



Summary for Subcatchment D2: D2

Runoff = 20.95 cfs @ 12.11 hrs, Volume= 1,722 af, Depth= 8.71"

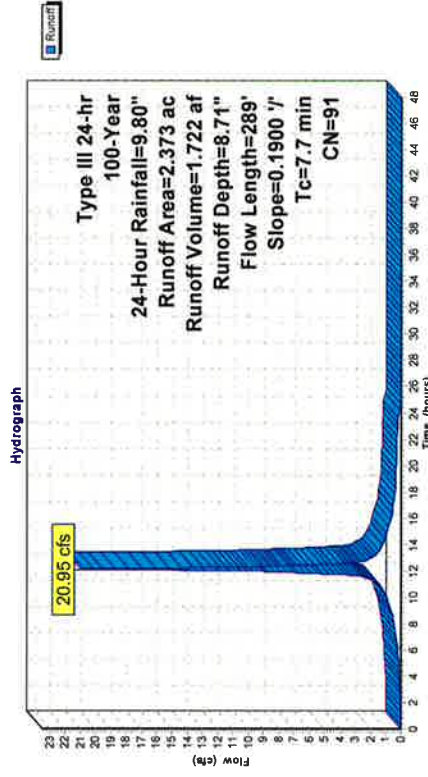
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
2,373	91	100.00% Pervious Area

Tc Length (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	289	0.1900	0.63	

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment D2: D2



Summary for Subcatchment D3: D3

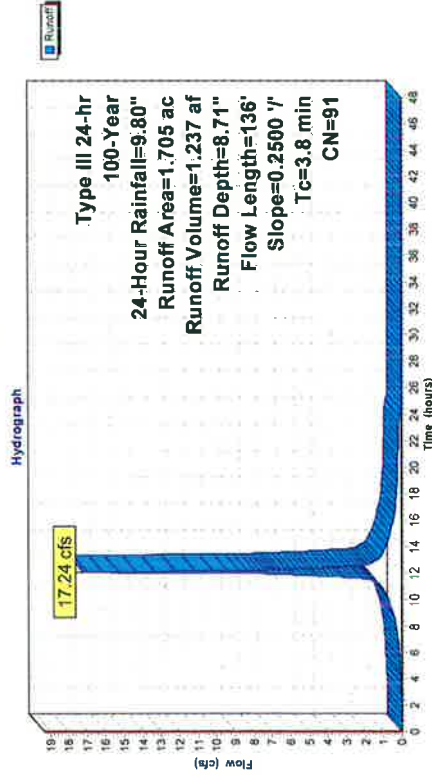
Runoff = 17.24 cfs @ 12.05 hrs, Volume= 1,237 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
1,705	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.8	136	0.2500	0.60		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment D3: D3



Summary for Subcatchment D4: D4

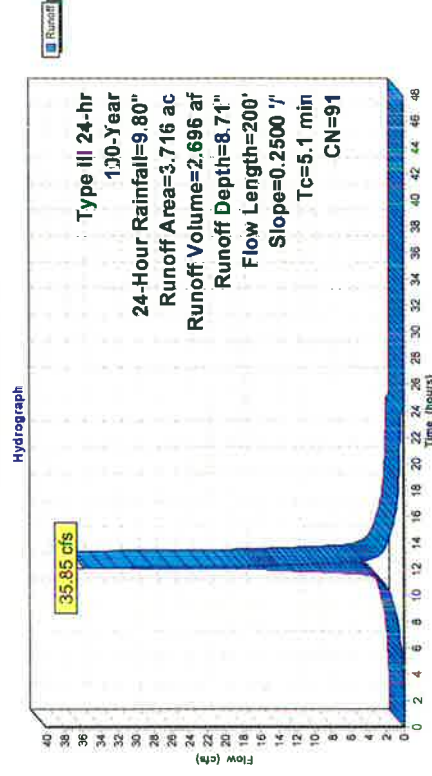
Runoff = 35.85 cfs @ 12.07 hrs, Volume= 2,696 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
3,716	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	200	0.2500	0.65		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment D4: D4



Summary for Subcatchment D5: D5

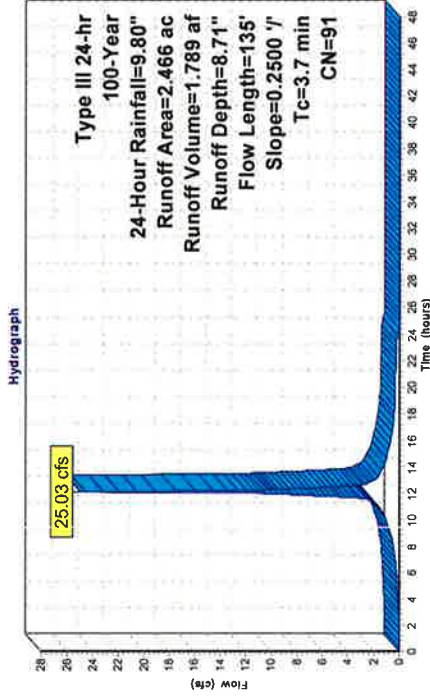
Runoff = 25.03 cfs @ 12.05 hrs, Volume= 1,789 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
2,466	91	100.00% Pervious Area

Tc Length (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.7	135	0.2500	0.60	

Sheet Flow, Range n= 0.130 P2= 3.75"

Subcatchment D5: D5



Summary for Subcatchment E1: E1

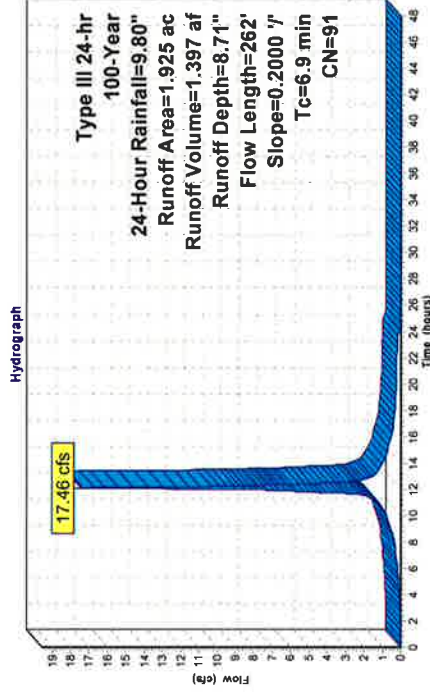
Runoff = 17.46 cfs @ 12.09 hrs, Volume= 1,397 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
1,925	91	100.00% Pervious Area

Tc Length (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	262	0.2000	0.63	

Sheet Flow, Range n= 0.130 P2= 3.75"

Subcatchment E1: E1



Summary for Subcatchment E2: E2

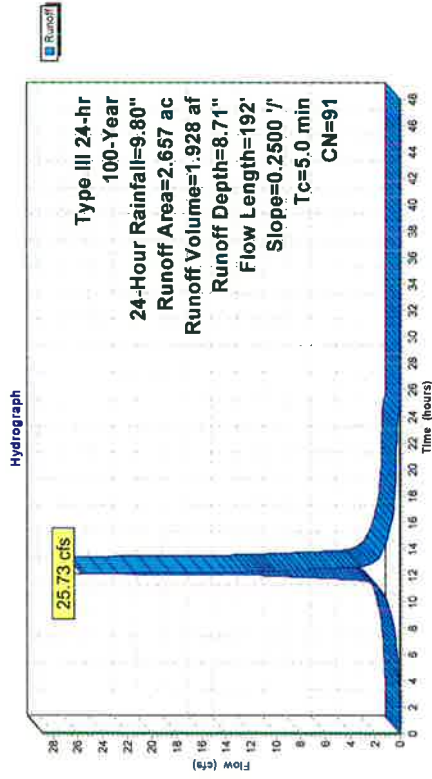
Runoff = 25.73 cfs @ 12.07 hrs, Volume= 1,928 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
2.657	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	192	0.2500	0.65		

Sheet Flow, Range n= 0.130 P2= 3.75"

Subcatchment E2: E2



Summary for Subcatchment E3: E3

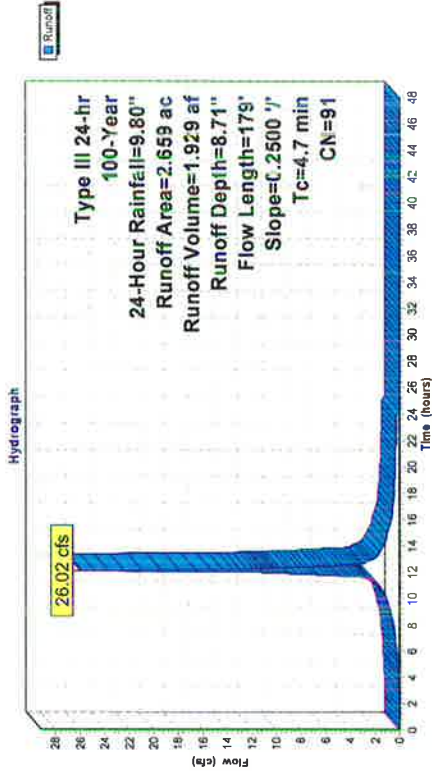
Runoff = 26.02 cfs @ 12.07 hrs, Volume= 1,929 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
2.659	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.7	179	0.2500	0.64		

Sheet Flow, Range n= 0.130 P2= 3.75"

Subcatchment E3: E3



Summary for Subcatchment F1: F1

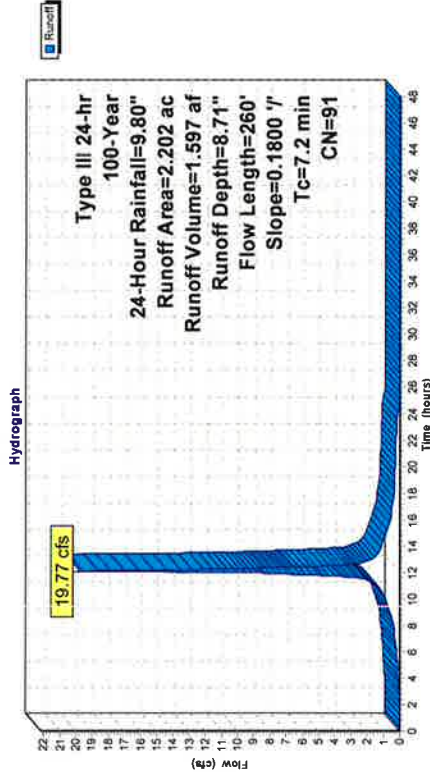
Runoff = 19.77 cfs @ 12.10 hrs, Volume= 1,597 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
2,202	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	260	0.1800	0.60		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment F1: F1



Summary for Subcatchment F2: F2

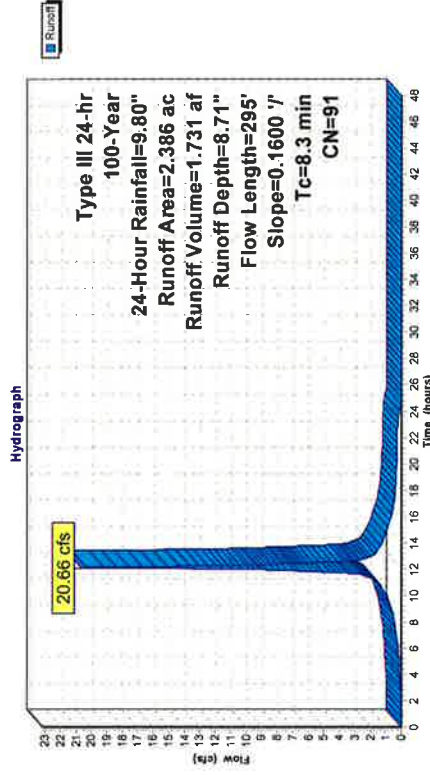
Runoff = 20.66 cfs @ 12.11 hrs, Volume= 1,731 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
2,386	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	295	0.1600	0.59		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment F2: F2



Summary for Subcatchment F3: F3

Runoff = 37.47 cfs @ 12.08 hrs, Volume= 2.847 af, Depth= 8.71"

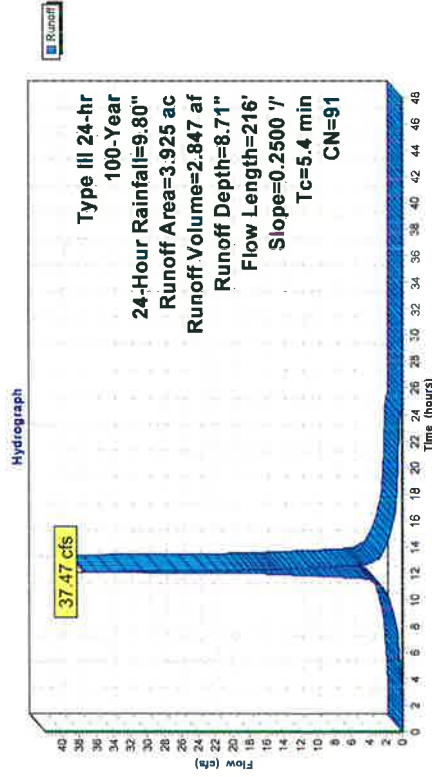
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
3.925	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	216	0.2500	0.66		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment F3: F3



Summary for Subcatchment F4: F4

Runoff = 19.36 cfs @ 12.06 hrs, Volume= 1.415 af, Depth= 8.71"

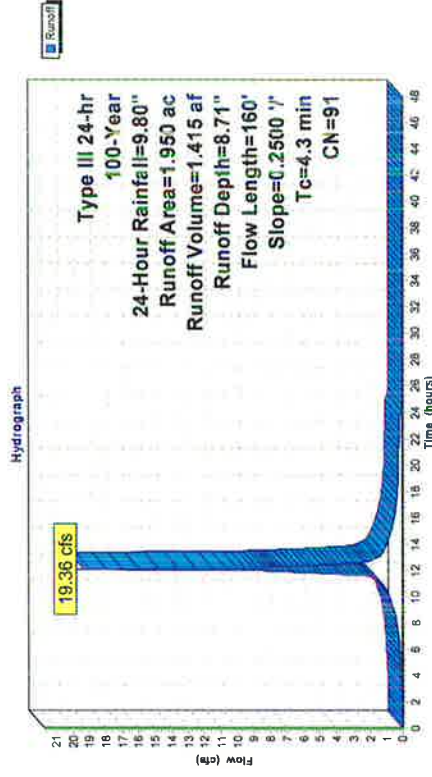
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, c= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
1.950	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	160	0.2500	0.62		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment F4: F4



Summary for Subcatchment F5: F5

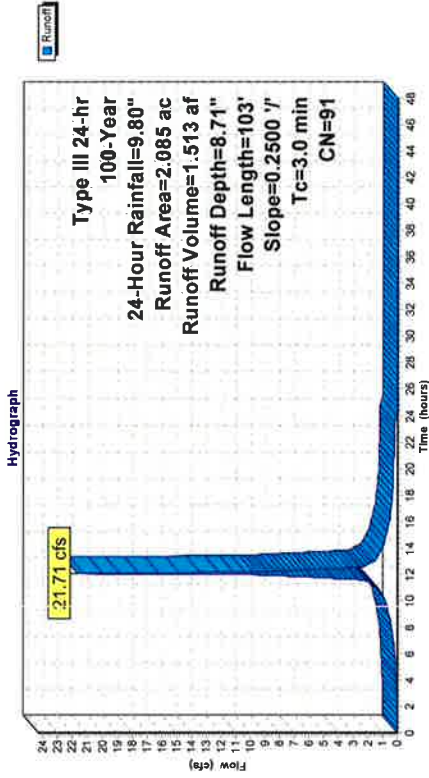
Runoff = 21.71 cfs @ 12.04 hrs, Volume= 1,513 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
2,085	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	103	0.2500	0.57		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment F5: F5



Summary for Subcatchment G1: G1

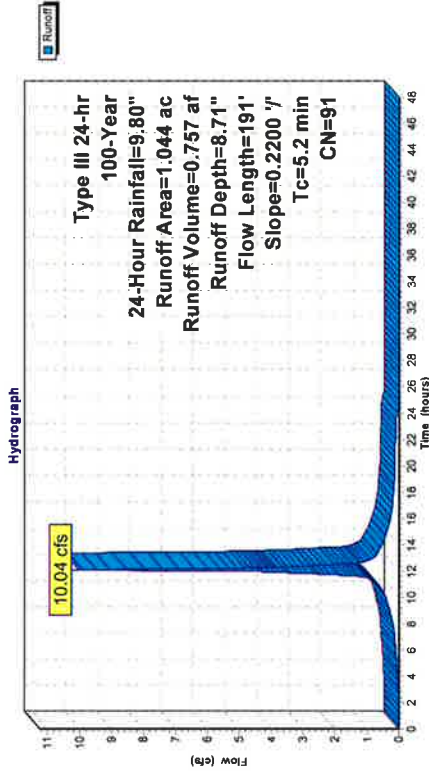
Runoff = 10.04 cfs @ 12.07 hrs, Volume= 0.757 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
1,044	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	191	0.2200	0.61		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment G1: G1



Summary for Subcatchment G2: G2

Runoff = 20.58 cfs @ 12.09 hrs, Volume= 1.619 af, Depth= 8.71"

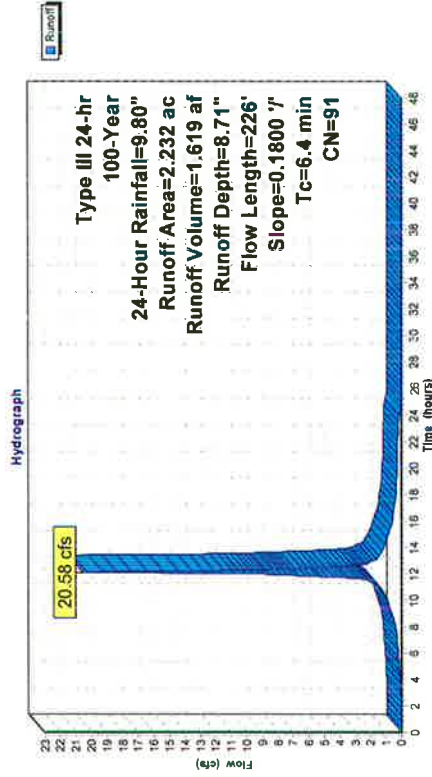
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
2.232	91	100.00% Pervious Area
2.232		

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	226	0.1800	0.59		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment G2: G2



Summary for Subcatchment G3: G3

Runoff = 19.36 cfs @ 12.07 hrs, Volume= 1.440 af, Depth= 8.71"

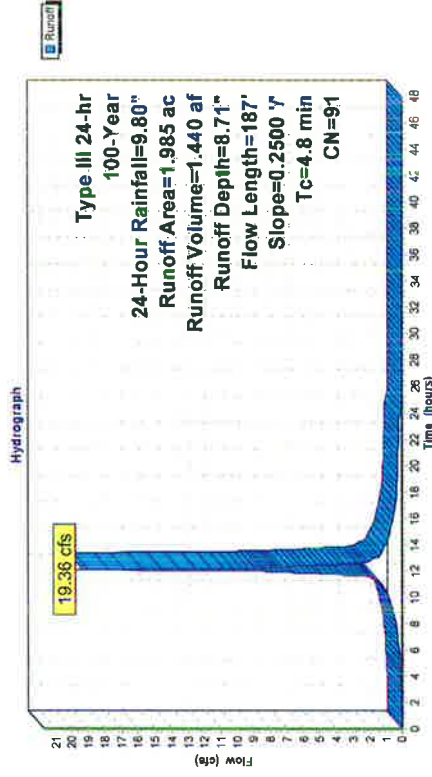
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, ct= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
1.985	91	100.00% Pervious Area
1.985		

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	187	0.2500	0.64		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment G3: G3



Summary for Subcatchment G4: G4

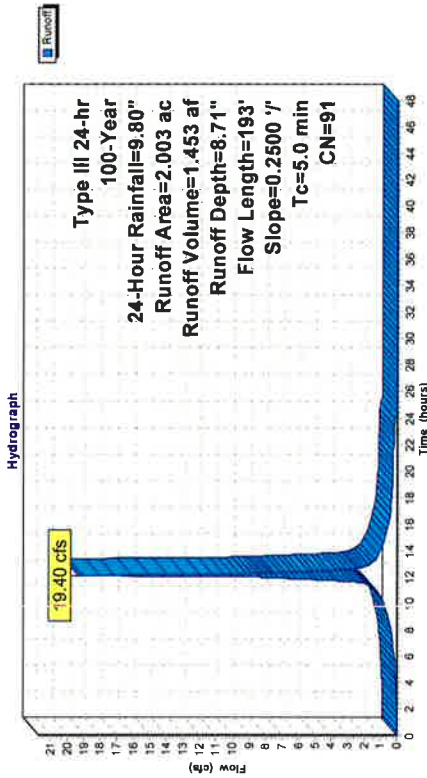
Runoff = 19.40 cfs @ 12.07 hrs, Volume= 1,453 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
2,003	91	100.00% Pervious Area

Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	193	0.2500	0.65	

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment G4: G4



Summary for Subcatchment G5: G5

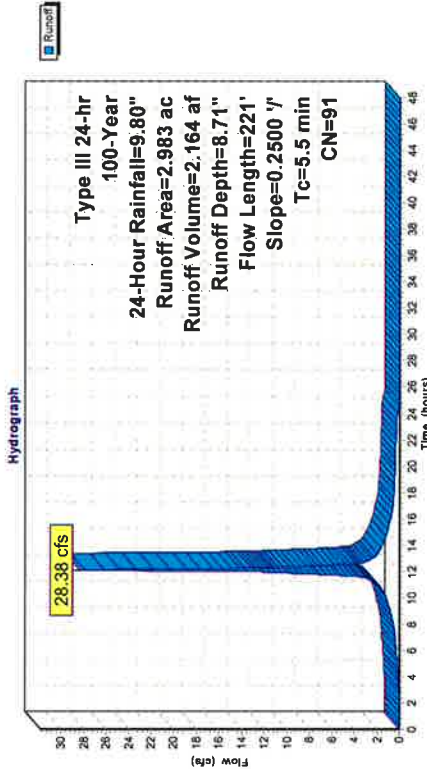
Runoff = 28.38 cfs @ 12.08 hrs, Volume= 2,164 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
2,983	91	100.00% Pervious Area

Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	221	0.2500	0.66	

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment G5: G5



Summary for Subcatchment G6: G6

Runoff = 27.01 cfs @ 12.07 hrs, Volume= 2,016 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

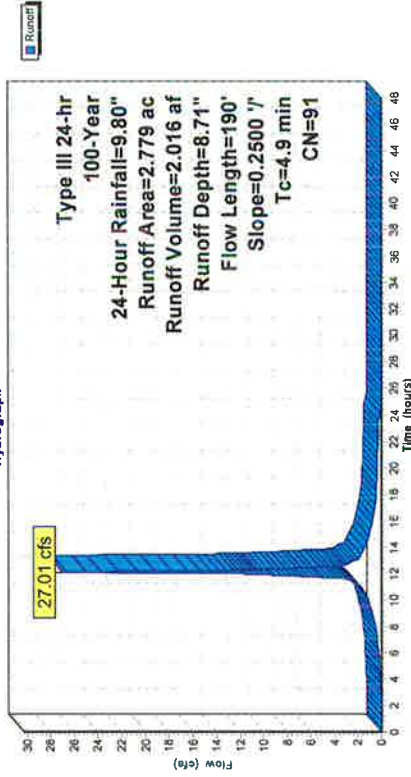
Area (ac)	CN	Description
2,779	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.9	190	0.2500	0.64		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment G6: G6

Hydrograph



Type III 24-hr
 100-Year
 24-Hour Rainfall=9.80"
 Runoff Area=2,779 ac
 Runoff Volume=2,016 af
 Runoff Depth=8.71"
 Flow Length=190'
 Slope=0.2500 '/
 Tc=4.9 min
 CN=91

Summary for Subcatchment H1: H1

Runoff = 16.92 cfs @ 12.09 hrs, Volume= 1,345 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

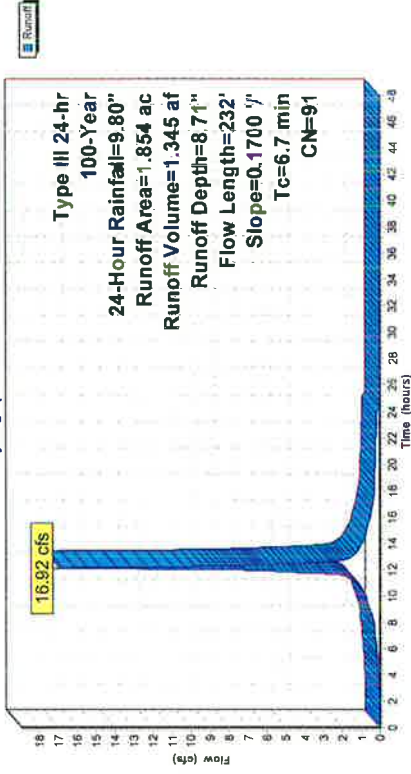
Area (ac)	CN	Description
1,854	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	232	0.1700	0.58		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment H1: H1

Hydrograph



Type III 24-hr
 100-Year
 24-Hour Rainfall=9.80"
 Runoff Area=1,854 ac
 Runoff Volume=1,345 af
 Runoff Depth=8.71"
 Flow Length=232'
 Slope=0.1700 '/
 Tc=6.7 min
 CN=91

Summary for Subcatchment H2: H2

Runoff = 5.26 cfs @ 12.09 hrs, Volume= 0.414 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

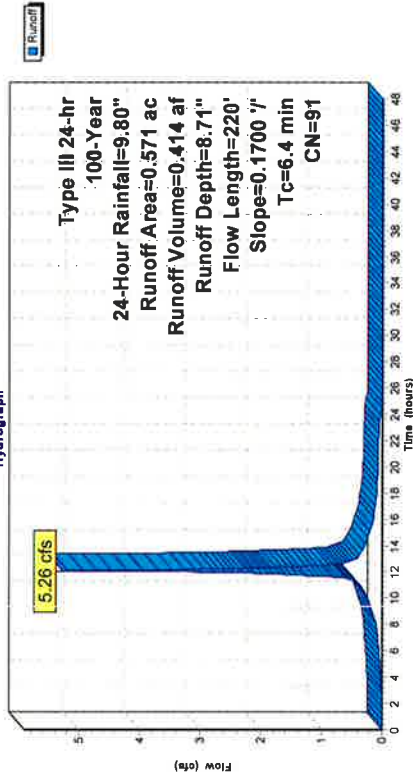
Area (ac)	CN	Description
0.571	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	220	0.1700	0.57		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment H2: H2

Hydrograph



Summary for Subcatchment H3: H3

Runoff = 16.11 cfs @ 12.07 hrs, Volume= 1.215 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

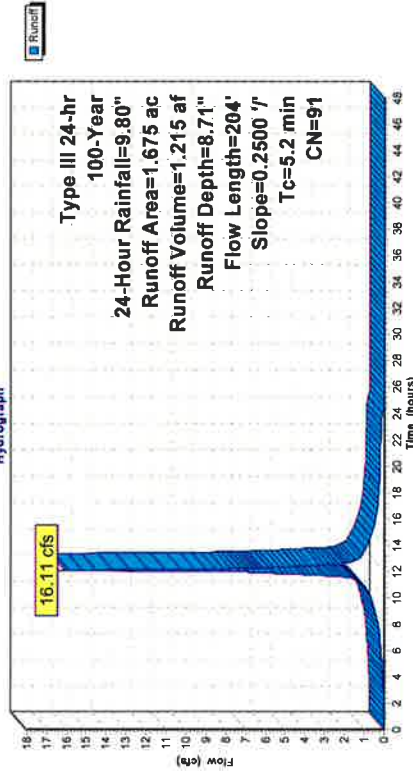
Area (ac)	CN	Description
1.675	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	204	0.2500	0.65		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment H3: H3

Hydrograph



Summary for Subcatchment H4: H4

Runoff = 14.98 cfs @ 12.08 hrs, Volume= 1,138 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

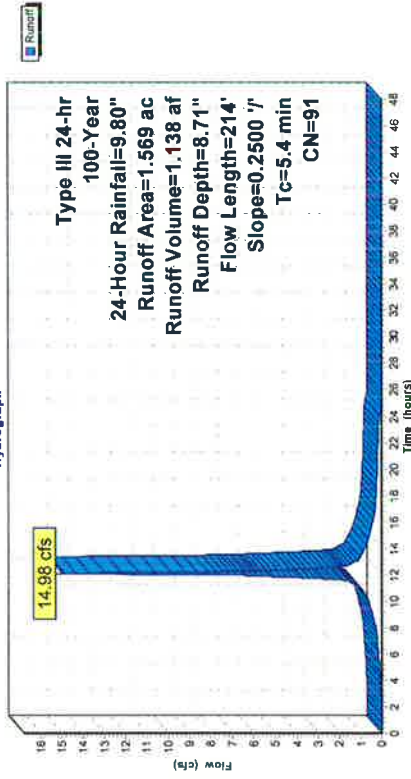
Area (ac)	CN	Description
1,569	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	214	0.2500	0.66		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment H4: H4

Hydrograph



Summary for Subcatchment H5: H5

Runoff = 20.85 cfs @ 12.07 hrs, Volume= 1,551 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

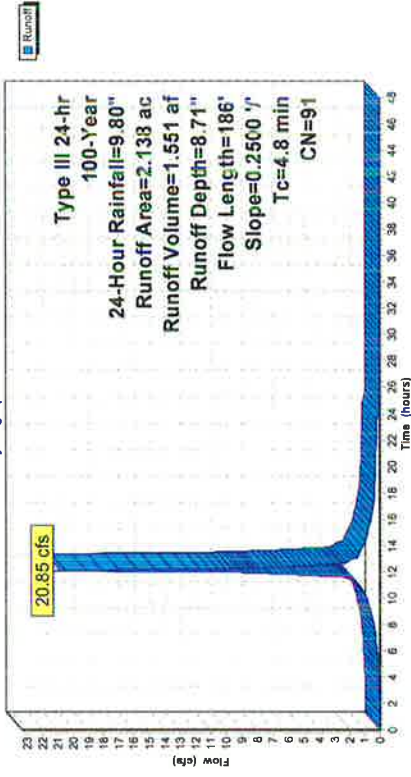
Area (ac)	CN	Description
2,138	91	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	186	0.2500	0.64		

Sheet Flow,
 Range n= 0.130 P2= 3.75"

Subcatchment H5: H5

Hydrograph

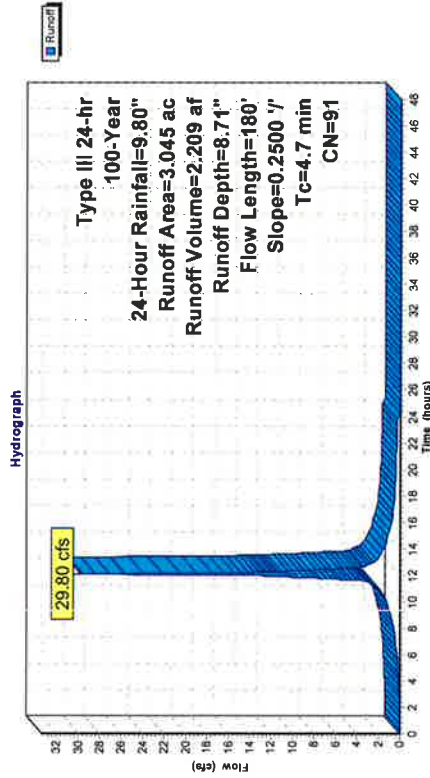


Summary for Subcatchment H6: H6

Runoff = 29.80 cfs @ 12.07 hrs, Volume= 2,209 af, Depth= 8.71"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year, 24-Hour Rainfall=9.80"

Area (ac)	CN	Description
3.045	91	100.00% Pervious Area
Tc (min)	Slope (ft/ft)	Capacity (cfs)
4.7	180	0.2500
Sheet Flow,		
Range n= 0.130 P2= 3.75"		

Subcatchment H6: H6



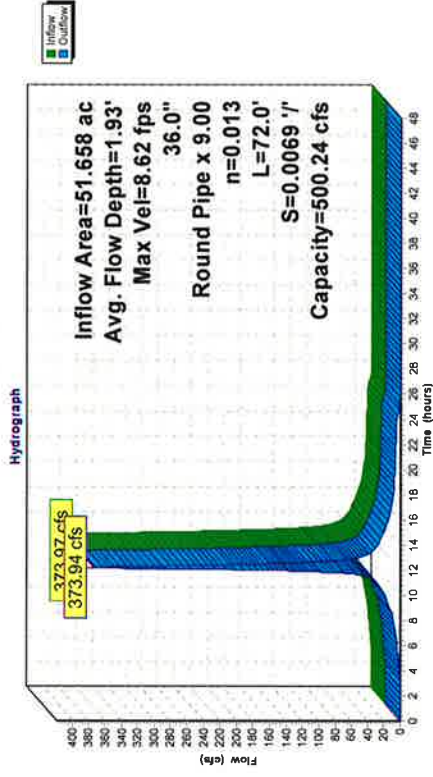
Summary for Reach CULVERTS 1: Culverts 1

Inflow Area = 51.658 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 373.97 cfs @ 12.17 hrs, Volume= 37,476 af
 Outflow = 373.94 cfs @ 12.17 hrs, Volume= 37,476 af, Atten= 0%, Lag= 0.1 min
 Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 8.62 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 2.54 fps, Avg. Travel Time= 0.5 min

Peak Storage= 3,122 cf @ 12.17 hrs
 Average Depth at Peak Storage= 1.93'
 Bank-Full Depth= 3.00' Flow Area= 63.6 sf, Capacity= 500.24 cfs
 36.0" Round Pipe
 A factor of 9.00 has been applied to the storage and discharge capacity
 n= 0.013 Corrugated PE, smooth interior
 Length= 72.0' Slope= 0.0069 /'
 Inlet Invert= 553.00', Outlet Invert= 552.50'



Reach CULVERTS 1: Culverts 1



Summary for Reach CULVERTS 2: Culverts 2

Inflow Area = 41,010 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 317.95 cfs @ 12.15 hrs, Volume= 29,751 af
 Outflow = 317.91 cfs @ 12.15 hrs, Volume= 29,751 af, Atten= 0%, Lag= 0.1 min

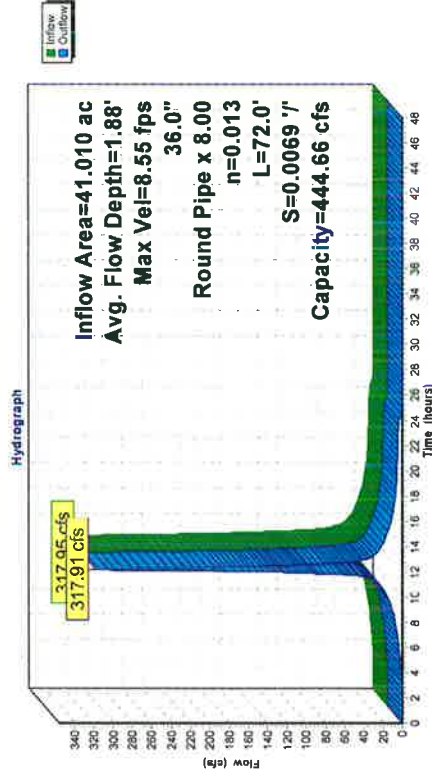
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 8.55 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 2.63 fps, Avg. Travel Time= 0.5 min

Peak Storage= 2,678 cf @ 12.15 hrs
 Average Depth at Peak Storage= 1.88'
 Bank-Full Depth= 3.00' Flow Area= 56.5 sf, Capacity= 444.66 cfs

A factor of 8.00 has been applied to the storage and discharge capacity
 36.0" Round Pipe
 n= 0.013, Corrugated PE, smooth interior
 Length= 72.0' Slope= 0.0069 '/
 Inlet Invert= 553.00', Outlet Invert= 552.50'



Reach CULVERTS 2: Culverts 2



Summary for Reach DA1: DA1

Inflow Area = 1,178 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 10.54 cfs @ 12.11 hrs, Volume= 0.855 af
 Outflow = 10.51 cfs @ 12.12 hrs, Volume= 0.855 af, Atten= 0%, Lag= 0.4 min

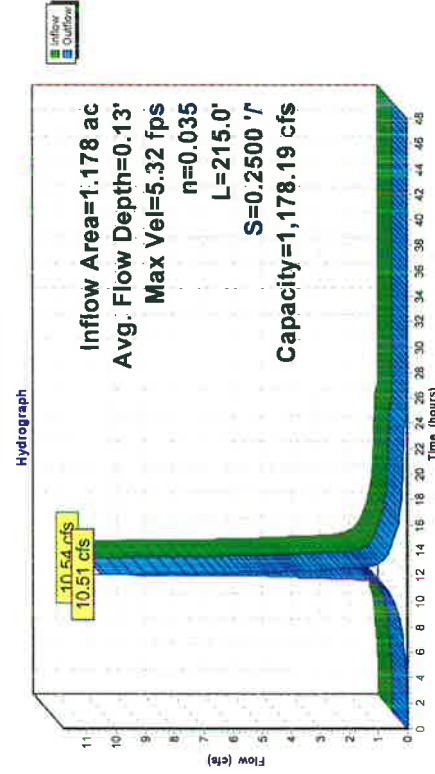
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.32 fps, Min. Travel Time= 0.7 min
 Avg. Velocity = 1.71 fps, Avg. Travel Time= 2.1 min

Peak Storage= 425 cf @ 12.12 hrs
 Average Depth at Peak Storage= 0.13'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.30' deep channel, n= 0.035
 Side Slope Z-value= 3.0 '/ Top Width= 27.00'
 Length= 215.0' Slope= 0.2500 '/
 Inlet Invert= 666.00', Outlet Invert= 612.25'



Reach DA1: DA1



Summary for Reach DA2: DA2

Inflow Area = 4,349 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 39.43 cfs @ 12.10 hrs, Volume = 3,155 af
 Outflow = 39.41 cfs @ 12.11 hrs, Volume = 3,155 af, Atten = 0%, Lag = 0.2 min

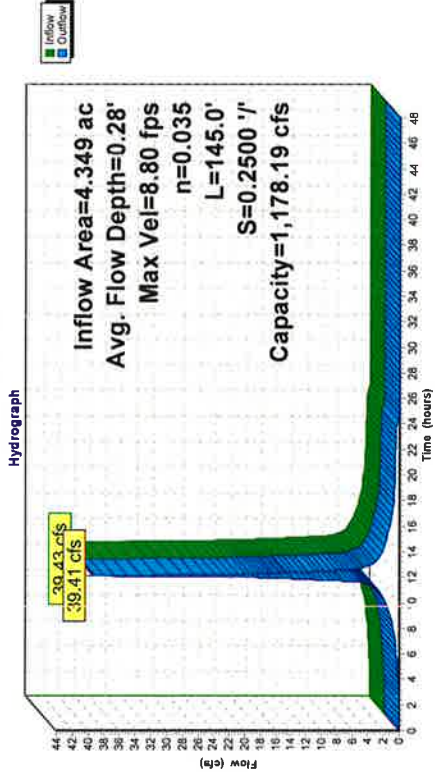
Routing by Stor-Ind method, Time Span = 0.00-48.00 hrs, dt = 0.01 hrs
 Max. Velocity = 6.80 fps, Min. Travel Time = 0.3 min
 Avg. Velocity = 2.20 fps, Avg. Travel Time = 1.1 min

Peak Storage = 649 cf @ 12.11 hrs
 Average Depth at Peak Storage = 0.28'
 Bank-Full Depth = 2.00', Flow Area = 42.0 sf, Capacity = 1,178.19 cfs

15.00' x 2.00' deep channel, n = 0.035
 Side Slope Z-value = 3.0:1', Top Width = 27.00'
 Length = 145.0', Slope = 0.2500 %
 Inlet Invert = 612.25', Outlet Invert = 576.00'



Reach DA2: DA2



Summary for Reach DB1: DB1

Inflow Area = 2,275 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 20.05 cfs @ 12.11 hrs, Volume = 1,650 af
 Outflow = 20.02 cfs @ 12.12 hrs, Volume = 1,650 af, Atten = 0%, Lag = 0.3 min

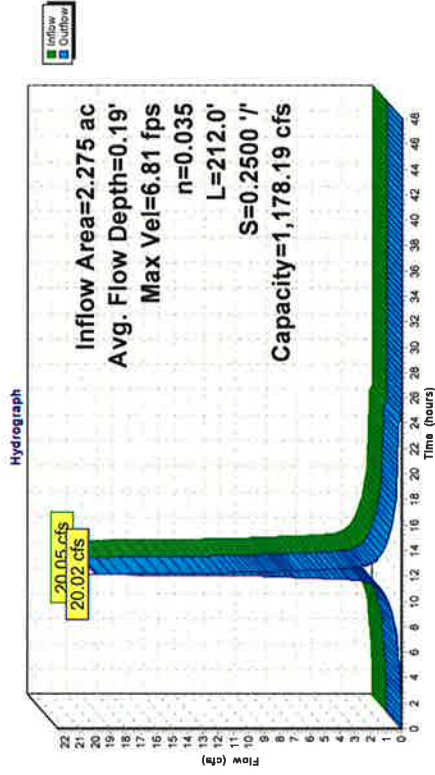
Routing by Stor-Ind method, Time Span = 0.00-48.00 hrs, dt = 0.01 hrs
 Max. Velocity = 6.81 fps, Min. Travel Time = 0.5 min
 Avg. Velocity = 1.89 fps, Avg. Travel Time = 1.9 min

Peak Storage = 623 cf @ 12.12 hrs
 Average Depth at Peak Storage = 0.19'
 Bank-Full Depth = 2.00', Flow Area = 42.0 sf, Capacity = 1,178.19 cfs

15.00' x 2.00' deep channel, n = 0.035
 Side Slope Z-value = 3.0:1', Top Width = 27.00'
 Length = 212.0', Slope = 0.2500 %
 Inlet Invert = 665.84', Outlet Invert = 612.84'



Reach DB1: DB1



Summary for Reach DB2: DB2

Inflow Area = 5.350 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 48.01 cfs @ 12.10 hrs, Volume= 3.881 af
 Outflow = 47.97 cfs @ 12.11 hrs, Volume= 3.881 af, Atten= 0%, Lag= 0.2 min

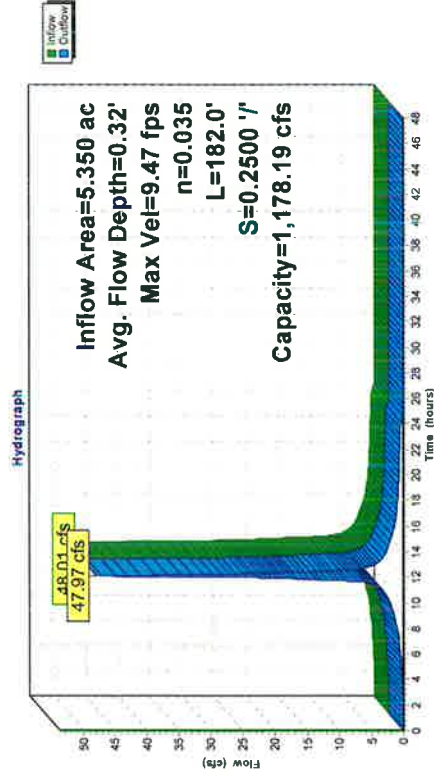
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 9.47 fps, Min. Travel Time= 0.3 min
 Avg. Velocity = 2.35 fps, Avg. Travel Time= 1.3 min

Peak Storage= 922 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.32'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 ' Top Width= 27.00'
 Length= 182.0' Slope= 0.2500 ' /'
 Inlet Invert= 612.84', Outlet Invert= 567.34'



Reach DB2: DB2



Summary for Reach DC1: DC1

Inflow Area = 1.053 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 9.60 cfs @ 12.10 hrs, Volume= 0.764 af
 Outflow = 9.60 cfs @ 12.10 hrs, Volume= 0.764 af, Atten= 0%, Lag= 0.1 min

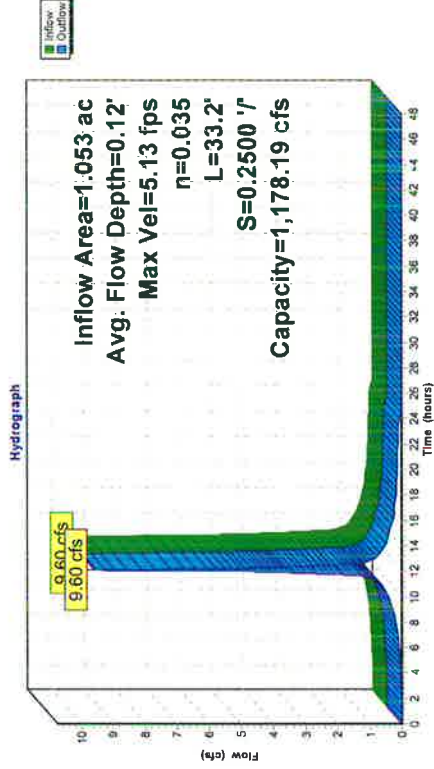
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.13 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 1.69 fps, Avg. Travel Time= 0.3 min

Peak Storage= 62 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.12'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 ' Top Width= 27.00'
 Length= 33.2' Slope= 0.2500 ' /'
 Inlet Invert= 672.10', Outlet Invert= 663.80'



Reach DC1: DC1



Summary for Reach DC2: DC2

Inflow Area = 2.751 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 24.67 cfs @ 12.10 hrs, Volume= 1,996 af
 Outflow = 24.66 cfs @ 12.11 hrs, Volume= 1,996 af, Atten= 0%, Lag= 0.2 min

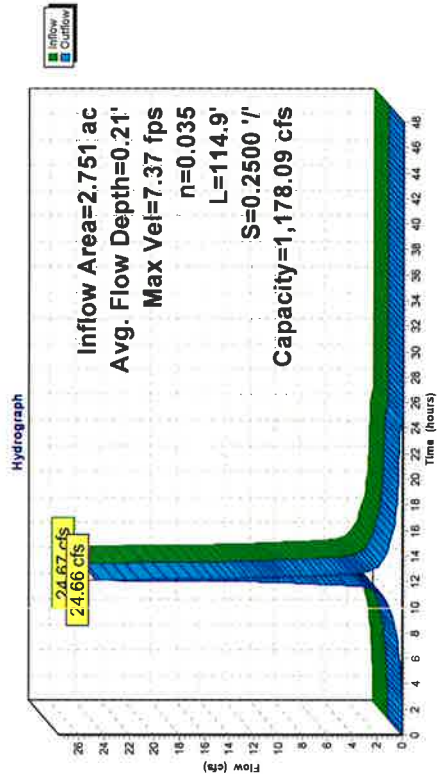
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 7.37 fps, Min. Travel Time= 0.3 min
 Avg. Velocity = 1.96 fps, Avg. Travel Time= 1.0 min

Peak Storage= 384 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.21'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.09 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0:1' Top Width= 27.00'
 Length= 114.9' Slope= 0.2500 1'
 Inlet Invert= 663.80', Outlet Invert= 635.08'



Reach DC2: DC2



Summary for Reach DC3: DC3

Inflow Area = 4.778 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 43.16 cfs @ 12.10 hrs, Volume= 3,466 af
 Outflow = 43.16 cfs @ 12.10 hrs, Volume= 3,466 af, Atten= 0%, Lag= 0.1 min

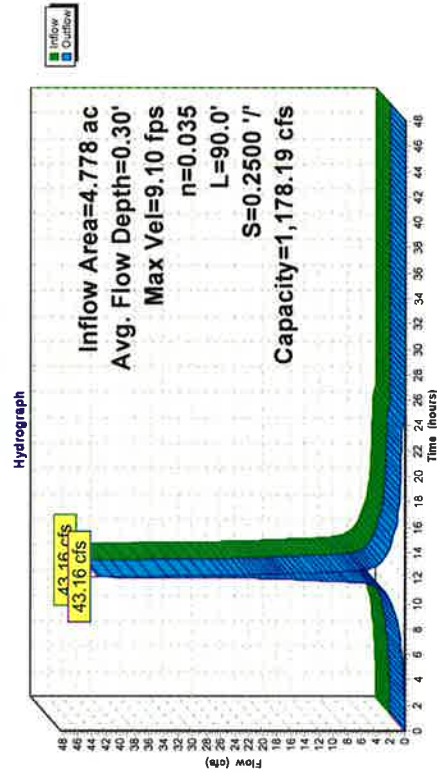
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 9.10 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 2.25 fps, Avg. Travel Time= 0.7 min

Peak Storage= 427 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.30'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0:1' Top Width= 27.00'
 Length= 90.0' Slope= 0.2500 1'
 Inlet Invert= 635.08', Outlet Invert= 612.56'



Reach DC3: DC3



Summary for Reach DC4: DC4

Inflow Area = 6.804 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 61.77 cfs @ 12.10 hrs, Volume= 4.936 af
 Outflow = 61.77 cfs @ 12.10 hrs, Volume= 4.936 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 10.40 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 2.52 fps, Avg. Travel Time= 0.4 min

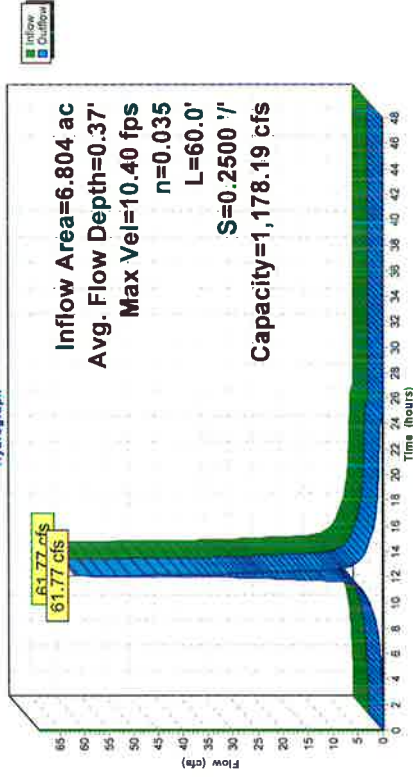
Peak Storage= 356 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.37'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 ' Top Width= 27.00'
 Length= 60.0' Slope= 0.2500 ' /'
 Inlet Invert= 612.58', Outlet Invert= 597.58'



Reach DC4: DC4

Hydrograph



Summary for Reach DC5: DC5

Inflow Area = 8.701 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year 24-Hour event
 Inflow = 79.26 cfs @ 12.10 hrs, Volume= 6.312 af
 Outflow = 79.24 cfs @ 12.10 hrs, Volume= 6.312 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 11.39 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 2.73 fps, Avg. Travel Time= 0.9 min

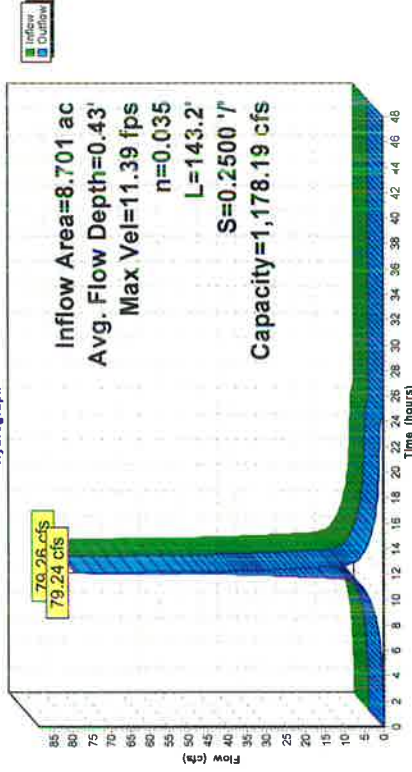
Peak Storage= 995 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.43'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 ' Top Width= 27.00'
 Length= 143.2' Slope= 0.2500 ' /'
 Inlet Invert= 597.58', Outlet Invert= 561.78'



Reach DC5: DC5

Hydrograph



Summary for Reach DD1: DD1

Inflow Area = 2.445 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 20.96 cfs @ 12.13 hrs, Volume = 1,774 af
 Outflow = 20.96 cfs @ 12.13 hrs, Volume = 1,774 af, Atten = 0%, Lag = 0.1 min

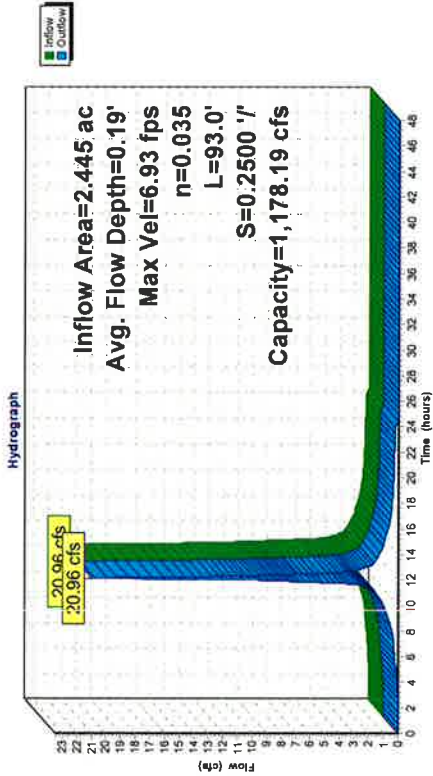
Routing by Stor-Ind method, Time Span = 0.00-48.00 hrs, dt = 0.01 hrs
 Max. Velocity = 6.93 fps, Min. Travel Time = 0.2 min
 Avg. Velocity = 1.91 fps, Avg. Travel Time = 0.8 min

Peak Storage = 281 cf @ 12.13 hrs
 Average Depth at Peak Storage = 0.19'
 Bank-Full Depth = 2.00', Flow Area = 42.0 sf, Capacity = 1,178.19 cfs

15.00' x 2.00' deep channel, n = 0.035
 Side Slope Z-value = 3.0/1', Top Width = 27.00'
 Length = 93.0', Slope = 0.2500 '/
 Inlet Invert = 621.74', Outlet Invert = 598.49'



Reach DD1: DD1



Summary for Reach DD2: DD2

Inflow Area = 4.818 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 41.18 cfs @ 12.13 hrs, Volume = 3,495 af
 Outflow = 41.18 cfs @ 12.13 hrs, Volume = 3,495 af, Atten = 0%, Lag = 0.0 min

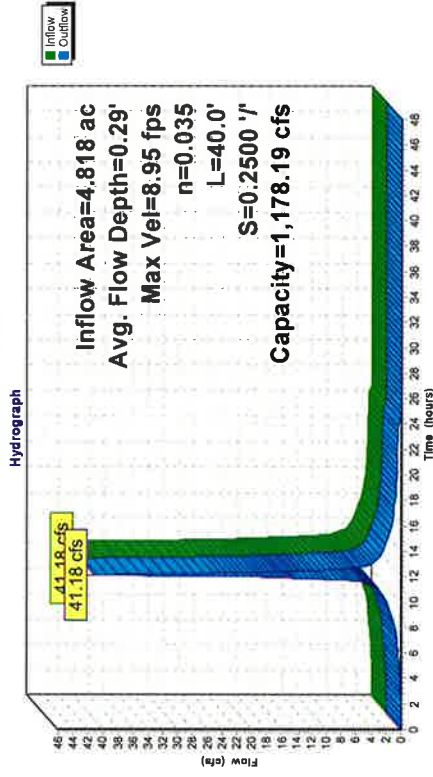
Routing by Stor-Ind method, Time Span = 0.00-48.00 hrs, dt = 0.01 hrs
 Max. Velocity = 8.95 fps, Min. Travel Time = 0.1 min
 Avg. Velocity = 2.26 fps, Avg. Travel Time = 0.3 min

Peak Storage = 184 cf @ 12.13 hrs
 Average Depth at Peak Storage = 0.29'
 Bank-Full Depth = 2.00', Flow Area = 42.0 sf, Capacity = 1,178.19 cfs

15.00' x 2.00' deep channel, n = 0.035
 Side Slope Z-value = 3.0/1', Top Width = 27.00'
 Length = 40.0', Slope = 0.2500 '/
 Inlet Invert = 598.50', Outlet Invert = 588.50'



Reach DD2: DD2



Summary for Reach DD3: DD3

Inflow Area = 6.523 ac, 0.00% impervious, inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 55.40 cfs @ 12.11 hrs, Volume= 4.732 af
 Outflow = 55.38 cfs @ 12.12 hrs, Volume= 4.732 af, Atten= 0%, Lag= 0.1 min

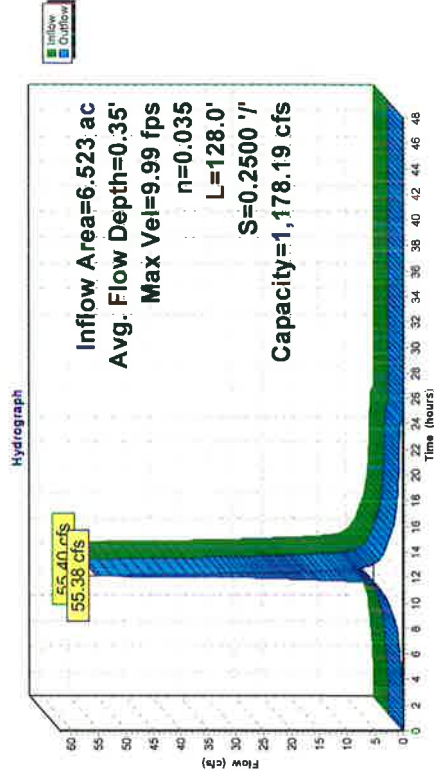
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 9.99 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 2.49 fps, Avg. Travel Time= 0.9 min

Peak Storage= 710 cf @ 12.12 hrs
 Average Depth at Peak Storage= 0.35'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 ' Top Width= 27.00'
 Length= 128.0' Slope= 0.2500 ' /'
 Inlet Invert= 588.50', Outlet Invert= 556.50'



Reach DD3: DD3



Summary for Reach DE1: DE1

Inflow Area = 1.925 ac, 0.00% impervious, inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 16.47 cfs @ 12.13 hrs, Volume= 1.397 af
 Outflow = 16.45 cfs @ 12.13 hrs, Volume= 1.397 af, Atten= 0%, Lag= 0.3 min

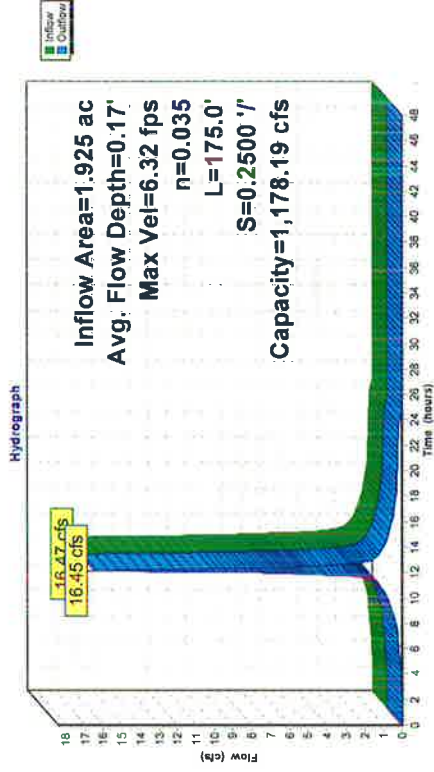
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 6.32 fps, Min. Travel Time= 0.5 min
 Avg. Velocity = 1.83 fps, Avg. Travel Time= 1.6 min

Peak Storage= 455 cf @ 12.13 hrs
 Average Depth at Peak Storage= 0.17'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 ' Top Width= 27.00'
 Length= 175.0' Slope= 0.2500 ' /'
 Inlet Invert= 597.00', Outlet Invert= 553.25'



Reach DE1: DE1



Summary for Reach DF1: DF1

Inflow Area = 2.386 ac, 0.00% impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 19.90 cfs @ 12.14 hrs, Volume= 1,731 af
 Outflow = 19.90 cfs @ 12.14 hrs, Volume= 1,731 af, Atten= 0%, Lag= 0.1 min

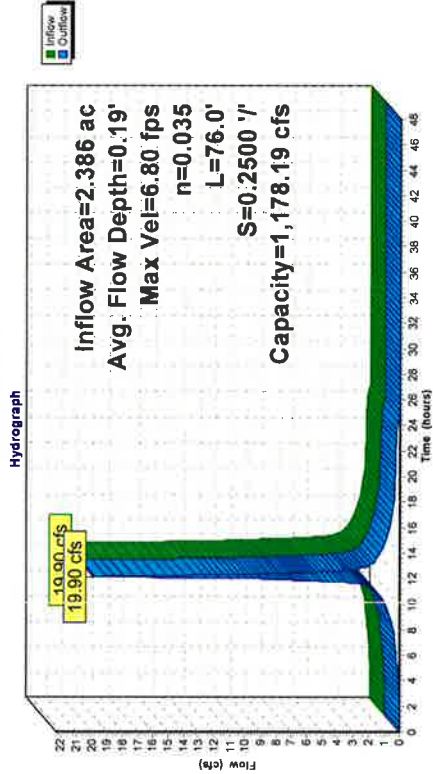
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 6.80 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 1.90 fps, Avg. Travel Time= 0.7 min

Peak Storage= 222 cf @ 12.14 hrs
 Average Depth at Peak Storage= 0.19'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0' Top Width= 27.00'
 Length= 76.0' Slope= 0.2500 %
 Inlet Invert= 622.00', Outlet Invert= 603.00'



Reach DF1: DF1



Summary for Reach DF2: DF2

Inflow Area = 4.588 ac, 0.00% impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 38.79 cfs @ 12.13 hrs, Volume= 3,328 af
 Outflow = 38.78 cfs @ 12.13 hrs, Volume= 3,328 af, Atten= 0%, Lag= 0.1 min

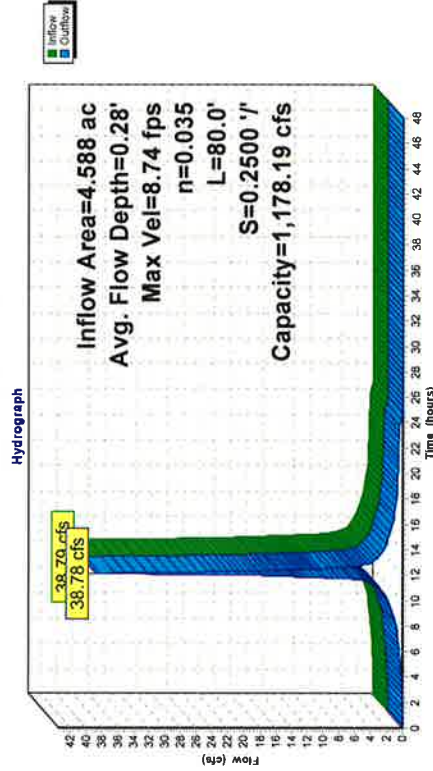
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 8.74 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 2.23 fps, Avg. Travel Time= 0.6 min

Peak Storage= 355 cf @ 12.13 hrs
 Average Depth at Peak Storage= 0.28'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0' Top Width= 27.00'
 Length= 80.0' Slope= 0.2500 %
 Inlet Invert= 603.00', Outlet Invert= 583.00'



Reach DF2: DF2



Summary for Reach DF3: DF3

Inflow Area = 6.538 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 55.30 cfs @ 12.12 hrs, Volume = 4,743 af
 Outflow = 55.29 cfs @ 12.12 hrs, Volume = 4,743 af, Atten = 0%, Lag = 0.1 min
 Routing by Stor-Ind method, Time Span = 0.00-48.00 hrs, dt = 0.01 hrs
 Max. Velocity = 9.98 fps, Min. Travel Time = 0.2 min
 Avg. Velocity = 2.49 fps, Avg. Travel Time = 0.7 min

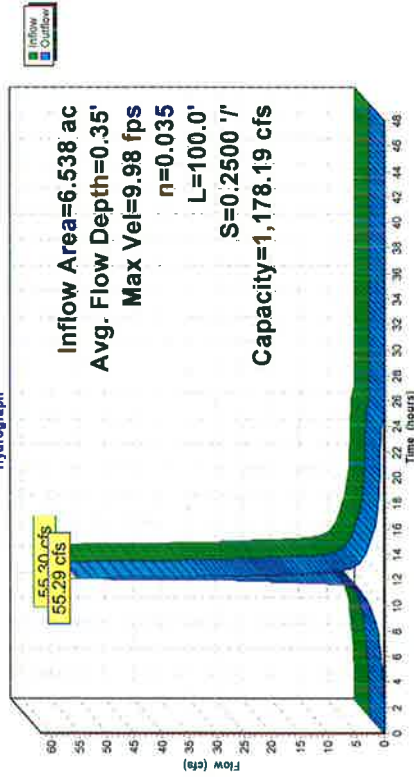
Peak Storage = 554 cf @ 12.12 hrs
 Average Depth at Peak Storage = 0.35'
 Bank-Full Depth = 2.00' Flow Area = 42.0 sf, Capacity = 1,178.19 cfs

15.00' x 2.00' deep channel, n = 0.035
 Side Slope Z-value = 3.0' Top Width = 27.00'
 Length = 100.0' Slope = 0.2500 '
 Inlet Invert = 583.00', Outlet Invert = 558.00'



Reach DF3: DF3

Hydrograph



Summary for Reach DG1: DG1

Inflow Area = 3.276 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 29.35 cfs @ 12.11 hrs, Volume = 2,377 af
 Outflow = 29.36 cfs @ 12.11 hrs, Volume = 2,377 af, Atten = 0%, Lag = 0.3 min

Routing by Stor-Ind method, Time Span = 0.00-48.00 hrs, dt = 0.01 hrs
 Max. Velocity = 7.88 fps, Min. Travel Time = 0.4 min
 Avg. Velocity = 2.04 fps, Avg. Travel Time = 1.6 min

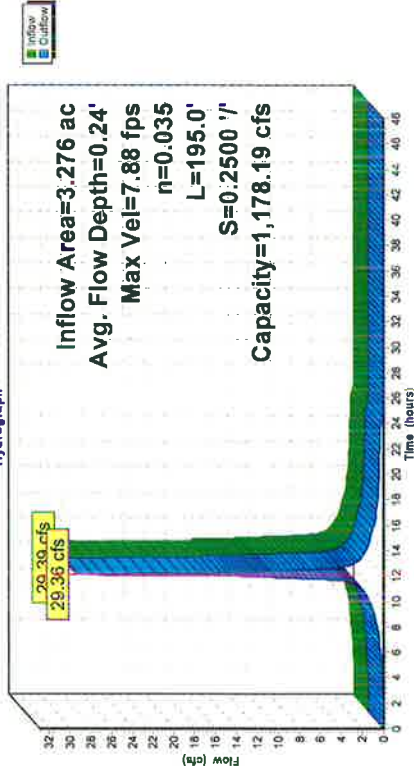
Peak Storage = 727 cf @ 12.11 hrs
 Average Depth at Peak Storage = 0.24'
 Bank-Full Depth = 2.00' Flow Area = 42.0 sf, Capacity = 1,178.19 cfs

15.00' x 2.00' deep channel, n = 0.035
 Side Slope Z-value = 3.0' Top Width = 27.00'
 Length = 195.0' Slope = 0.2500 '
 Inlet Invert = 662.00', Outlet Invert = 613.25'



Reach DG1: DG1

Hydrograph



Summary for Reach DG2: DG2

Inflow Area = 7.264 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 66.03 cfs @ 12.10 hrs, Volume = 5,270 af
 Outflow = 65.99 cfs @ 12.10 hrs, Volume = 5,270 af, Atten = 0%, Lag = 0.2 min

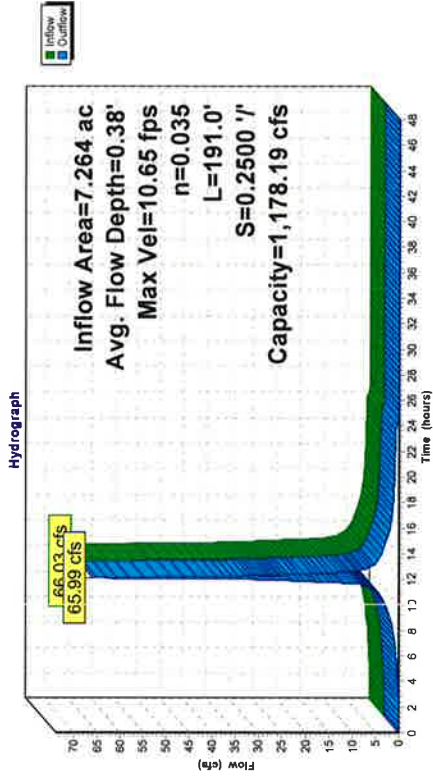
Routing by Stor-Ind method, Time Span = 0.00-48.00 hrs, dt = 0.01 hrs
 Max. Velocity = 10.65 fps, Min. Travel Time = 0.3 min
 Avg. Velocity = 2.59 fps, Avg. Travel Time = 1.2 min

Peak Storage = 1,183 cf @ 12.10 hrs
 Average Depth at Peak Storage = 0.38'
 Bank-Full Depth = 2.00' Flow Area = 42.0 sf, Capacity = 1,178.19 cfs

15.00' x 2.00' deep channel, n = 0.035
 Side Slope Z-value = 3.0 : 1 Top Width = 27.00'
 Length = 191.0' Slope = 0.2500 : 1
 Inlet Invert = 613.25', Outlet Invert = 565.50'



Reach DG2: DG2



Summary for Reach DH1: DH1

Inflow Area = 2.425 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 21.67 cfs @ 12.11 hrs, Volume = 1,759 af
 Outflow = 21.63 cfs @ 12.12 hrs, Volume = 1,759 af, Atten = 0%, Lag = 0.3 min

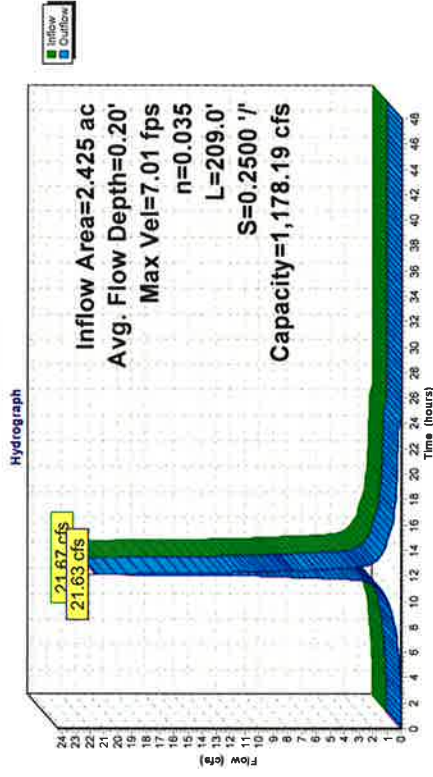
Routing by Stor-Ind method, Time Span = 0.00-48.00 hrs, dt = 0.01 hrs
 Max. Velocity = 7.01 fps, Min. Travel Time = 0.5 min
 Avg. Velocity = 1.92 fps, Avg. Travel Time = 1.8 min

Peak Storage = 645 cf @ 12.12 hrs
 Average Depth at Peak Storage = 0.20'
 Bank-Full Depth = 2.00' Flow Area = 42.0 sf, Capacity = 1,178.19 cfs

15.00' x 2.00' deep channel, n = 0.035
 Side Slope Z-value = 3.0 : 1 Top Width = 27.00'
 Length = 209.0' Slope = 0.2500 : 1
 Inlet Invert = 666.75', Outlet Invert = 614.50'



Reach DH1: DH1



Summary for Reach DH2: DH2

Inflow Area = 5.669 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 51.28 cfs @ 12.10 hrs, Volume = 4.113 af
 Outflow = 51.24 cfs @ 12.11 hrs, Volume = 4.113 af, Atten= 0%, Lag= 0.2 min

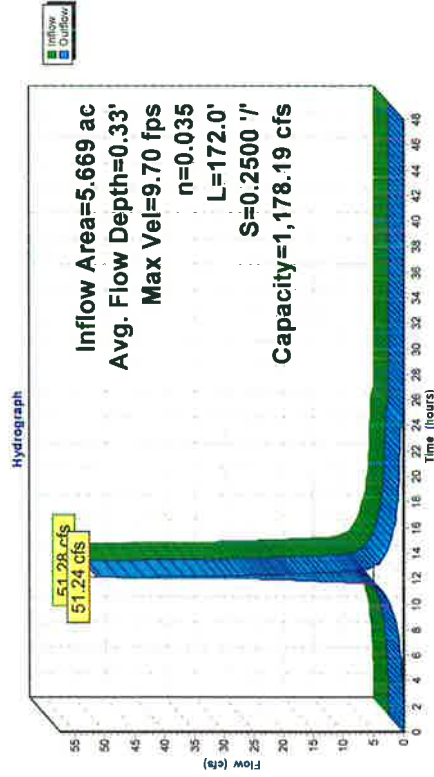
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 9.70 fps, Min. Travel Time= 0.3 min
 Avg. Velocity = 2.40 fps, Avg. Travel Time= 1.2 min

Peak Storage= 908 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.33'
 Bank-Full Depth= 2.00' Flow Area= 42.0 sf, Capacity= 1,178.19 cfs

15.00' x 2.00' deep channel, n= 0.035
 Side Slope Z-value= 3.0 ' Top Width= 27.00'
 Length= 172.0' Slope= 0.2500 ' / '
 Inlet Invert= 614.50', Outlet Invert= 571.50'



Reach DH2: DH2



Summary for Reach PCA1: PCA1

Inflow Area = 3.010 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 29.36 cfs @ 12.07 hrs, Volume = 2.184 af
 Outflow = 25.89 cfs @ 12.11 hrs, Volume = 2.184 af, Atten= 12%, Lag= 2.4 min

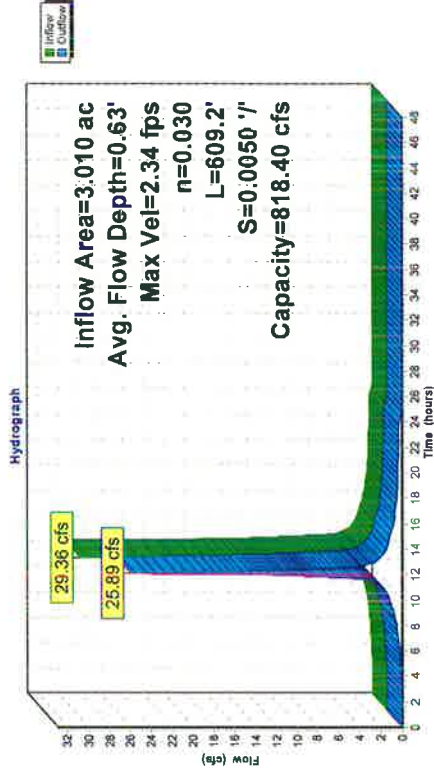
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.34 fps, Min. Travel Time= 4.3 min
 Avg. Velocity = 0.61 fps, Avg. Travel Time= 16.8 min

Peak Storage= 6,726 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.63'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 818.40 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 ' Top Width= 47.00'
 Length= 609.2' Slope= 0.0050 ' / '
 Inlet Invert= 575.60', Outlet Invert= 572.55'



Reach PCA1: PCA1



Summary for Reach PCA2: PCA2

Inflow Area = 10.554 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 94.02 cfs @ 12.09 hrs, Volume= 7.657 af
 Outflow = 86.30 cfs @ 12.13 hrs, Volume= 7.657 af, Atten= 6%, Lag= 1.9 min

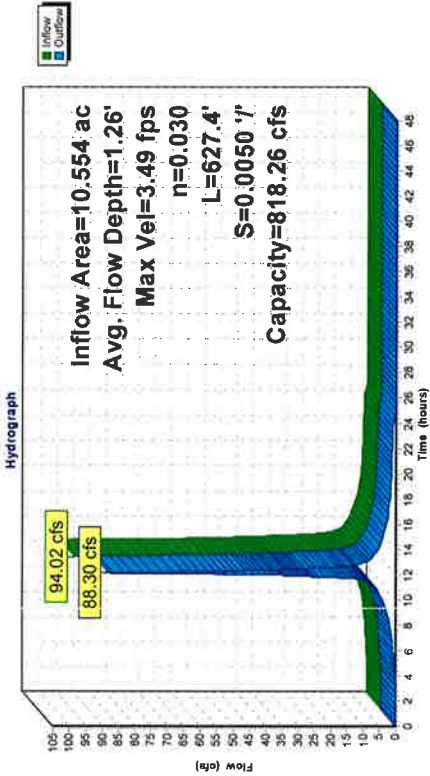
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.49 fps, Min. Travel Time= 3.0 min
 Avg. Velocity = 0.89 fps, Avg. Travel Time= 11.8 min

Peak Storage= 15.858 cf @ 12.13 hrs
 Average Depth at Peak Storage= 1.26'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 818.26 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0:1' Top Width= 47.00'
 Length= 627.4' Slope= 0.0050 1'
 Inlet Invert= 572.55', Outlet Invert= 569.41'



Reach PCA2: PCA2



Summary for Reach PCB1: PCB1

Inflow Area = 13.772 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 114.44 cfs @ 12.11 hrs, Volume= 9.991 af
 Outflow = 109.59 cfs @ 12.14 hrs, Volume= 9.991 af, Atten= 4%, Lag= 1.8 min

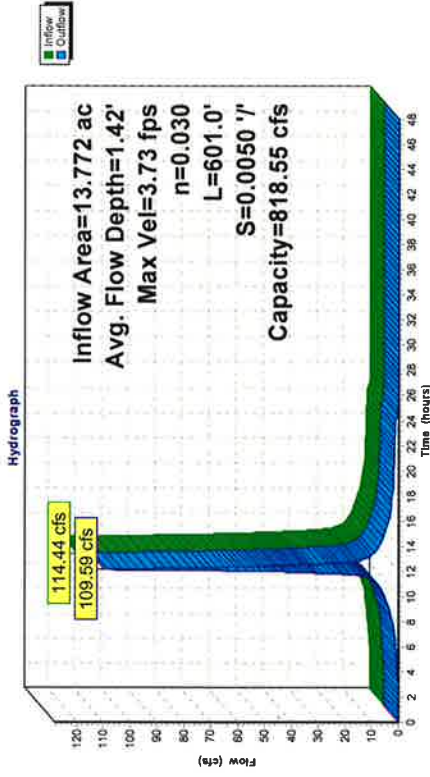
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.73 fps, Min. Travel Time= 2.7 min
 Avg. Velocity = 0.95 fps, Avg. Travel Time= 10.5 min

Peak Storage= 17.641 cf @ 12.14 hrs
 Average Depth at Peak Storage= 1.42'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 818.55 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0:1' Top Width= 47.00'
 Length= 601.0' Slope= 0.0050 1'
 Inlet Invert= 569.41', Outlet Invert= 566.40'



Reach PCB1: PCB1



Summary for Reach PCB2: PCB2

Inflow Area = 21.383 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 173.60 cfs @ 12.12 hrs, Volume= 15.513 af
 Outflow = 171.34 cfs @ 12.14 hrs, Volume= 15.513 af

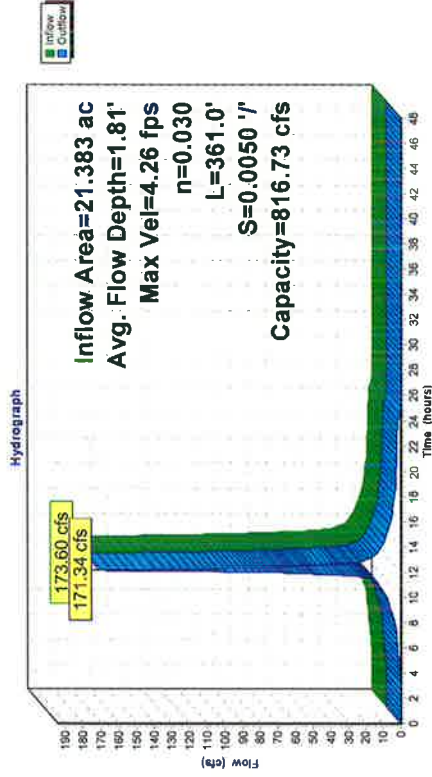
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.26 fps, Min. Travel Time= 1.4 min
 Avg. Velocity = 1.09 fps, Avg. Travel Time= 5.5 min

Peak Storage= 14.518 cf @ 12.14 hrs
 Average Depth at Peak Storage= 1.81'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 816.73 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.07 Top Width= 47.00'
 Length= 361.0' Slope= 0.00507'
 Inlet Invert= 566.40', Outlet Invert= 564.60'



Reach PCB2: PCB2



Summary for Reach PCC1: PCC1

Inflow Area = 24.816 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 198.96 cfs @ 12.13 hrs, Volume= 18.003 af
 Outflow = 193.61 cfs @ 12.15 hrs, Volume= 18.003 af

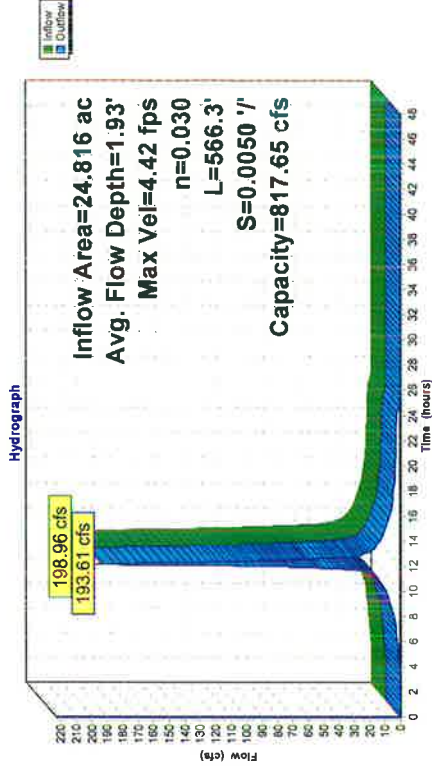
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.42 fps, Min. Travel Time= 2.1 min
 Avg. Velocity = 1.13 fps, Avg. Travel Time= 8.4 min

Peak Storage= 24.811 cf @ 12.15 hrs
 Average Depth at Peak Storage= 1.93'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 817.65 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.07 Top Width= 47.00'
 Length= 566.3' Slope= 0.00507'
 Inlet Invert= 564.60', Outlet Invert= 561.77'



Reach PCC1: PCC1



Summary for Reach PCC2: PCC2

Inflow Area = 36.256 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 283.94 cfs @ 12.13 hrs, Volume= 26,331 af
 Outflow = 279.01 cfs @ 12.15 hrs, Volume= 26,331 af, Atten= 2%, Lag= 1.3 min

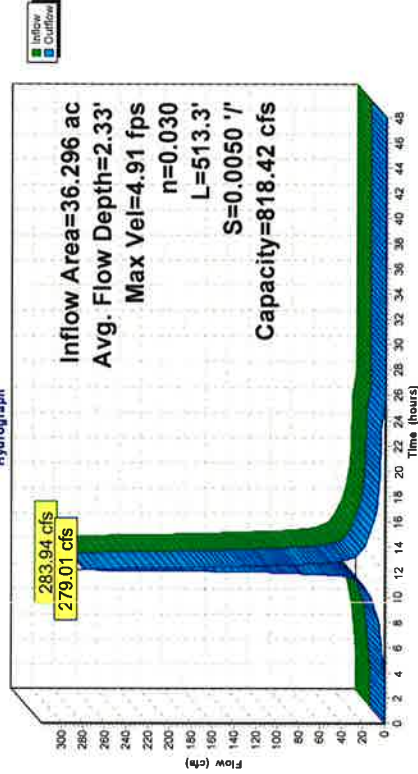
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.91 fps, Min. Travel Time= 1.7 min
 Avg. Velocity = 1.26 fps, Avg. Travel Time= 6.8 min

Peak Storage= 29,160 cf @ 12.15 hrs
 Average Depth at Peak Storage= 2.33'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 818.42 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 : 1 Top Width= 47.00'
 Length= 513.3' Slope= 0.0050 : 1
 Inlet Invert= 561.77', Outlet Invert= 559.20'



Reach PCC2: PCC2



Summary for Reach PCD1: PCD1

Inflow Area = 38.762 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 292.86 cfs @ 12.14 hrs, Volume= 28,120 af
 Outflow = 288.43 cfs @ 12.17 hrs, Volume= 28,120 af, Atten= 2%, Lag= 1.3 min

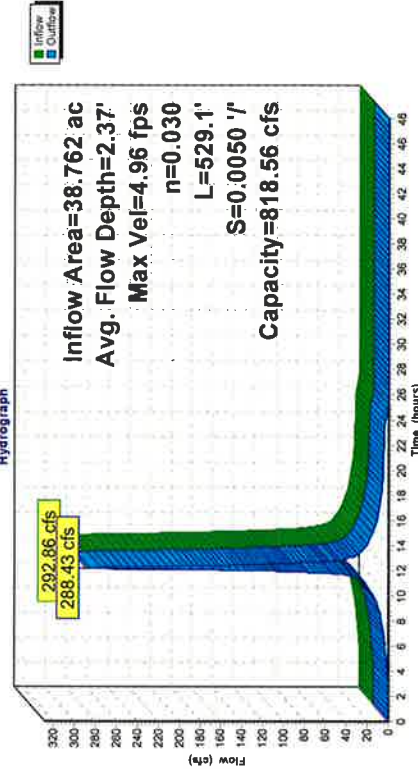
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.96 fps, Min. Travel Time= 1.8 min
 Avg. Velocity = 1.27 fps, Avg. Travel Time= 6.9 min

Peak Storage= 30,778 cf @ 12.17 hrs
 Average Depth at Peak Storage= 2.37'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 818.56 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 : 1 Top Width= 47.00'
 Length= 529.1' Slope= 0.0050 : 1
 Inlet Invert= 559.20', Outlet Invert= 556.55'



Reach PCD1: PCD1



Summary for Reach PCD2: PCD2

Inflow Area = 49.001 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 362.92 cfs @ 12.15 hrs, Volume= 35.548 af
 Outflow = 355.07 cfs @ 12.18 hrs, Volume= 35.548 af, Atten= 2%, Lag= 1.7 min

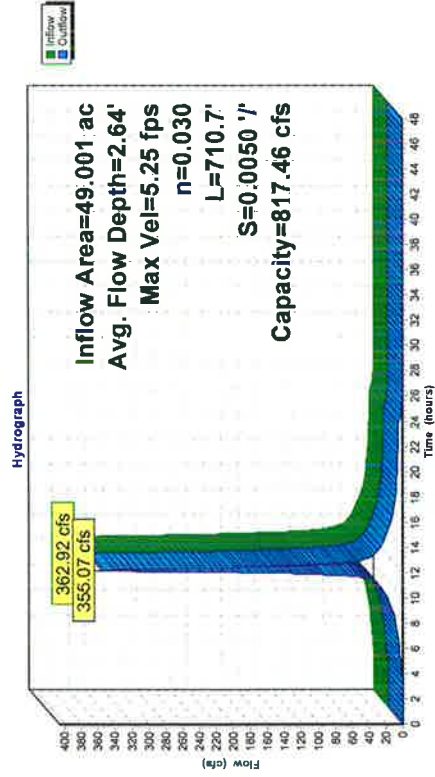
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.25 fps, Min. Travel Time= 2.3 min
 Avg. Velocity = 1.34 fps, Avg. Travel Time= 8.8 min

Peak Storage= 48,052 cf @ 12.18 hrs
 Average Depth at Peak Storage= 2.64'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 817.46 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0' Top Width= 47.00'
 Length= 710.7' Slope= 0.0050 '/
 Inlet Invert= 556.55', Outlet Invert= 553.00'



Reach PCD2: PCD2



Summary for Reach PCE1: PCE1

Inflow Area = 2.657 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 25.73 cfs @ 12.07 hrs, Volume= 1.928 af
 Outflow = 22.77 cfs @ 12.11 hrs, Volume= 1.928 af, Atten= 12%, Lag= 2.4 min

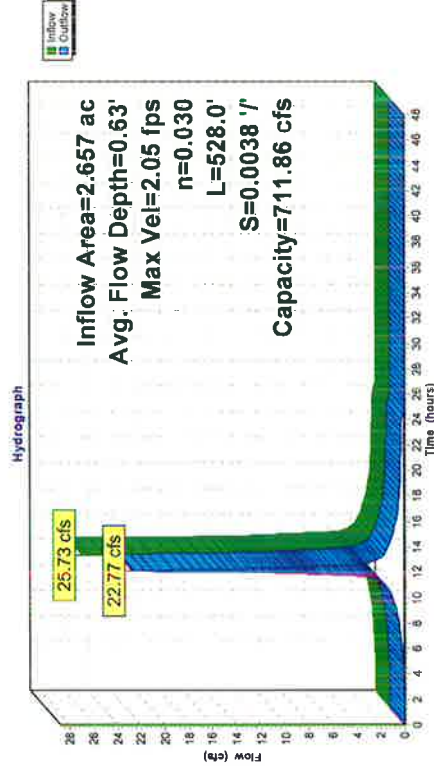
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.05 fps, Min. Travel Time= 4.3 min
 Avg. Velocity = 0.53 fps, Avg. Travel Time= 16.6 min

Peak Storage= 5,874 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.63'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 711.86 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0' Top Width= 47.00'
 Length= 528.0' Slope= 0.0038 '/
 Inlet Invert= 555.00', Outlet Invert= 553.00'



Reach PCE1: PCE1



Summary for Reach PCE2: PCE2

Inflow Area = 1.925 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 16.45 cfs @ 12.13 hrs, Volume= 1.397 af
 Outflow = 14.73 cfs @ 12.18 hrs, Volume= 1.397 af, Atten= 10%, Lag= 2.9 min

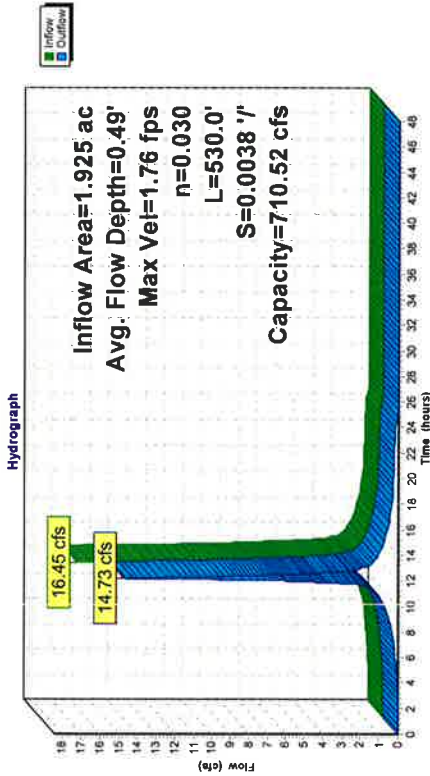
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 1.76 fps, Min. Travel Time= 5.0 min
 Avg. Velocity = 0.48 fps, Avg. Travel Time= 18.4 min

Peak Storage= 4.438 cf @ 12.18 hrs
 Average Depth at Peak Storage= 0.49'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 710.52 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 : 1 Top Width= 47.00'
 Length= 530.0' Slope= 0.0038 : 1
 Inlet Invert= 555.00', Outlet Invert= 553.00'



Reach PCE2: PCE2



Summary for Reach PCF1: PCF1

Inflow Area = 25.963 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 215.59 cfs @ 12.12 hrs, Volume= 18.835 af
 Outflow = 211.36 cfs @ 12.14 hrs, Volume= 18.835 af, Atten= 2%, Lag= 1.2 min

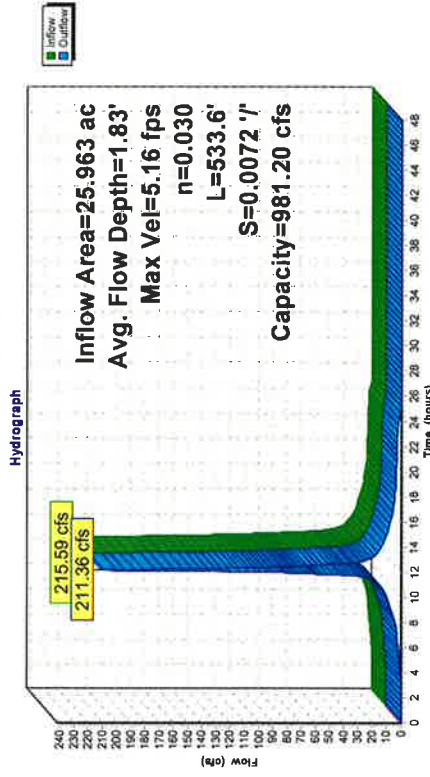
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.16 fps, Min. Travel Time= 1.7 min
 Avg. Velocity = 1.35 fps, Avg. Travel Time= 6.6 min

Peak Storage= 21.864 cf @ 12.14 hrs
 Average Depth at Peak Storage= 1.83'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 981.20 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 : 1 Top Width= 47.00'
 Length= 533.6' Slope= 0.0072 : 1
 Inlet Invert= 561.95', Outlet Invert= 558.11'



Reach PCF1: PCF1



Summary for Reach PCF2: PCF2

Inflow Area = 36.426 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 294.95 cfs @ 12.13 hrs, Volume= 26.426 af
 Outflow = 287.43 cfs @ 12.16 hrs, Volume= 26.426 af, Atten= 3%, Lag= 1.5 min

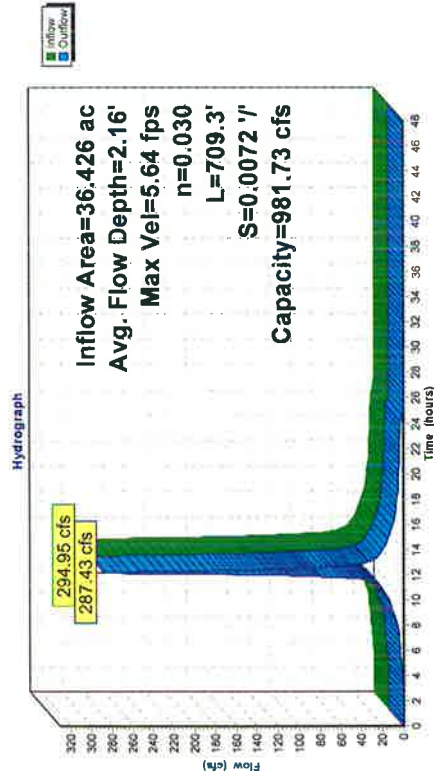
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.64 fps, Min. Travel Time= 2.1 min
 Avg. Velocity = 1.48 fps, Avg. Travel Time= 6.0 min

Peak Storage= 36,141 cf @ 12.16 hrs
 Average Depth at Peak Storage= 2.16'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 981.73 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 ' Top Width= 47.00'
 Length= 709.3' Slope= 0.0072 ' /'
 Inlet Invert= 558.11', Outlet Invert= 553.00'



Reach PCF2: PCF2



Summary for Reach PCG1: PCG1

Inflow Area = 13.631 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 119.15 cfs @ 12.10 hrs, Volume= 9.889 af
 Outflow = 116.25 cfs @ 12.12 hrs, Volume= 9.889 af, Atten= 2%, Lag= 1.2 min

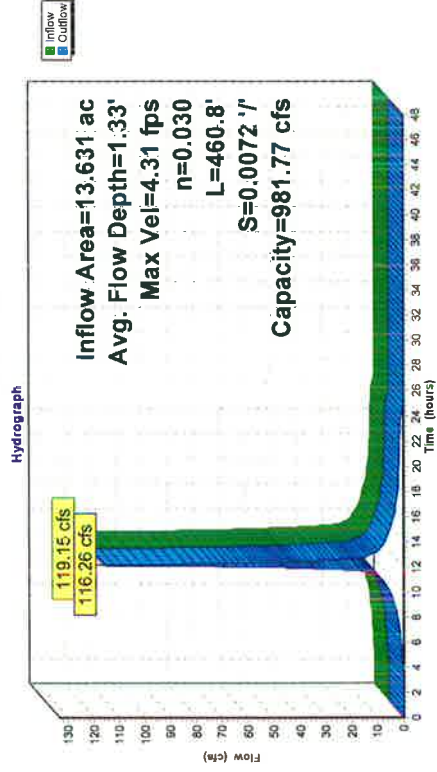
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.31 fps, Min. Travel Time= 1.8 min
 Avg. Velocity = 1.11 fps, Avg. Travel Time= 6.9 min

Peak Storage= 12,421 cf @ 12.12 hrs
 Average Depth at Peak Storage= 1.33'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 981.77 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0 ' Top Width= 47.00'
 Length= 466.8' Slope= 0.0072 ' /'
 Inlet Invert= 568.63', Outlet Invert= 565.31'



Reach PCG1: PCG1



Summary for Reach PCG2: PCG2

Inflow Area = 23.878 ac, 0.00% impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 206.77 cfs @ 12.11 hrs, Volume= 17,323 af
 Outflow = 202.96 cfs @ 12.13 hrs, Volume= 17,323 af, Atten= 2%, Lag= 1.1 min

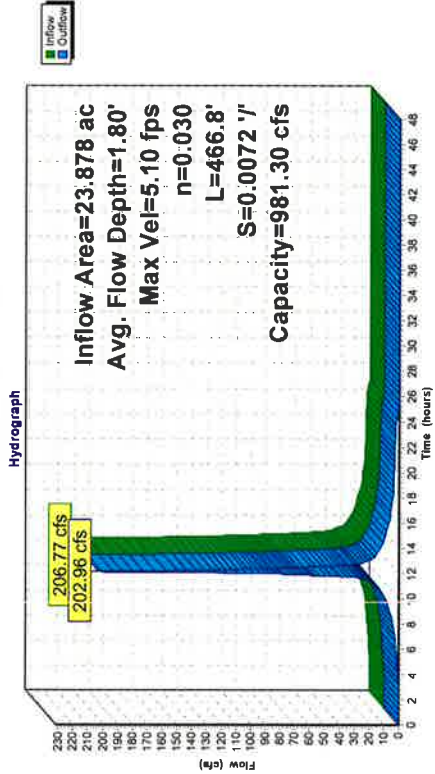
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 5.10 fps, Min. Travel Time= 1.5 min
 Avg. Velocity = 1.33 fps, Avg. Travel Time= 5.8 min

Peak Storage= 18,585 c' @ 12.13 hrs
 Average Depth at Peak Storage= 1.80'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 981.30 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0:1 Top Width= 47.00'
 Length= 466.8' Slope= 0.0072:1
 Inlet Invert= 565.31', Outlet Invert= 561.95'



Reach PCG2: PCG2



Summary for Reach PCH1: PCH1

Inflow Area = 3.045 ac, 0.00% impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 29.80 cfs @ 12.07 hrs, Volume= 2,209 af
 Outflow = 26.85 cfs @ 12.10 hrs, Volume= 2,209 af, Atten= 10%, Lag= 2.1 min

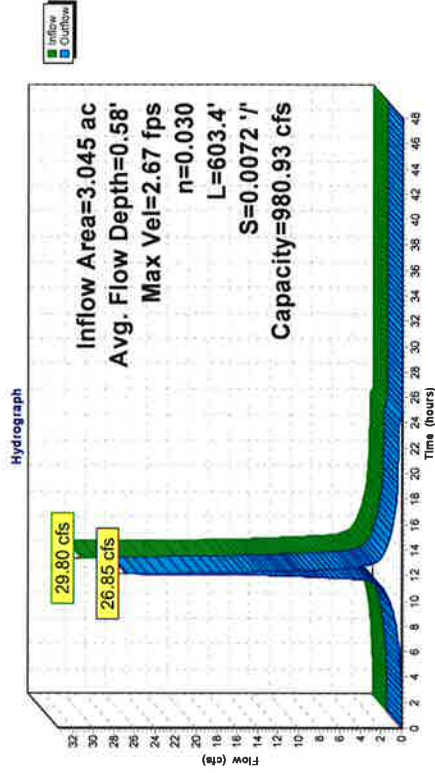
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.67 fps, Min. Travel Time= 3.8 min
 Avg. Velocity = 0.89 fps, Avg. Travel Time= 14.5 min

Peak Storage= 6,058 c' @ 12.10 hrs
 Average Depth at Peak Storage= 0.58'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 980.93 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0:1 Top Width= 47.00'
 Length= 603.4' Slope= 0.0072:1
 Inlet Invert= 575.60', Outlet Invert= 571.26'



Reach PCH1: PCH1



Summary for Reach PCH2: PCH2

Inflow Area = 10,852 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 97.15 cfs @ 12.10 hrs, Volume = 7,873 af
 Outflow = 95.30 cfs @ 12.11 hrs, Volume = 7,873 af, Atten= 2%, Lag= 1.1 min

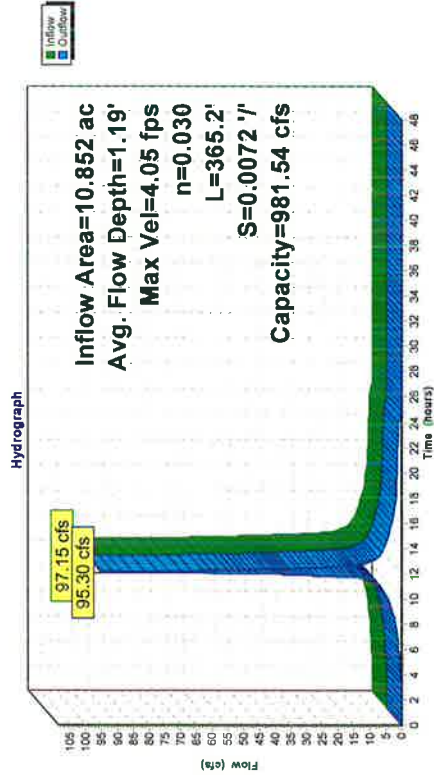
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.05 fps, Min. Travel Time= 1.5 min
 Avg. Velocity = 1.04 fps, Avg. Travel Time= 5.8 min

Peak Storage= 8,583 cf @ 12.11 hrs
 Average Depth at Peak Storage= 1.19'
 Bank-Full Depth= 4.00' Flow Area= 124.0 sf, Capacity= 981.54 cfs

15.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 4.0' Top Width= 47.00'
 Length= 365.2' Slope= 0.0072 '
 Inlet Invert= 571.26', Outlet Invert= 568.63'



Reach PCH2: PCH2



Summary for Reach TBA1: TBA1

Inflow Area = 0.591 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 5.38 cfs @ 12.09 hrs, Volume = 0.429 af
 Outflow = 5.29 cfs @ 12.11 hrs, Volume = 0.429 af, Atten= 2%, Lag= 0.9 min

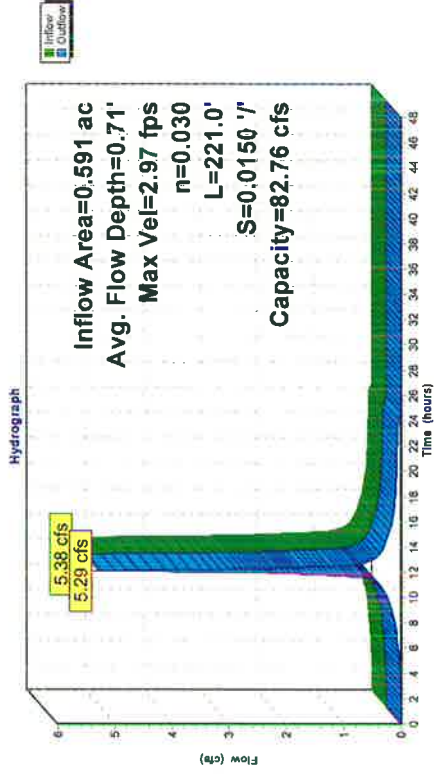
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.97 fps, Min. Travel Time= 1.2 min
 Avg. Velocity = 1.13 fps, Avg. Travel Time= 3.3 min

Peak Storage= 393 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.71'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.76 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0' Top Width= 14.00'
 Length= 221.0' Slope= 0.0150 '
 Inlet Invert= 670.00', Outlet Invert= 666.68'



Reach TBA1: TBA1



Summary for Reach TBA2: TBA2

Inflow Area = 0.567 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 5.34 cfs @ 12.09 hrs, Volume= 0.426 af
 Outflow = 5.25 cfs @ 12.11 hrs, Volume= 0.426 af, Atten= 2%, Lag= 0.9 min

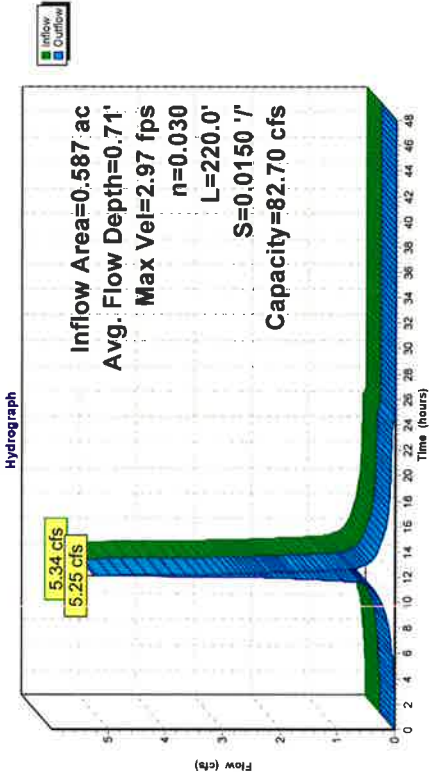
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.97 fps, Min. Travel Time= 1.2 min
 Avg. Velocity = 1.12 fps, Avg. Travel Time= 3.3 min

Peak Storage= 390 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.71'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 220.0' Slope= 0.0150 ' / '
 Inlet Invert= 670.00', Outlet Invert= 666.70'



Reach TBA2: TBA2



Summary for Reach TBA3: TBA3

Inflow Area = 1.595 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 15.23 cfs @ 12.08 hrs, Volume= 1.157 af
 Outflow = 14.63 cfs @ 12.10 hrs, Volume= 1.157 af, Atten= 4%, Lag= 1.4 min

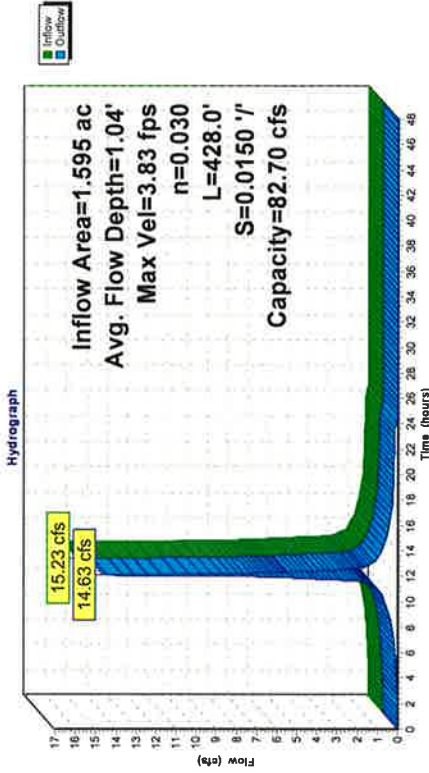
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.83 fps, Min. Travel Time= 1.9 min
 Avg. Velocity = 1.39 fps, Avg. Travel Time= 5.1 min

Peak Storage= 1.635 cf @ 12.10 hrs
 Average Depth at Peak Storage= 1.04'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 428.0' Slope= 0.0150 ' / '
 Inlet Invert= 620.00', Outlet Invert= 613.58'



Reach TBA3: TBA3



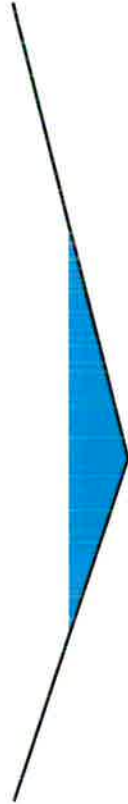
Summary for Reach TBA4: TBA4

Inflow Area = 1.576 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 15.05 cfs @ 12.08 hrs, Volume= 1,143 af
 Outflow = 14.46 cfs @ 12.10 hrs, Volume= 1,143 af, Atten= 4%, Lag= 1.3 min

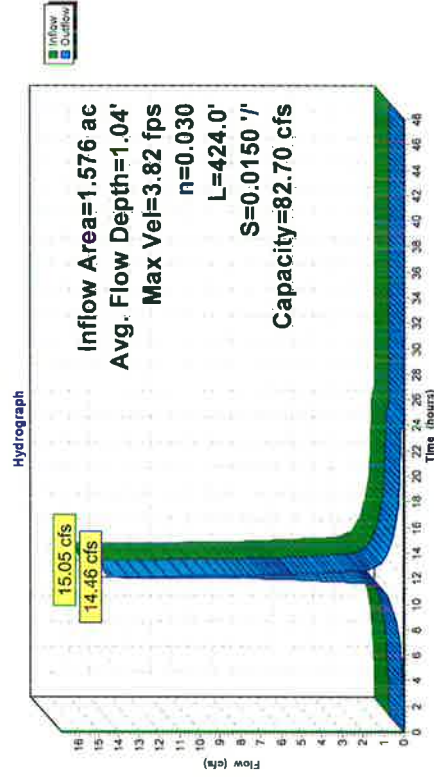
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.82 fps, Min. Travel Time= 1.9 min
 Avg. Velocity = 1.39 fps, Avg. Travel Time= 5.1 min

Peak Storage= 1,605 cf @ 12.10 hrs
 Average Depth at Peak Storage= 1.04'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 424.0' Slope= 0.0150 '/'
 Inlet Invert= 620.00', Outlet Invert= 613.64'



Reach TBA4: TBA4



Summary for Reach TBB1: TBB1

Inflow Area = 0.513 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 4.75 cfs @ 12.09 hrs, Volume= 0.372 af
 Outflow = 4.67 cfs @ 12.10 hrs, Volume= 0.372 af, Atten= 2%, Lag= 0.9 min

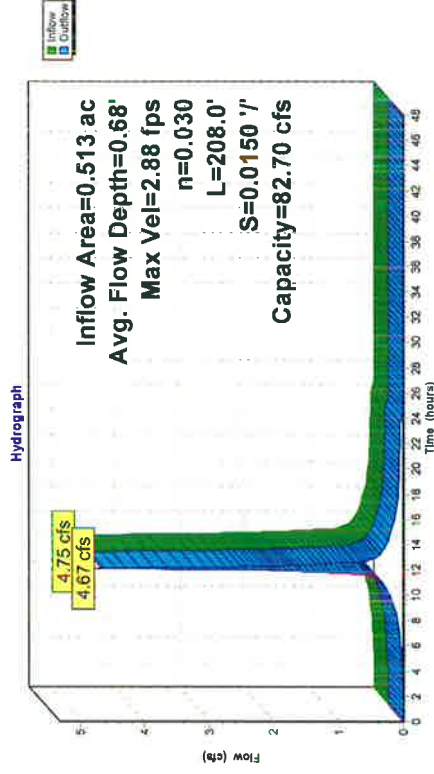
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.88 fps, Min. Travel Time= 1.2 min
 Avg. Velocity = 1.09 fps, Avg. Travel Time= 3.2 min

Peak Storage= 337 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.68'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 208.0' Slope= 0.0150 '/'
 Inlet Invert= 670.00', Outlet Invert= 666.88'



Reach TBB1: TBB1



Summary for Reach TBB2: TBB2

Inflow Area = 1.762 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 15.82 cfs @ 12.10 hrs, Volume= 1,278 af
 Outflow = 15.44 cfs @ 12.12 hrs, Volume= 1,278 af, Atten= 2%, Lag= 1.2 min

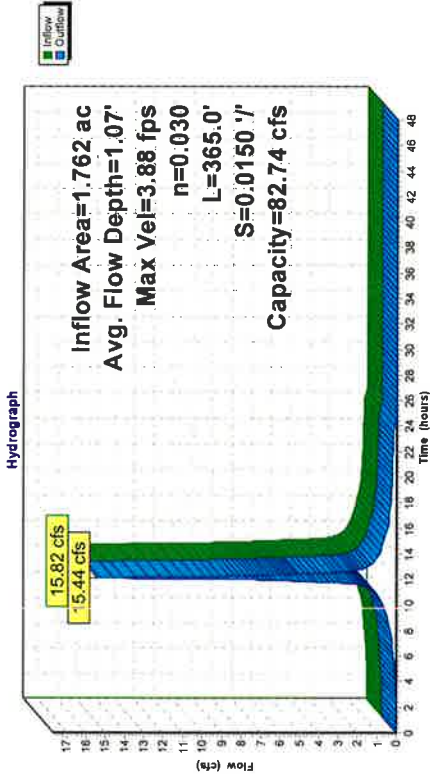
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.88 fps, Min. Travel Time= 1.6 min
 Avg. Velocity = 1.44 fps, Avg. Travel Time= 4.2 min

Peak Storage= 1,451 cf @ 12.12 hrs
 Average Depth at Peak Storage= 1.07'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.74 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0' 4.0' Top Width= 14.00'
 Length= 365.0' Slope= 0.0150 '/'
 Inlet Invert= 670.00', Outlet Invert= 664.52'



Reach TBB2: TBB2



Summary for Reach TBB3: TBB3

Inflow Area = 1.401 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 13.38 cfs @ 12.08 hrs, Volume= 1,016 af
 Outflow = 12.88 cfs @ 12.10 hrs, Volume= 1,016 af, Atten= 4%, Lag= 1.3 min

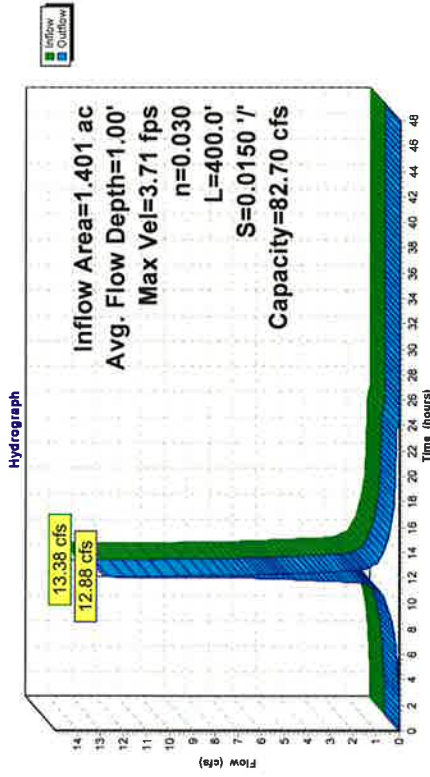
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.71 fps, Min. Travel Time= 1.8 min
 Avg. Velocity = 1.35 fps, Avg. Travel Time= 4.9 min

Peak Storage= 1,388 cf @ 12.10 hrs
 Average Depth at Peak Storage= 1.00'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0' 4.0' Top Width= 14.00'
 Length= 400.0' Slope= 0.0150 '/'
 Inlet Invert= 620.00', Outlet Invert= 614.00'



Reach TBB3: TBB3



Summary for Reach TBB4: TBB4

Inflow Area = 1.674 ac, 0.00% impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 16.21 cfs @ 12.07 hrs, Volume= 1.214 af
 Outflow = 15.71 cfs @ 12.09 hrs, Volume= 1.214 af

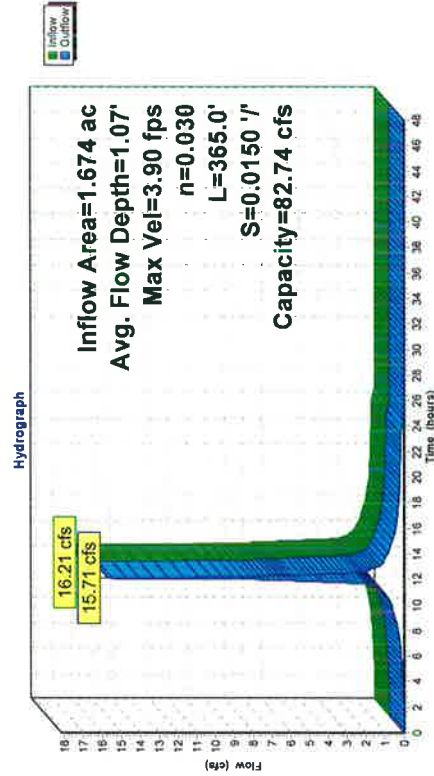
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.90 fps, Min. Travel Time= 1.6 min
 Avg. Velocity = 1.42 fps, Avg. Travel Time= 4.3 min

Peak Storage= 1.470 cf @ 12.09 hrs
 Average Depth at Peak Storage= 1.07'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.74 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 365.0' Slope= 0.0150 ' / '
 Inlet Invert= 620.00', Outlet Invert= 614.52'



Reach TBB4: TBB4



Summary for Reach TBC1: TBC1

Inflow Area = 1.698 ac, 0.00% impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 15.65 cfs @ 12.09 hrs, Volume= 1.232 af
 Outflow = 15.15 cfs @ 12.11 hrs, Volume= 1.232 af

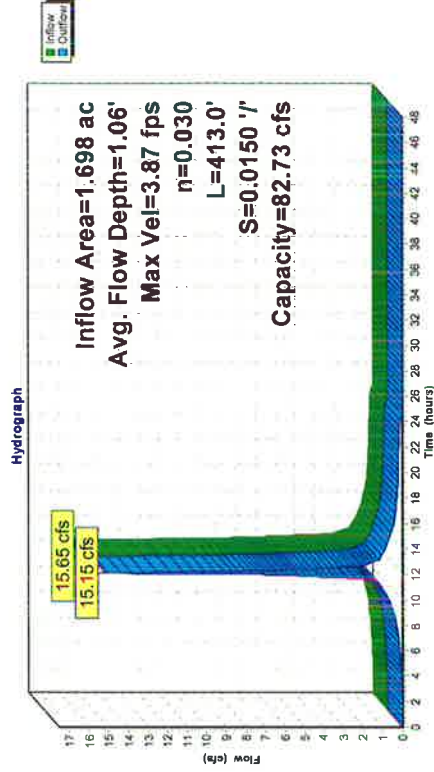
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.87 fps, Min. Travel Time= 1.8 min
 Avg. Velocity = 1.42 fps, Avg. Travel Time= 4.9 min

Peak Storage= 1.619 cf @ 12.11 hrs
 Average Depth at Peak Storage= 1.06'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.73 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 413.0' Slope= 0.0150 ' / '
 Inlet Invert= 670.00', Outlet Invert= 663.80'



Reach TBC1: TBC1



Summary for Reach TBC2: TBC2

Inflow Area = 1.053 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 10.31 cfs @ 12.07 hrs, Volume= 0.764 af
 Outflow = 9.60 cfs @ 12.10 hrs, Volume= 0.764 af, Atten= 7%, Lag= 1.7 min

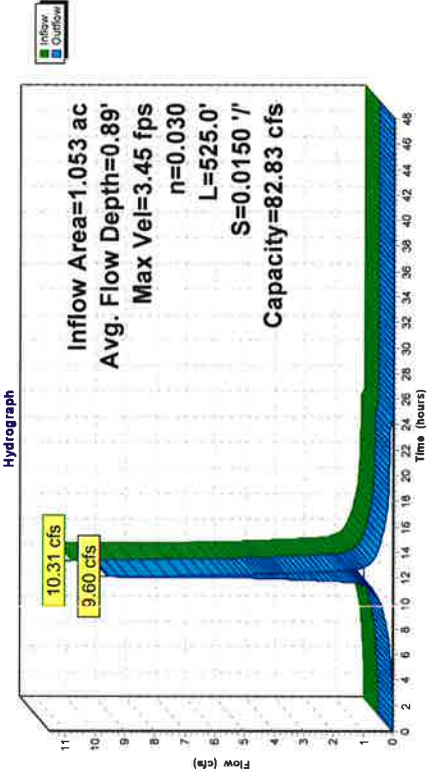
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.45 fps, Min. Travel Time= 2.5 min
 Avg. Velocity = 1.24 fps, Avg. Travel Time= 7.0 min

Peak Storage= 1,460 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.89'
 Bank-Full Depth= 2.00', Flow Area= 14.0 sf, Capacity= 82.83 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 7' Top Width= 14.00'
 Length= 525.0' Slope= 0.0150 7'
 Inlet Invert= 680.00', Outlet Invert= 672.10'



Reach TBC2: TBC2



Summary for Reach TBC3: TBC3

Inflow Area = 2.026 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 19.55 cfs @ 12.07 hrs, Volume= 1.470 af
 Outflow = 18.64 cfs @ 12.10 hrs, Volume= 1.470 af, Atten= 5%, Lag= 1.4 min

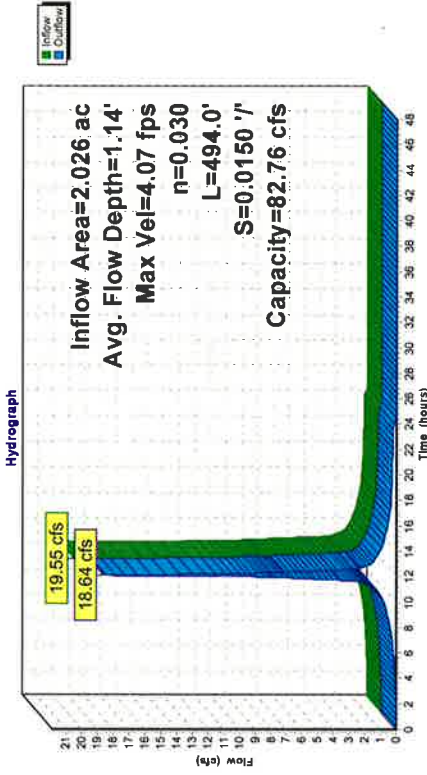
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.07 fps, Min. Travel Time= 2.0 min
 Avg. Velocity = 1.46 fps, Avg. Travel Time= 5.6 min

Peak Storage= 2,261 cf @ 12.10 hrs
 Average Depth at Peak Storage= 1.14'
 Bank-Full Depth= 2.00', Flow Area= 14.0 sf, Capacity= 82.76 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 7' Top Width= 14.00'
 Length= 494.0' Slope= 0.0150 7'
 Inlet Invert= 620.00', Outlet Invert= 612.58'



Reach TBC3: TBC3



Summary for Reach TBC4: TBC4

Inflow Area = 2.027 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 20.13 cfs @ 12.06 hrs, Volume= 1.471 af
 Outflow = 18.77 cfs @ 12.09 hrs, Volume= 1.471 af, Atten= 7%, Lag= 1.7 min

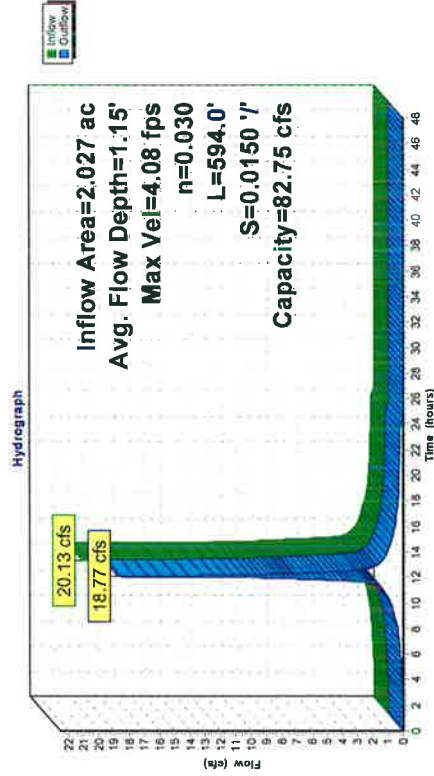
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.08 fps, Min. Travel Time= 2.4 min
 Avg. Velocity = 1.44 fps, Avg. Travel Time= 6.9 min

Peak Storage= 2,734 cf @ 12.09 hrs
 Average Depth at Peak Storage= 1.15'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.75 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 594.0' Slope= 0.0150 ' / '
 Inlet Invert= 644.00', Outlet Invert= 635.08'



Reach TBC4: TBC4



Summary for Reach TBC6: TBC6

Inflow Area = 1.897 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 19.04 cfs @ 12.06 hrs, Volume= 1.376 af
 Outflow = 17.79 cfs @ 12.08 hrs, Volume= 1.376 af, Atten= 7%, Lag= 1.6 min

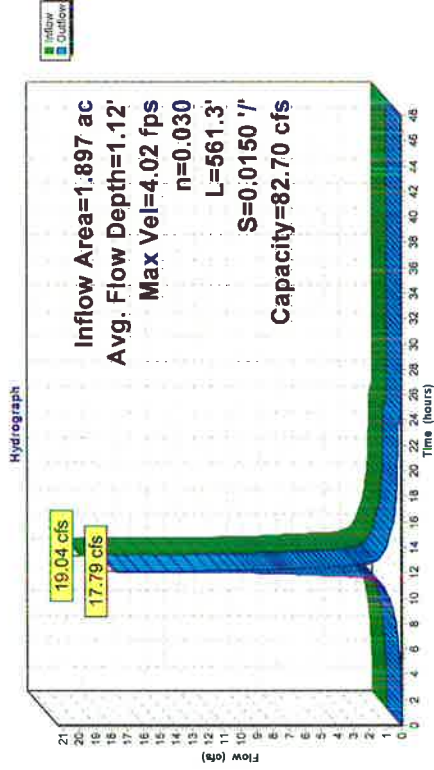
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.02 fps, Min. Travel Time= 2.3 min
 Avg. Velocity = 1.42 fps, Avg. Travel Time= 6.6 min

Peak Storage= 2,482 cf @ 12.08 hrs
 Average Depth at Peak Storage= 1.12'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 561.3' Slope= 0.0150 ' / '
 Inlet Invert= 606.00', Outlet Invert= 597.58'



Reach TBC6: TBC6



Summary for Reach TBD1: TBD1

Inflow Area = 2.445 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 21.86 cfs @ 12.10 hrs, Volume= 1,774 af
 Outflow = 20.96 cfs @ 12.13 hrs, Volume= 1,774 af, Atten= 4%, Lag= 1.6 min

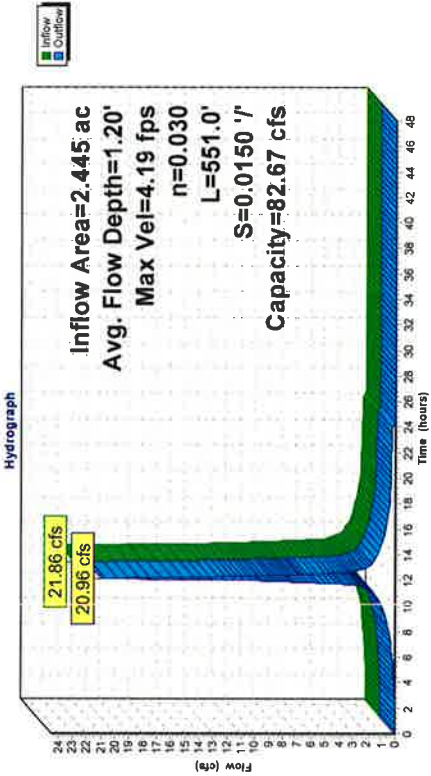
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.19 fps, Min. Travel Time= 2.2 min
 Avg. Velocity = 1.51 fps, Avg. Travel Time= 6.1 min

Peak Storage= 2,756 cf @ 12.13 hrs
 Average Depth at Peak Storage= 1.20'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.67 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 551.0' Slope= 0.0150 ' / '
 Inlet Invert= 630.00', Outlet Invert= 621.74'



Reach TBD1: TBD1



Summary for Reach TBD2: TBD2

Inflow Area = 2.373 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 20.95 cfs @ 12.11 hrs, Volume= 1,722 af
 Outflow = 20.23 cfs @ 12.13 hrs, Volume= 1,722 af, Atten= 3%, Lag= 1.4 min

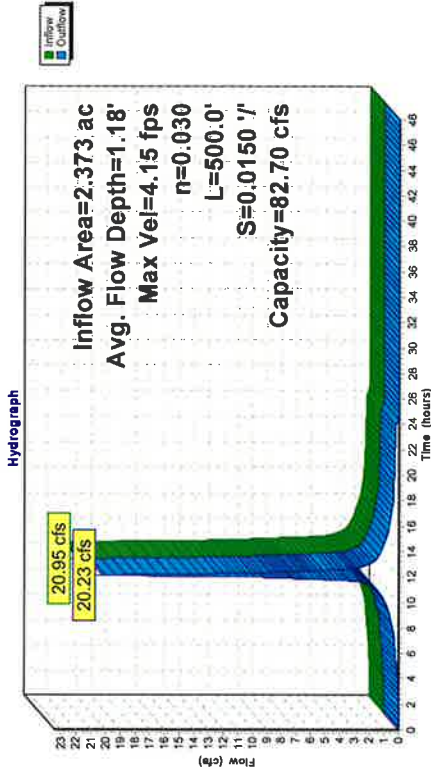
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.15 fps, Min. Travel Time= 2.0 min
 Avg. Velocity = 1.51 fps, Avg. Travel Time= 5.5 min

Peak Storage= 2,434 cf @ 12.13 hrs
 Average Depth at Peak Storage= 1.18'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 500.0' Slope= 0.0150 ' / '
 Inlet Invert= 606.00', Outlet Invert= 598.50'



Reach TBD2: TBD2



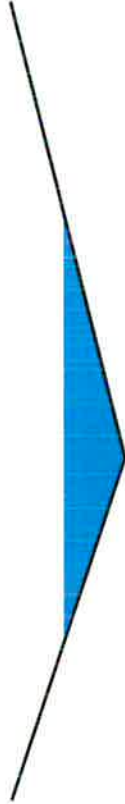
Summary for Reach TBD3: TBD3

Inflow Area = 1.705 ac, 0.00% impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 17.24 cfs @ 12.05 hrs, Volume= 1.237 af
 Outflow = 16.22 cfs @ 12.08 hrs, Volume= 1.237 af, Atten= 6%, Lag= 1.5 min

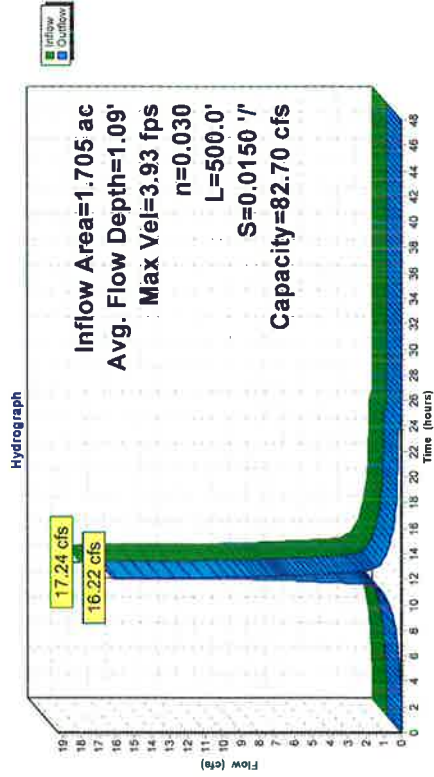
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.93 fps, Min. Travel Time= 2.1 min
 Avg. Velocity = 1.40 fps, Avg. Travel Time= 6.0 min

Peak Storage= 2,063 cf @ 12.08 hrs
 Average Depth at Peak Storage= 1.09'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 500.0' Slope= 0.0150 ' / '
 Inlet Invert= 596.00', Outlet Invert= 588.50'



Reach TBD3: TBD3



Summary for Reach TBE1: TBE1

Inflow Area = 1.925 ac, 0.00% impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 17.46 cfs @ 12.08 hrs, Volume= 1.397 af
 Outflow = 16.47 cfs @ 12.13 hrs, Volume= 1.397 af, Atten= 6%, Lag= 1.8 min

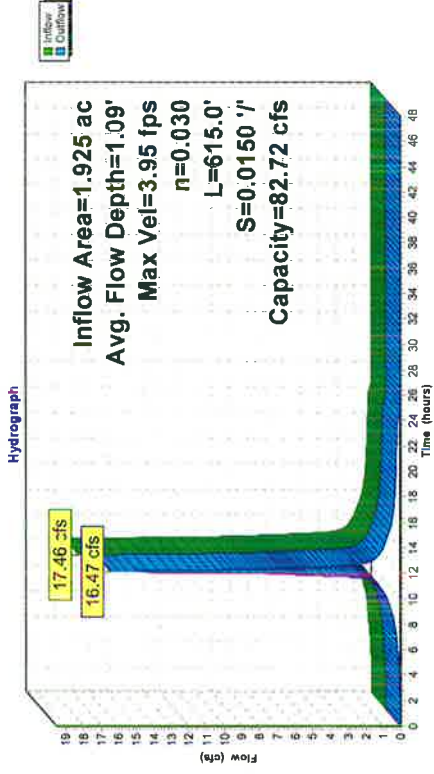
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.95 fps, Min. Travel Time= 2.6 min
 Avg. Velocity = 1.42 fps, Avg. Travel Time= 7.2 min

Peak Storage= 2,566 cf @ 12.13 hrs
 Average Depth at Peak Storage= 1.09'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.72 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 615.0' Slope= 0.0150 ' / '
 Inlet Invert= 606.00', Outlet Invert= 596.77'



Reach TBE1: TBE1



Summary for Reach TBF1: TBF1

Inflow Area = 2.202 ac, 0.00% impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 19.77 cfs @ 12.10 hrs, Volume= 1.597 af
 Outflow = 19.05 cfs @ 12.12 hrs, Volume= 1.597 af, Atten= 4%, Lag= 1.5 min

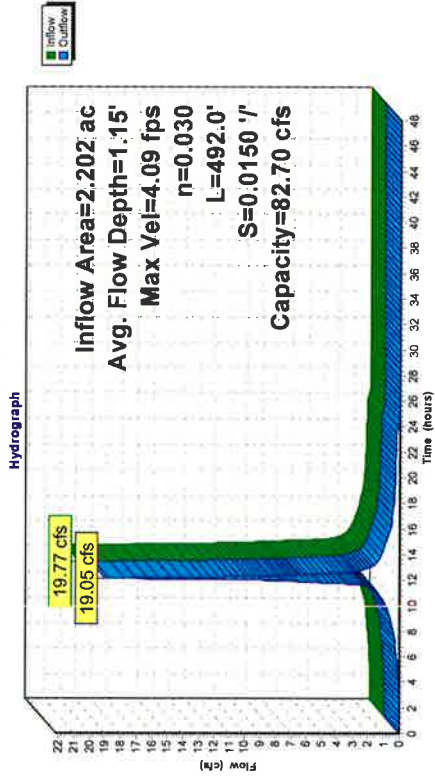
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.09 fps, Min. Travel Time= 2.0 min
 Avg. Velocity = 1.49 fps, Avg. Travel Time= 5.5 min

Peak Storage= 2.290 cf @ 12.12 hrs
 Average Depth at Peak Storage= 1.15'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 492.0' Slope= 0.0150 ' / '
 Inlet Invert= 610.00', Outlet Invert= 602.62'



Reach TBF1: TBF1



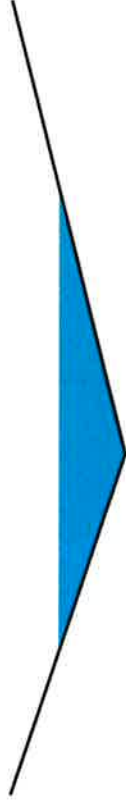
Summary for Reach TBF2: TBF2

Inflow Area = 2.386 ac, 0.00% impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 20.66 cfs @ 12.11 hrs, Volume= 1.731 af
 Outflow = 19.90 cfs @ 12.14 hrs, Volume= 1.731 af, Atten= 4%, Lag= 1.6 min

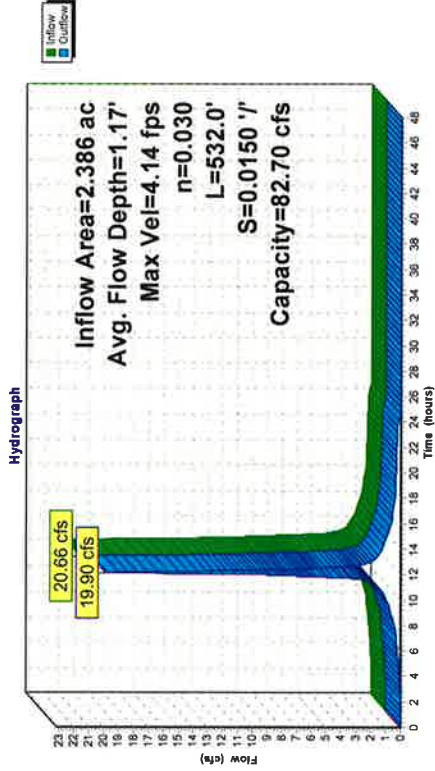
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.14 fps, Min. Travel Time= 2.1 min
 Avg. Velocity = 1.51 fps, Avg. Travel Time= 5.9 min

Peak Storage= 2.559 cf @ 12.14 hrs
 Average Depth at Peak Storage= 1.17'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 532.0' Slope= 0.0150 ' / '
 Inlet Invert= 630.00', Outlet Invert= 622.02'



Reach TBF2: TBF2



Summary for Reach TBF3: TBF3

Inflow Area = 1.950 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 19.36 cfs @ 12.06 hrs, Volume = 1.415 af
 Outflow = 18.24 cfs @ 12.09 hrs, Volume = 1.415 af, Atten= 6%, Lag= 1.5 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity = 4.05 fps, Min. Travel Time= 2.2 min
 Avg. Velocity = 1.44 fps, Avg. Travel Time= 6.2 min

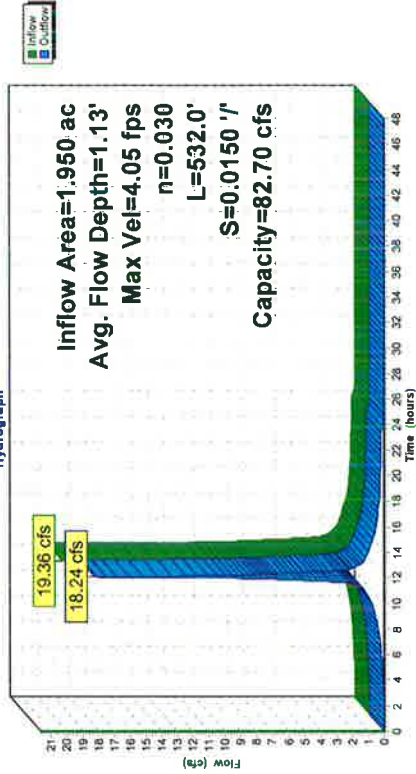
Peak Storage= 2,397 cf @ 12.09 hrs
 Average Depth at Peak Storage= 1.13'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 532.0' Slope= 0.0150 ' / '
 Inlet Invert= 590.00', Outlet Invert= 582.02'



Reach TBF3: TBF3

Hydrograph



Summary for Reach TBG1: TBG1

Inflow Area = 1.044 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 10.04 cfs @ 12.07 hrs, Volume = 0.757 af
 Outflow = 9.58 cfs @ 12.10 hrs, Volume = 0.757 af, Atten= 5%, Lag= 1.4 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity = 3.45 fps, Min. Travel Time= 2.0 min
 Avg. Velocity = 1.26 fps, Avg. Travel Time= 5.5 min

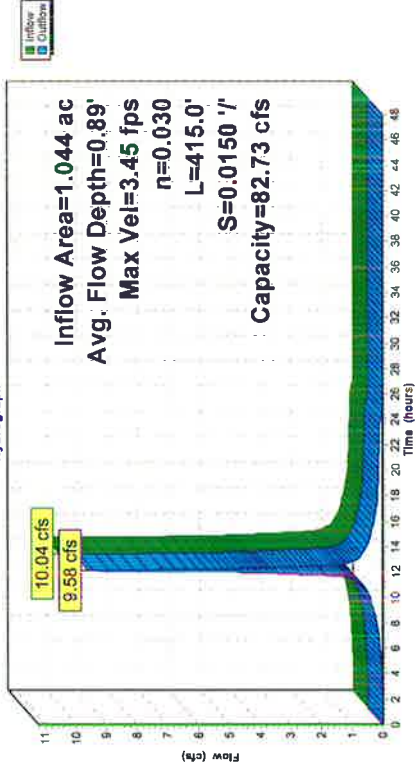
Peak Storage= 1,154 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.89'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.73 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 415.0' Slope= 0.0150 ' / '
 Inlet Invert= 666.00', Outlet Invert= 659.77'



Reach TBG1: TBG1

Hydrograph



Summary for Reach TBG2: TBG2

Inflow Area = 2.232 ac, 0.00% Impervious, Inflow Depth = 8.71" for 10c-Year, 24-Hour event
 Inflow = 20.58 cfs @ 12.09 hrs, Volume= 1,819 af
 Outflow = 19.90 cfs @ 12.11 hrs, Volume= 1,619 af, Atten= 3%, Lag= 1.3 min

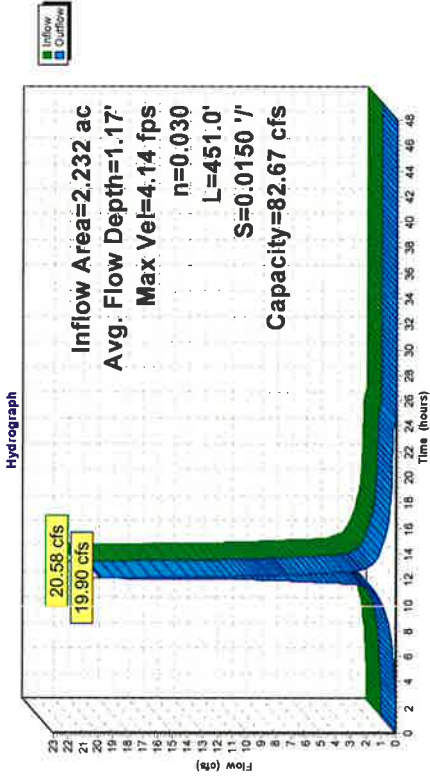
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.14 fps, Min. Travel Time= 1.8 min
 Avg. Velocity = 1.50 fps, Avg. Travel Time= 5.0 min

Peak Storage= 2,169 cf @ 12.11 hrs
 Average Depth at Peak Storage= 1.17'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.67 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 451.0' Slope= 0.0150 ' / '
 Inlet Invert= 668.00', Outlet Invert= 661.24'



Reach TBG2: TBG2



Summary for Reach TBG3: TBG3

Inflow Area = 1.985 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 19.36 cfs @ 12.07 hrs, Volume= 1,440 af
 Outflow = 18.49 cfs @ 12.09 hrs, Volume= 1,440 af, Atten= 4%, Lag= 1.4 min

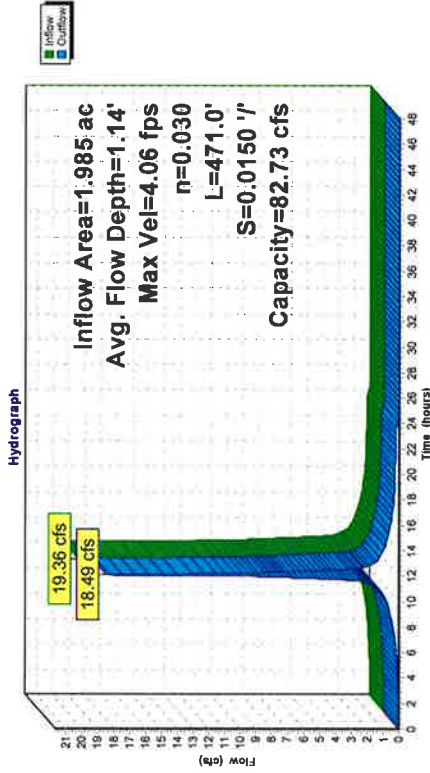
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.06 fps, Min. Travel Time= 1.9 min
 Avg. Velocity = 1.46 fps, Avg. Travel Time= 5.4 min

Peak Storage= 2,144 cf @ 12.09 hrs
 Average Depth at Peak Storage= 1.14'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.73 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 471.0' Slope= 0.0150 ' / '
 Inlet Invert= 620.00', Outlet Invert= 612.93'



Reach TBG3: TBG3



Summary for Reach TBG4: TBG4

Inflow Area = 2.003 ac, 0.00% impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 19.40 cfs @ 12.07 hrs, Volume= 1.453 af
 Outflow = 18.60 cfs @ 12.09 hrs, Volume= 1.453 af, Atten= 4%, Lag= 1.3 min

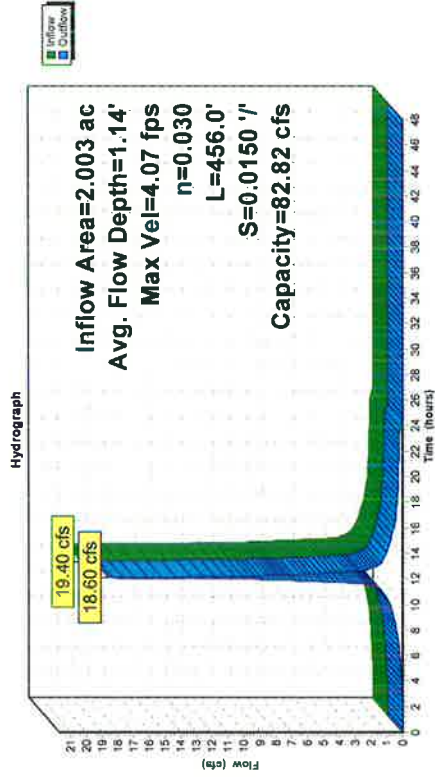
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 4.07 fps, Min. Travel Time= 1.9 min
 Avg. Velocity = 1.47 fps, Avg. Travel Time= 5.2 min

Peak Storage= 2.082 cf @ 12.09 hrs
 Average Depth at Peak Storage= 1.14'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.82 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 456.0' Slope= 0.0150 ' / '
 Inlet Invert= 620.00', Outlet Invert= 613.14'



Reach TBG4: TBG4



Summary for Reach TBH1: TBH1

Inflow Area = 1.854 ac, 0.00% impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 16.92 cfs @ 12.09 hrs, Volume= 1.345 af
 Outflow = 16.51 cfs @ 12.11 hrs, Volume= 1.345 af, Atten= 2%, Lag= 1.1 min

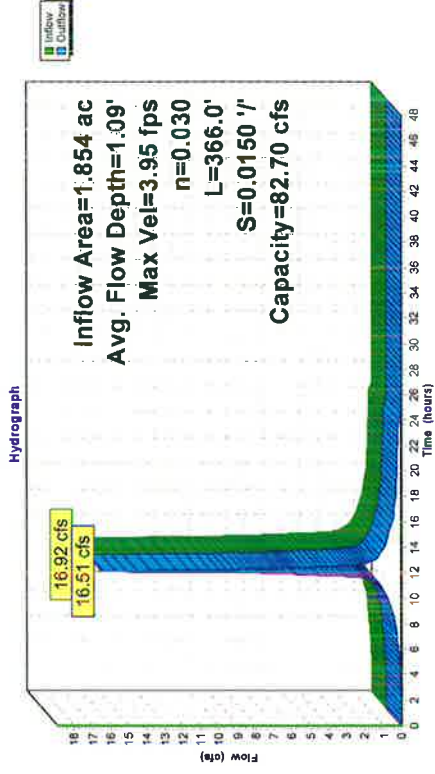
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.95 fps, Min. Travel Time= 1.5 min
 Avg. Velocity = 1.46 fps, Avg. Travel Time= 4.2 min

Peak Storage= 1.530 cf @ 12.11 hrs
 Average Depth at Peak Storage= 1.09'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 ' Top Width= 14.00'
 Length= 366.0' Slope= 0.0150 ' / '
 Inlet Invert= 670.00', Outlet Invert= 664.51'



Reach TBH1: TBH1



Summary for Reach TBH2: TBH2

Inflow Area = 0.571 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 5.26 cfs @ 12.09 hrs, Volume= 0.414 af
 Outflow = 5.18 cfs @ 12.10 hrs, Volume= 0.414 af, Atten= 2%, Lag= 0.9 min

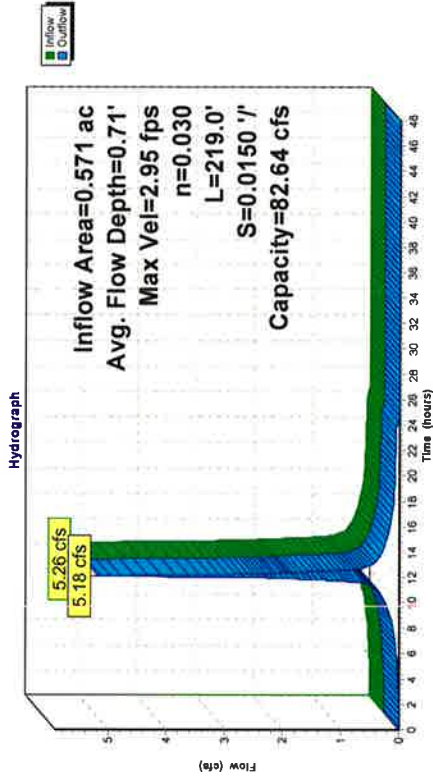
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 2.95 fps, Min. Travel Time= 1.2 min
 Avg. Velocity = 1.12 fps, Avg. Travel Time= 3.3 min

Peak Storage= 384 cf @ 12.10 hrs
 Average Depth at Peak Storage= 0.71'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.64 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0' Top Width= 14.00'
 Length= 219.0' Slope= 0.0150 '/
 Inlet Invert= 670.00', Outlet Invert= 666.72'



Reach TBH2: TBH2



Summary for Reach TBH3: TBH3

Inflow Area = 1.675 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 16.11 cfs @ 12.07 hrs, Volume= 1.215 af
 Outflow = 15.62 cfs @ 12.09 hrs, Volume= 1.215 af, Atten= 3%, Lag= 1.2 min

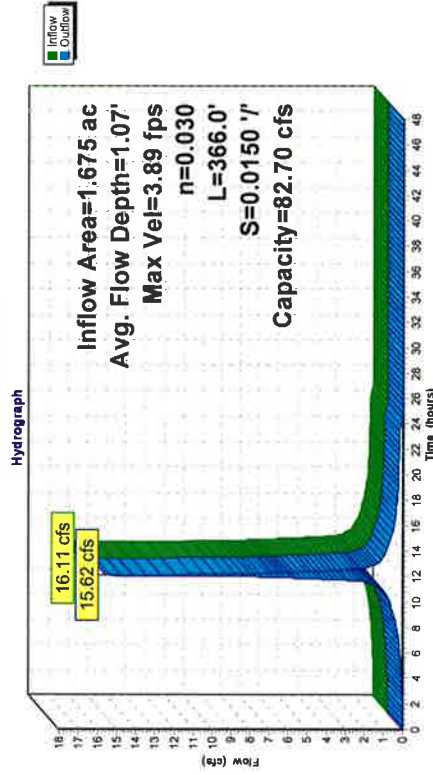
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.89 fps, Min. Travel Time= 1.6 min
 Avg. Velocity = 1.42 fps, Avg. Travel Time= 4.3 min

Peak Storage= 1,468 cf @ 12.09 hrs
 Average Depth at Peak Storage= 1.07'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.70 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0' Top Width= 14.00'
 Length= 366.0' Slope= 0.0150 '/
 Inlet Invert= 620.00', Outlet Invert= 614.51'



Reach TBH3: TBH3



Summary for Reach TBH4: TBH4

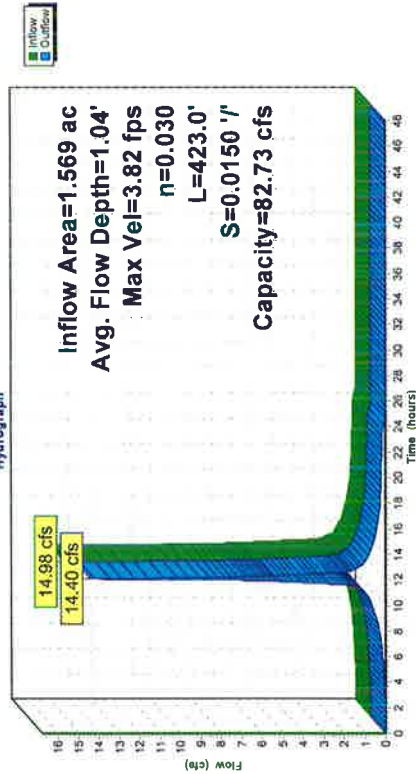
Inflow Area = 1.569 ac, 0.00% Impervious, Inflow Depth = 8.71" for 100-Year, 24-Hour event
 Inflow = 14.98 cfs @ 12.08 hrs, Volume= 1.138 af
 Outflow = 14.40 cfs @ 12.10 hrs, Volume= 1.138 af, Atten= 4%, Lag= 1.3 min
 Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max. Velocity= 3.82 fps, Min. Travel Time= 1.8 min
 Avg. Velocity = 1.39 fps, Avg. Travel Time= 5.1 min

Peak Storage= 1.596 cf @ 12.10 hrs
 Average Depth at Peak Storage= 1.04'
 Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 82.73 cfs

0.00' x 2.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0 4.0 7', Top Width= 14.00'
 Length= 423.0', Slope= 0.0150 1'
 Inlet Invert= 620.00', Outlet Invert= 613.65'



Hydrograph
 Reach TBH4: TBH4



Summary for Pond NDB: Northeast Detention Basin

Inflow Area = 106.291 ac, 12.82% Impervious, Inflow Depth = 8.81" for 100-Year, 24-Hour event
 Inflow = 745.60 cfs @ 12.16 hrs, Volume= 78.079 af
 Outflow = 238.18 cfs @ 12.57 hrs, Volume= 77.862 af, Atten= 6%, Lag= 24.5 min
 Primary = 238.18 cfs @ 12.57 hrs, Volume= 77.862 af

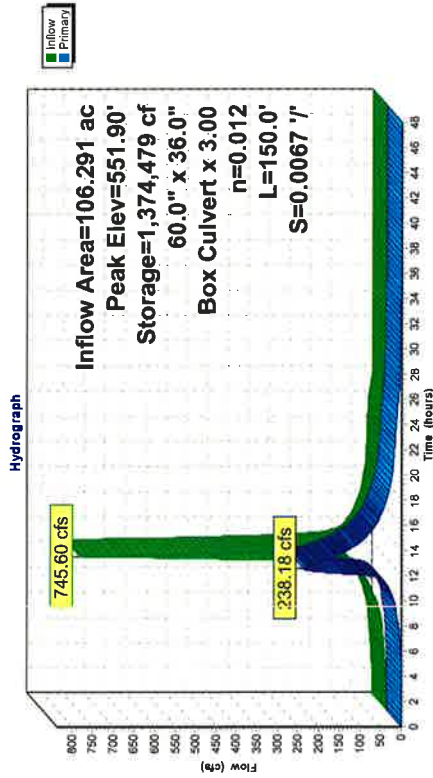
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 551.90 @ 12.57 hrs Surf Area= 495.918 sf Storage= 1,374,479 cf

Plug-Flow detention time= 151.5 min calculated for 77.862 af (100% of inflow)
 Center-of-Mass det. time= 149.4 min (926.7 - 777.3)

Volume	Invert	Avail. Storage	Storage Description
#1	549.00'	3,539,859 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf. Area (sq-ft)	Inc. Store (cubic-feet)	Cum. Store (cubic-feet)
549.00	451,169	0	0
550.00	466,412	458,791	458,791
552.00	497,421	963,833	1,422,624
554.00	529,133	1,026,554	2,449,178
556.00	561,548	1,090,681	3,539,859

Device Routing Invert Outlet Devices
 #1 Primary 549.00' 60.0" W x 36.0" H Box Culvert X 3.00
 L= 150.0' Box, headwall w/3 square edges, Ke= 0.500
 Inlet / Outlet Invert= 549.00' / 548.00' S= 0.0067 1' Cc= 0.900
 n= 0.012 Concrete pipe, finished, Flow Area= 15.00 sf
 Primary Outflow Max=238.16 cfs @ 12.57 hrs HW=551.90' (Free Discharge)
 1=Culvert (Inlet Controls 238.16 cfs @ 5.47 fps)

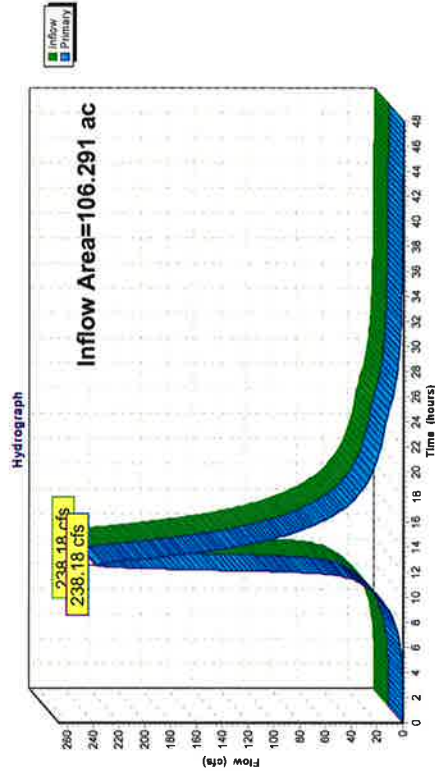
Pond NDB: Northeast Detention Basin



Summary for Link P-OFF-LF-3: P-OFF-LF-3

Inflow Area = 106.291 ac, 12.82% Impervious, Inflow Depth > 8.79" for 100-Year, 24-Hour event
 Inflow = 238.18 cfs @ 12.57 hrs, Volume= 77,862 af
 Primary = 238.18 cfs @ 12.57 hrs, Volume= 77,862 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link P-OFF-LF-3: P-OFF-LF-3

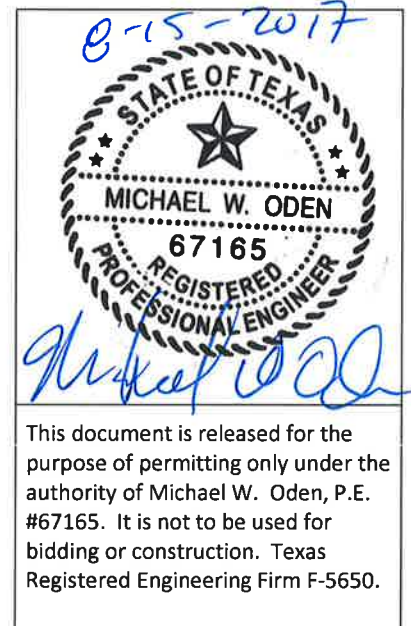


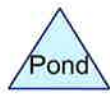
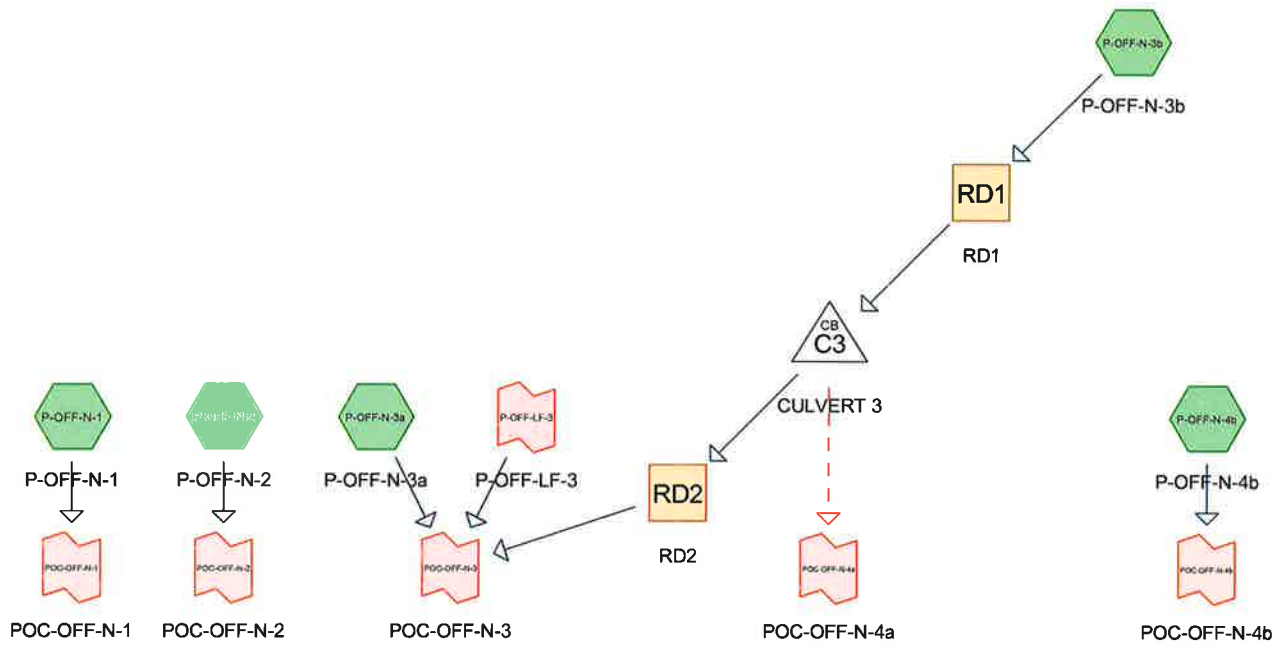
ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

- 2. **POST-DEVELOPMENT CONDITIONS**
 - A. **NORTH AREA**
 - III. **STORMWATER RUN-OFF MODEL**
 - 1. **MODEL DIAGRAM**
 - 2. **25-YEAR, 24-HOUR RESULTS**





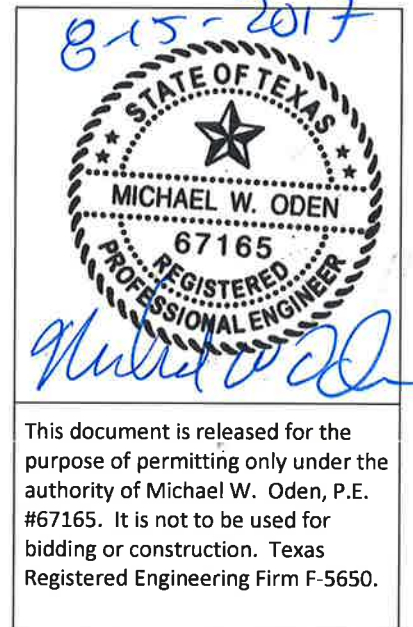
Routing Diagram for Post-Development Conditions Runoff - North
 Prepared by Chicago Bridge and Iron Company, Printed 8/9/2017
 HydroCAD® 10.00-15 s/n 04891 © 2015 HydroCAD Software Solutions LLC

ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

- 2. **POST-DEVELOPMENT CONDITIONS**
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Post-Development Conditions Runoff - North

Prepared by Chicago Bridge and Iron Company

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
636.820	72	Desert shrub range, Fair, HSG B (P-OFF-N-1, P-OFF-N-2, P-OFF-N-3a, P-OFF-N-3b, P-OFF-N-4b)
145.330	81	Desert shrub range, Fair, HSG C (P-OFF-N-1)
1,109.402	86	Desert shrub range, Fair, HSG D (P-OFF-N-1, P-OFF-N-2, P-OFF-N-3a, P-OFF-N-3b, P-OFF-N-4b)
5.350	98	Water Surface, HSG D (P-OFF-N-1)
1,896.902	81	TOTAL AREA

Summary for Subcatchment P-OFF-N-1: P-OFF-N-1

Runoff = 531.41 cfs @ 16.27 hrs, Volume= 308,293 af, Depth= 5.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

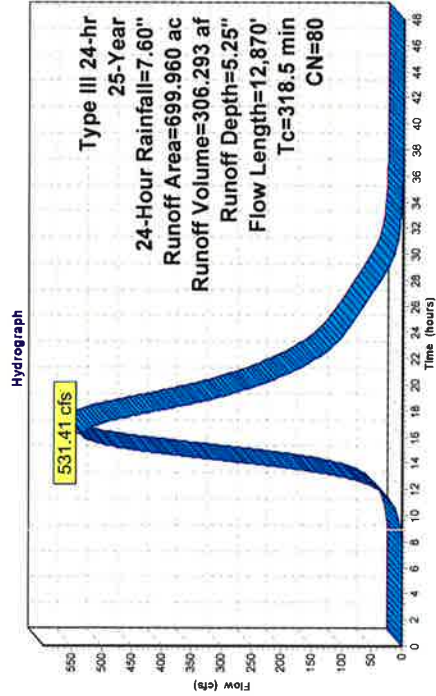
Area (ac)	CN	Description
298.700	86	Desert shrub range, Fair, HSG D
145.830	81	Desert shrub range, Fair, HSG C
250.580	72	Desert shrub range, Fair, HSG B
5.350	98	Water Surface, HSG D
699.960	80	Weighted Average
694.610	99.24%	Pervious Area
5.350	0.76%	Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		

Sheet Flow,
 Range n= 0.130 P2= 3.75"
Shallow Concentrated Flow,
 Nearly Bare & Untilled Kv= 10.0 fps

318.5 12,870 Total

Subcatchment P-OFF-N-1: P-OFF-N-1



Summary for Subcatchment P-OFF-N-2: P-OFF-N-2

Runoff = 470.74 cfs @ 15.65 hrs, Volume= 235,623 af, Depth= 5.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

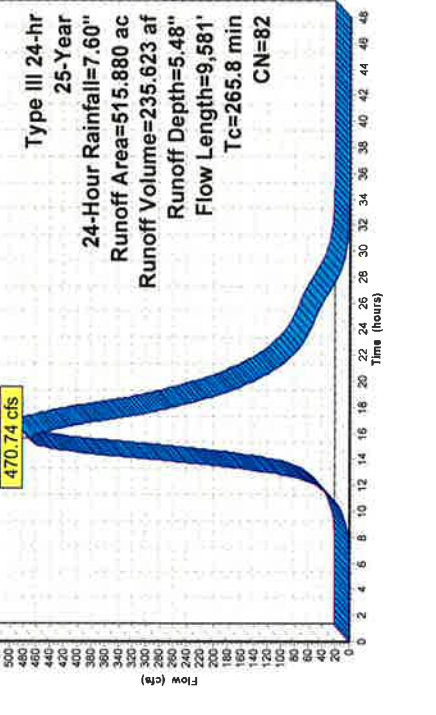
Area (ac)	CN	Description
362.630	86	Desert shrub range, Fair, HSG D
153.250	72	Desert shrub range, Fair, HSG B
515.880	82	Weighted Average
515.880	100.00%	Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		

Sheet Flow,
 Range n= 0.130 P2= 3.75"
Shallow Concentrated Flow,
 Nearly Bare & Untilled Kv= 10.0 fps

265.8 9,581 Total

Subcatchment P-OFF-N-2: P-OFF-N-2



Summary for Subcatchment P-OFF-N-3a: P-OFF-N-3a

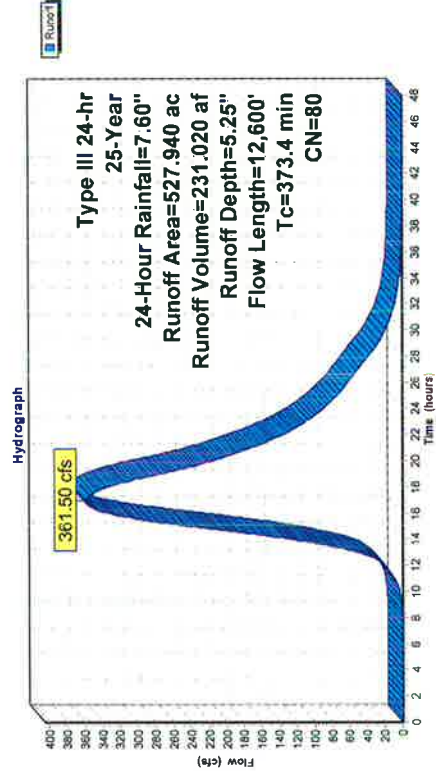
Runoff = 361.50 cfs @ 17.01 hrs, Volume= 231,020 af, Depth= 5.25"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
208.367	72	Desert shrub range, Fair, HSG B
319.553	86	Desert shrub range, Fair, HSG D
527.940	80	Weighted Average
527.940		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		
309.0	12,300	0.0044	0.66		
373.4	12,600	Total			

Sheet Flow,	n= 0.130 P2= 3.75"
Shallow Concentrated Flow,	Nearly Bare & Unfilled Kv= 10.0 fps

Subcatchment P-OFF-N-3a: P-OFF-N-3a



Summary for Subcatchment P-OFF-N-3b: P-OFF-N-3b

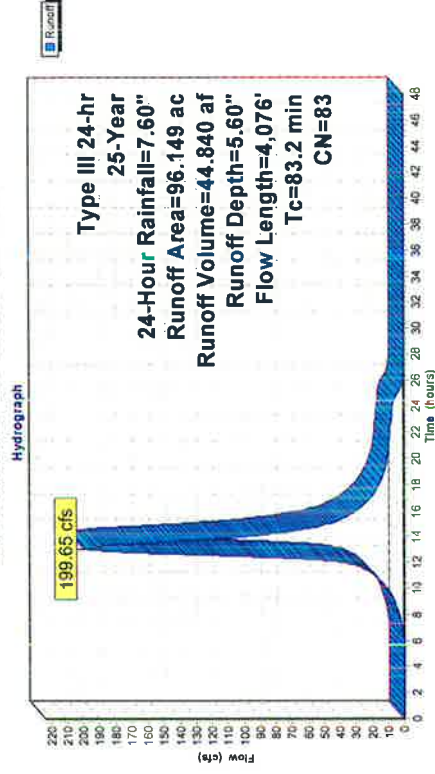
Runoff = 199.65 cfs @ 13.04 hrs, Volume= 44,840 af, Depth= 5.60"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
73.063	86	Desert shrub range, Fair, HSG D
23.086	72	Desert shrub range, Fair, HSG B
96.149	83	Weighted Average
96.149		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.3	300	0.0180	0.25		
62.9	3,776	0.0100	1.00		
83.2	4,076	Total			

Sheet Flow,	n= 0.130 P2= 3.75"
Shallow Concentrated Flow,	Nearly Bare & Unfilled Kv= 10.0 fps

Subcatchment P-OFF-N-3b: P-OFF-N-3b

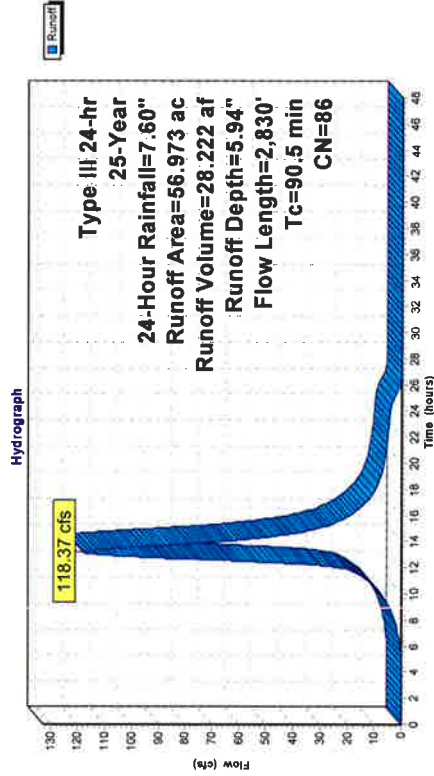


Summary for Subcatchment P-OFF-N-4b: P-OFF-N-4b

Runoff = 118.37 cfs @ 13.17 hrs, Volume= 28,222 af, Depth= 5.94"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description		
55.456	86	Desert shrub range, Fair, HSG D		
1.517	72	Desert shrub range, Fair, HSG B		
56.973	86	Weighted Average		
56.973		100.00% Pervious Area		
Tc Length (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.6	300	0.0070	0.17	Sheet Flow
				Range n= 0.130 P2= 3.75"
60.9	2,530	0.0048	0.69	Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps
90.5	2,830			Tota

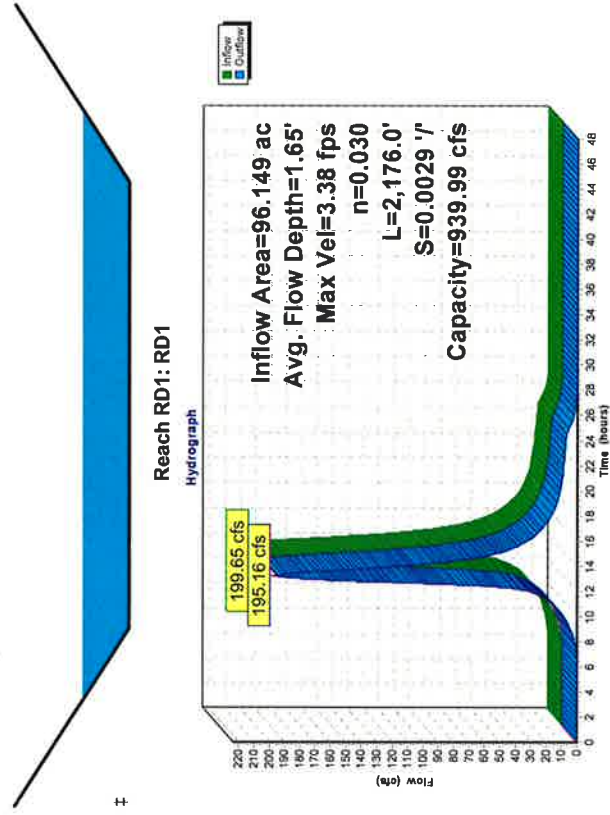
Subcatchment P-OFF-N-4b: P-OFF-N-4b



Summary for Reach RD1: RD1

Inflow Area = 96.149 ac, 0.00% impervious, Inflow Depth = 5.60" for 25-Year, 24-Hour event
 Inflow = 199.65 cfs @ 13.04 hrs, Volume= 44,840 af
 Outflow = 195.16 cfs @ 13.21 hrs, Volume= 44,840 af, Atten= 2%, Lag= 10.3 min
 Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max Velocity= 3.38 fps, Min. Travel Time= 10.7 min
 Avg. Velocity = 0.82 fps, Avg. Travel Time= 44.1 min

Peak Storage= 125,596 cf @ 13.21 hrs
 Average Depth at Peak Storage= 1.65'
 Bank-Full Depth= 4.00' Flow Area= 168.0 sf, Capacity= 939.99 cfs
 30.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.07 Top Width= 54.00'
 Length= 2,176.0' Slope= 0.00297'
 Inlet Invert= 555.00', Outlet Invert= 548.69'



Summary for Reach RD2: RD2

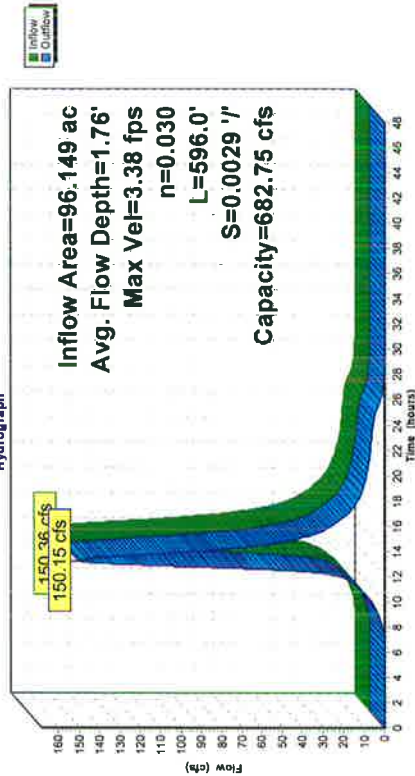
Inflow Area = 96.149 ac, 0.00% Impervious, Inflow Depth = 4.31" for 25-Year, 24-Hour event
 Inflow = 150.36 cfs @ 13.21 hrs, Volume= 34,550 af
 Outflow = 150.15 cfs @ 13.24 hrs, Volume= 34,550 af, Atten= 0%, Lag= 1.8 min
 Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Max Velocity= 3.38 fps, Min. Travel Time= 2.9 min
 Avg. Velocity = 0.85 fps, Avg. Travel Time= 11.7 min

Peak Storage= 26,456 cf @ 13.24 hrs
 Average Depth at Peak Storage= 1.76'
 Bank-Full Depth= 4.00' Flow Area= 128.0 sf, Capacity= 682.75 cfs

20.00' x 4.00' deep channel, n= 0.030
 Side Slope Z-value= 3.0' Top Width= 44.00'
 Length= 596.0' Slope= 0.0029 '
 Inlet Invert= 548.69', Outlet Invert= 546.96'



Hydrograph
 Reach RD2: RD2



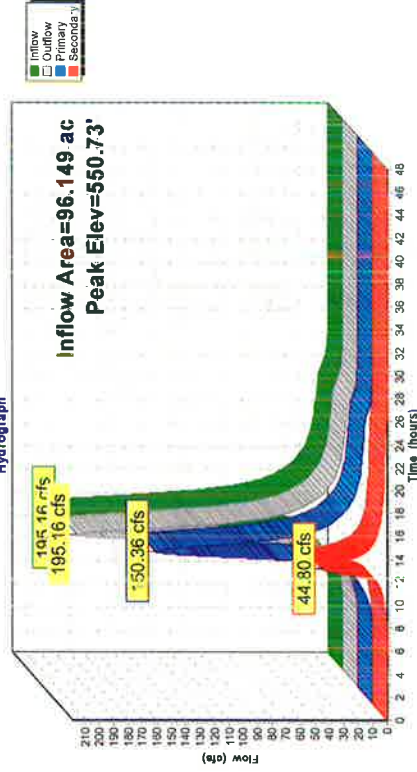
Summary for Pond C3: CULVERT 3

Inflow Area = 96.149 ac, 0.00% Impervious, Inflow Depth = 5.60" for 25-Year, 24-Hour event
 Inflow = 195.16 cfs @ 13.21 hrs, Volume= 44,840 af
 Outflow = 195.16 cfs @ 13.21 hrs, Volume= 44,840 af, Atten= 0%, Lag= 0.0 min
 Primary = 150.36 cfs @ 13.21 hrs, Volume= 34,550 af
 Secondary = 44.80 cfs @ 13.21 hrs, Volume= 10,290 af
 Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 550.73' @ 13.21 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	548.69'	120.0" W x 36.0" H Box Culverts 3a X 2.00 L= 30.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 548.69' / 548.60' S= 0.0030 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 30.00 sf
#2	Secondary	548.69'	72.0" W x 36.0" H Box Culvert 3b L= 30.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 548.69' / 548.60' S= 0.0030 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 18.00 sf

Primary Outflow Max=150.36 cfs @ 13.21 hrs HW=550.73' (Free Discharge)
 1=1=Culverts 3a (Barrel Controls 150.36 cfs @ 4.91 fps)
Secondary Outflow Max=44.80 cfs @ 13.21 hrs HW=550.73' (Free Discharge)
 2=Culvert 3b (Barrel Controls 44.80 cfs @ 4.88 fps)

Hydrograph
 Pond C3: CULVERT 3



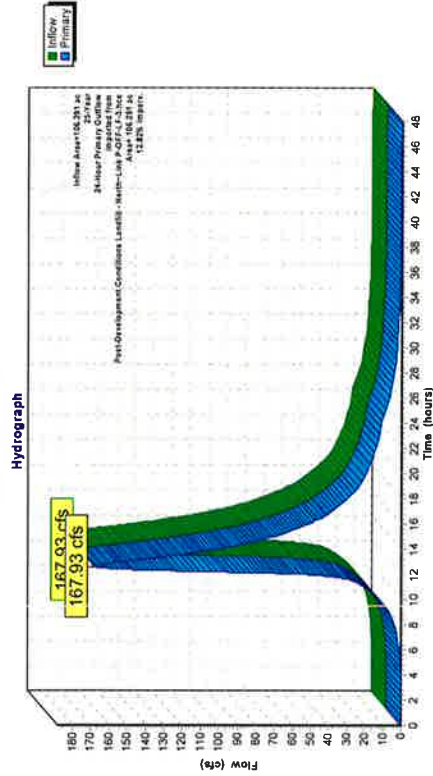
Summary for Link P-OFF-LF-3: P-OFF-LF-3

Inflow Area = 106.251 ac, 12.82% Impervious, Inflow Depth > 6.61" for 25-Year, 24-Hour event
 Inflow = 167.93 cfs @ 12.61 hrs, Volume= 58.576 af
 Primary = 167.93 cfs @ 12.61 hrs, Volume= 58.576 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Primary Outflow imported from: Post-Development Conditions Landfill - North-Link P-OFF-LF-3.hce

Link P-OFF-LF-3: P-OFF-LF-3

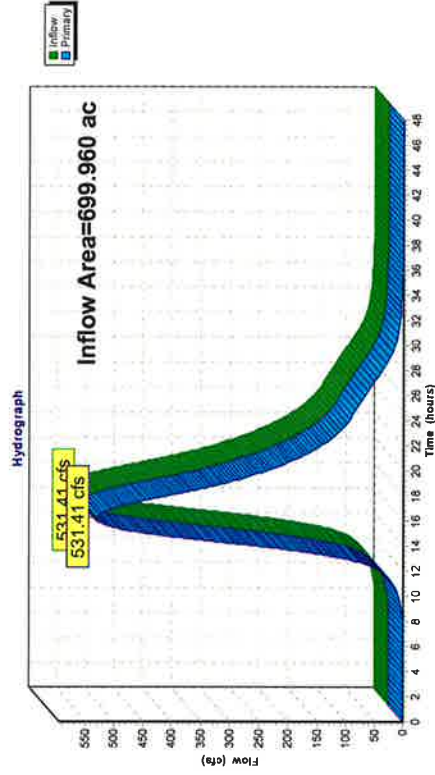


Summary for Link POC-OFF-N-1: POC-OFF-N-1

Inflow Area = 699.960 ac, 0.76% Impervious, Inflow Depth = 5.25" for 25-Year, 24-Hour event
 Inflow = 531.41 cfs @ 16.27 hrs, Volume= 306.293 af
 Primary = 531.41 cfs @ 16.27 hrs, Volume= 306.293 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

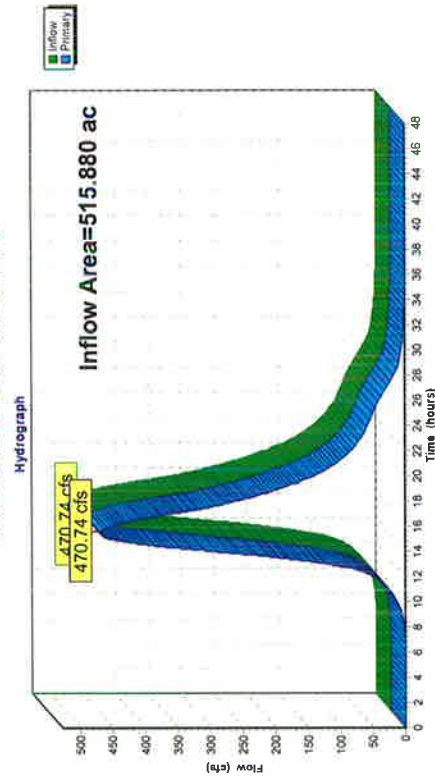
Link POC-OFF-N-1: POC-OFF-N-1



Summary for Link POC-OFF-N-2: POC-OFF-N-2

Inflow Area = 515.880 ac, 0.00% impervious, Inflow Depth = 5.48" for 25-Year, 24-Hour event
 Inflow = 470.74 cfs @ 15.65 hrs, Volume= 235.623 af
 Primary = 470.74 cfs @ 15.65 hrs, Volume= 235.623 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

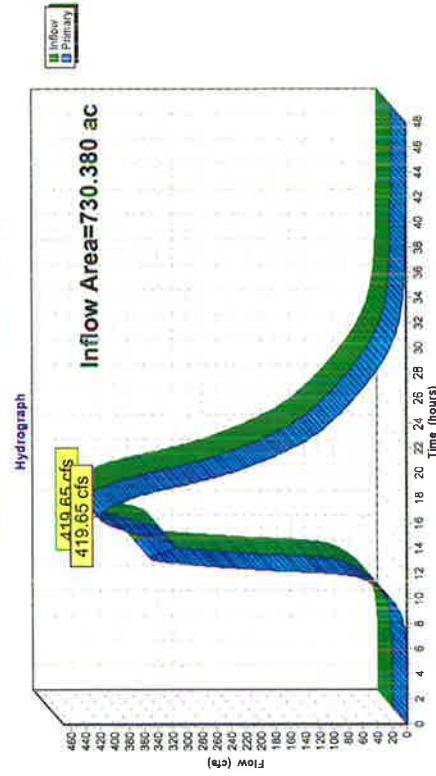
Link POC-OFF-N-2: POC-OFF-N-2



Summary for Link POC-OFF-N-3: POC-OFF-N-3

Inflow Area = 730.380 ac, 1.87% impervious, Inflow Depth > 5.33" for 25-Year, 24-Hour event
 Inflow = 419.65 cfs @ 16.60 hrs, Volume= 324.145 af
 Primary = 419.65 cfs @ 16.60 hrs, Volume= 324.145 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

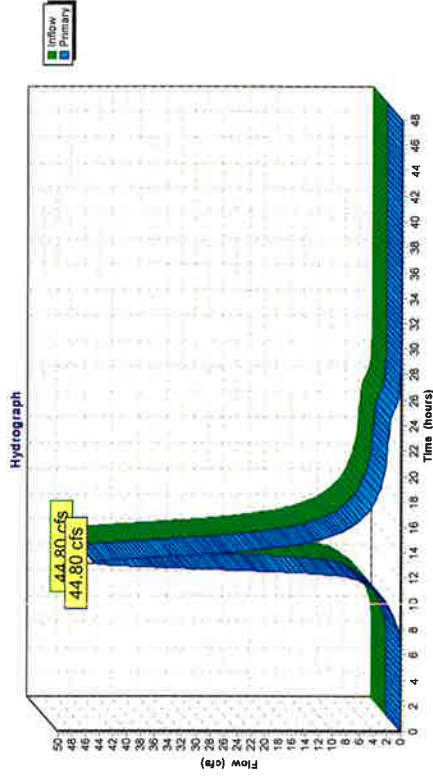
Link POC-OFF-N-3: POC-OFF-N-3



Summary for Link POC-OFF-N-4a: POC-OFF-N-4a

Inflow = 44.80 cfs @ 13.21 hrs, Volume= 10,290 af
 Primary = 44.80 cfs @ 13.21 hrs, Volume= 10,290 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

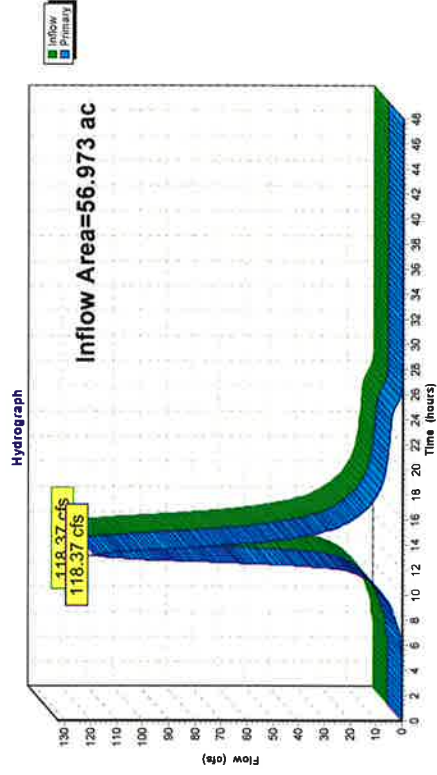
Link POC-OFF-N-4a: POC-OFF-N-4a



Summary for Link POC-OFF-N-4b: POC-OFF-N-4b

Inflow Area = 56.973 ac, 0.00% Impervious, Inflow Depth = 5.94" for 25-Year, 24-Hour event
 Inflow = 118.37 cfs @ 13.17 hrs, Volume= 28,222 af
 Primary = 118.37 cfs @ 13.17 hrs, Volume= 28,222 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-OFF-N-4b: POC-OFF-N-4b



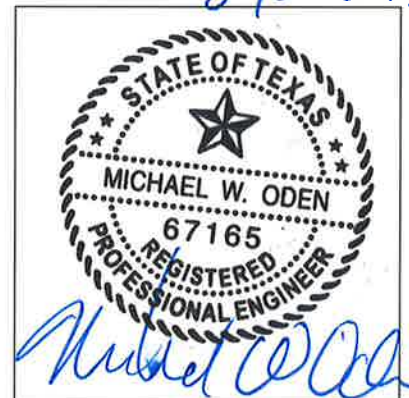
ATTACHMENT III-C

APPENDIX III-C.4

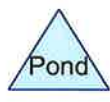
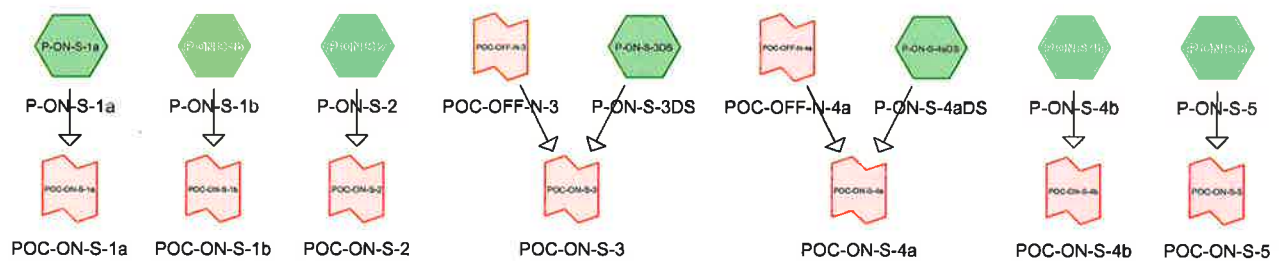
HYDROCAD MODEL OUTPUT FILES

- 2. **POST-DEVELOPMENT CONDITIONS**
 - B. **SOUTH AREA**
 - I. **STORMWATER RUN-ON MODEL**
 - 1. **MODEL DIAGRAM**
 - 2. **25-YEAR, 24-HOUR RESULTS**

8-15-2017



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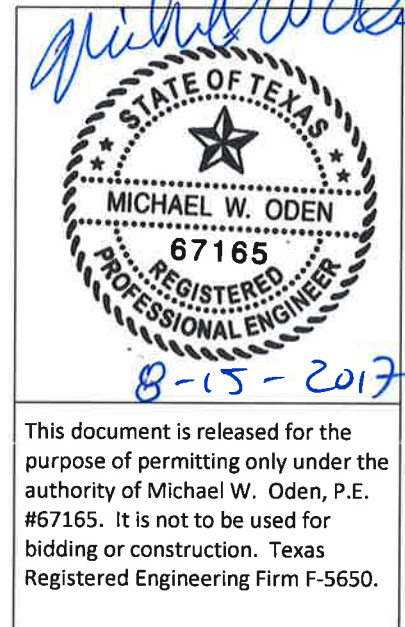
Routing Diagram for Post-Development Conditions Runon- South
 Prepared by Chicago Bridge and Iron Company, Printed 8/9/2017
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ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

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Post-Development Conditions Runon- South

Prepared by Chicago Bridge and Iron Company

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1,358.608	72	Desert shrub range, Fair, HSG B (P-ON-S-1b, P-ON-S-2, P-ON-S-4b, P-ON-S-5)
936.150	81	Desert shrub range, Fair, HSG C (P-ON-S-1a, P-ON-S-1b)
6,287.671	86	Desert shrub range, Fair, HSG D (P-ON-S-1a, P-ON-S-1b, P-ON-S-2, P-ON-S-3DS, P-ON-S-4aDS, P-ON-S-4b, P-ON-S-5)
38.754	98	Water Surface, HSG D (P-ON-S-1a, P-ON-S-1b)
8,621.183	83	TOTAL AREA

Summary for Subcatchment P-ON-S-1a: P-ON-S-1a

Runoff = 4,136.29 cfs @ 16.07 hrs, Volume= 2,246,193 af, Depth= 5.83"

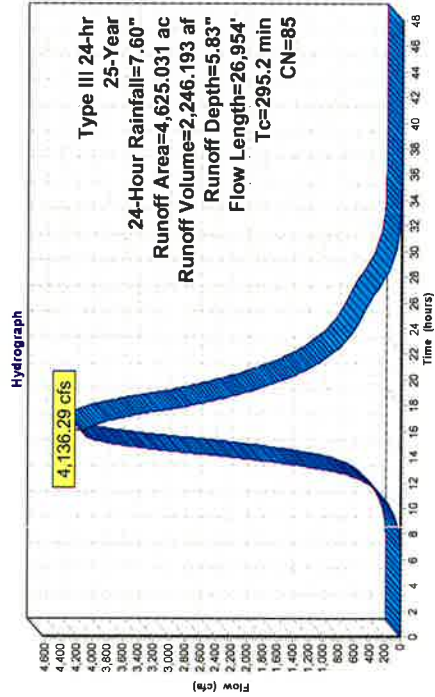
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
33,404	98	Water Surface, HSG D
790,920	81	Desert shrub range, Fair, HSG C
3,800,807	86	Desert shrub range, Fair, HSG D
4,625,031	85	Weighted Average
4,591,627		99.28% Pervious Area
33,404		0.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.9	300	0.0167	0.24		
150.1	8,398	0.0067	0.93		
124.2	18,256	0.0025	2.45	39.21	
295.2	26,954	Total			

Sheet Flow,	
Range	n= 0.130 P2= 3.75"
Shallow Concentrated Flow,	
Nearly Bare & Untilled Kv= 10.0 fps	
Channel Flow,	
Area	= 16.0 sf Perim= 12.9' r= 1.24' n= 0.035

Subcatchment P-ON-S-1a: P-ON-S-1a



Summary for Subcatchment P-ON-S-1b: P-ON-S-1b

Runoff = 531.41 cfs @ 16.27 hrs, Volume= 306,293 af, Depth= 5.25"

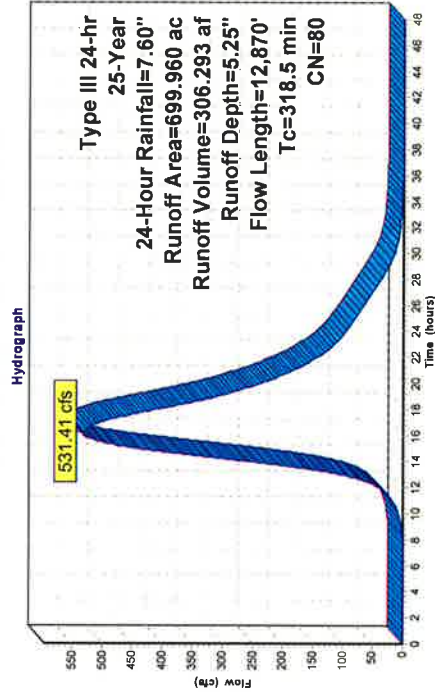
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
298,700	86	Desert shrub range, Fair, HSG D
145,330	81	Desert shrub range, Fair, HSG C
250,580	72	Desert shrub range, Fair, HSG B
5,350	98	Water Surface, HSG D
699,960	80	Weighted Average
694,610		99.24% Pervious Area
5,350		0.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		
254.1	12,570	0.0068	0.82		
318.5	12,870	Total			

Sheet Flow,	
Range	n= 0.130 P2= 3.75"
Shallow Concentrated Flow,	
Nearly Bare & Untilled Kv= 10.0 fps	

Subcatchment P-ON-S-1b: P-ON-S-1b



Summary for Subcatchment P-ON-S-2: P-ON-S-2

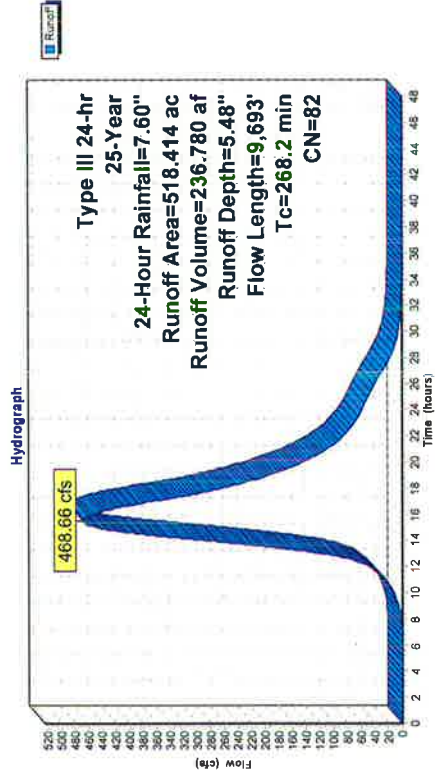
Runoff = 468.66 cfs @ 15.50 hrs, Volume= 236,780 af, Depth= 5.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
365.164	86	Desert shrub range, Fair, HSG D
153.250	72	Desert shrub range, Fair, HSG B
518.414	82	Weighted Average
518.414		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		Sheet Flow, Range n= 0.130 P2= 3.75"
203.8	9,393	0.0059	0.77		Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps
268.2	9,693	Total			

Subcatchment P-ON-S-2: P-ON-S-2



Summary for Subcatchment P-ON-S-3DS: P-ON-S-3DS

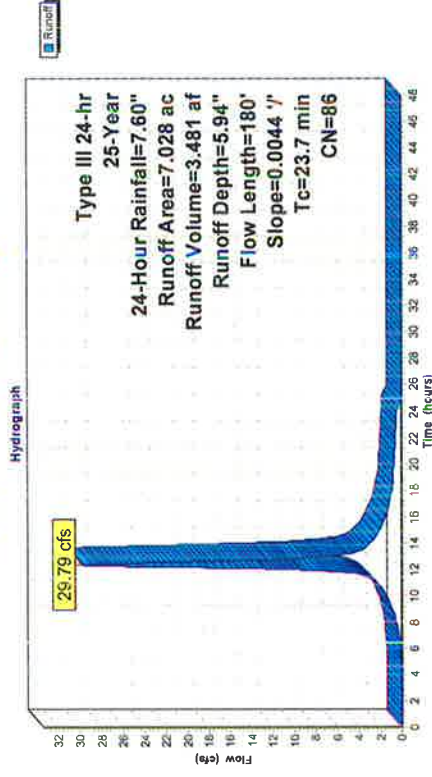
Runoff = 29.79 cfs @ 12.30 hrs, Volume= 3,481 af, Depth= 5.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
7.028	86	Desert shrub range, Fair, HSG D
7.028		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.7	180	0.0044	0.13		Sheet Flow, Range n= 0.130 P2= 3.75"

Subcatchment P-ON-S-3DS: P-ON-S-3DS

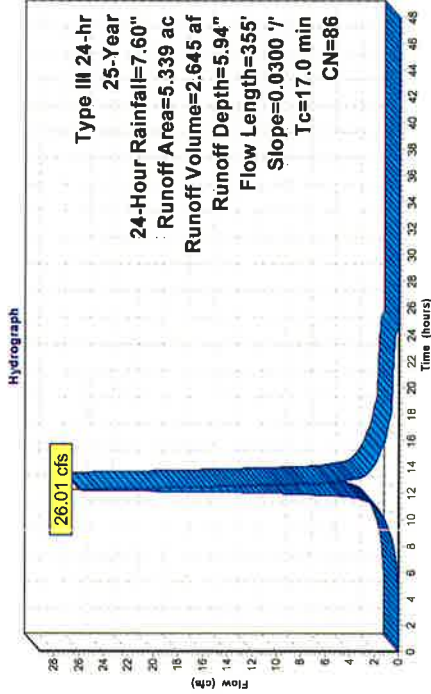


Summary for Subcatchment P-ON-S-4aDS: P-ON-S-4aDS

Runoff = 26.01 cfs @ 12.22 hrs, Volume= 2.645 af, Depth= 5.94"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description			
5.339	86	Desert shrub range, Fair, HSG D			
5.339	100.00%	Pervious Area			
Tc	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.5	300	0.0300	0.30		
Sheet Flow, Range n= 0.130 P2= 3.75" Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps					
17.0	355	Total			

Subcatchment P-ON-S-4aDS: P-ON-S-4aDS

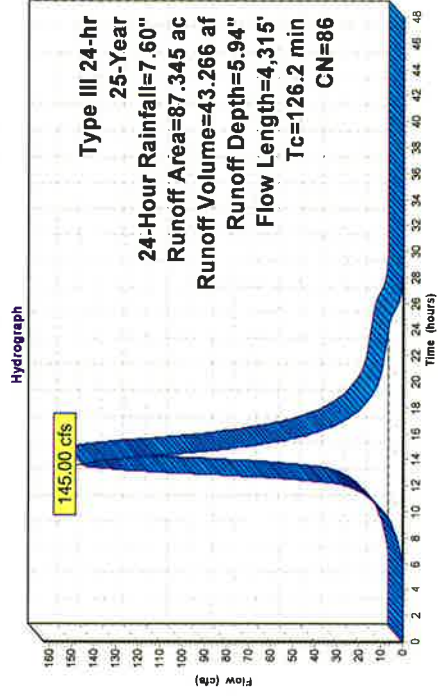


Summary for Subcatchment P-ON-S-4b: P-ON-S-4b

Runoff = 145.00 cfs @ 13.60 hrs, Volume= 43.266 af, Depth= 5.94"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description			
85.828	86	Desert shrub range, Fair, HSG D			
1.517	72	Desert shrub range, Fair, HSG B			
87.345	86	Weighted Average			
		100.00% Pervious Area			
Tc	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.6	300	0.0070	0.17		
Sheet Flow, Range n= 0.130 P2= 3.75" Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps					
126.2	4,315	Total			

Subcatchment P-ON-S-4b: P-ON-S-4b



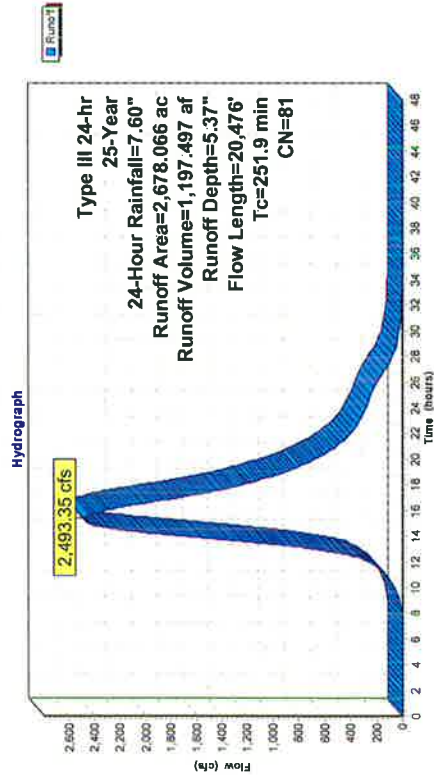
Summary for Subcatchment P-ON-S-5: P-ON-S-5

Runoff = 2,493.35 cfs @ 15.39 hrs, Volume= 1,197,497 af, Depth= 5.37"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
953.261	72	Desert shrub range, Fair, HSG B
1.724.805	86	Desert shrub range, Fair, HSG D
2,678.066	81	Weighted Average
2,678.066		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.9	300	0.0333	0.32		Sheet Flow, Range n= 0.130 P2= 3.75"
164.1	9,183	0.0087	0.93		Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps
71.9	10,983	0.0027	2.55	40.75	Channel Flow, Area= 16.0 sf Perim= 12.9' r= 1.24' n= 0.035
251.9	20,476	Total			

Subcatchment P-ON-S-5: P-ON-S-5

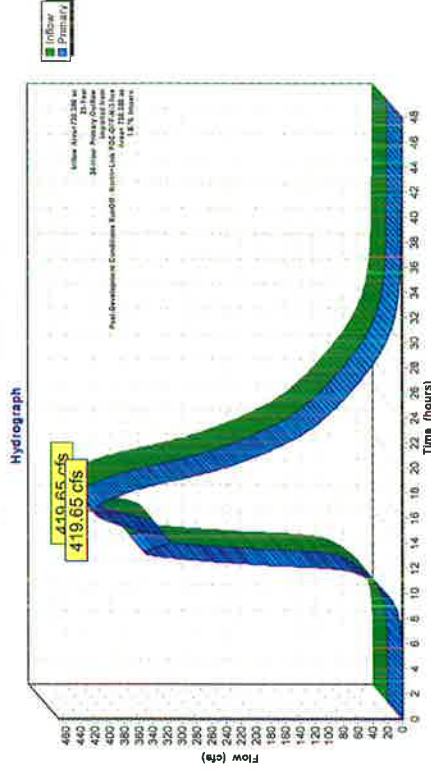


Summary for Link POC-OFF-N-3: POC-OFF-N-3

Inflow Area = 730.380 ac, 1.87% Impervious, Inflow Depth > 5.33" for 25-Year, 24-Hour event
 Inflow = 419.65 cfs @ 16.60 hrs, Volume= 324,145 af
 Primary = 419.65 cfs @ 16.60 hrs, Volume= 324,145 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Primary Outflow imported from Post-Development Conditions RunOff - North-Link POC-OFF-N-3.h

Link POC-OFF-N-3: POC-OFF-N-3

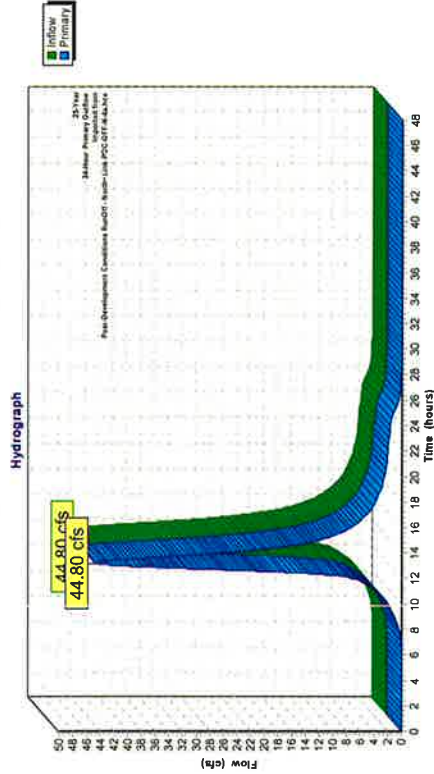


Summary for Link POC-OFF-N-4a: POC-OFF-N-4a

Inflow = 44.80 cfs @ 13.21 hrs, Volume= 10,290 af
 Primary = 44.80 cfs @ 13.21 hrs, Volume= 10,290 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Primary Outflow imported from Post-Development Conditions RunOff - North-Link POC-OFF-N-4a.

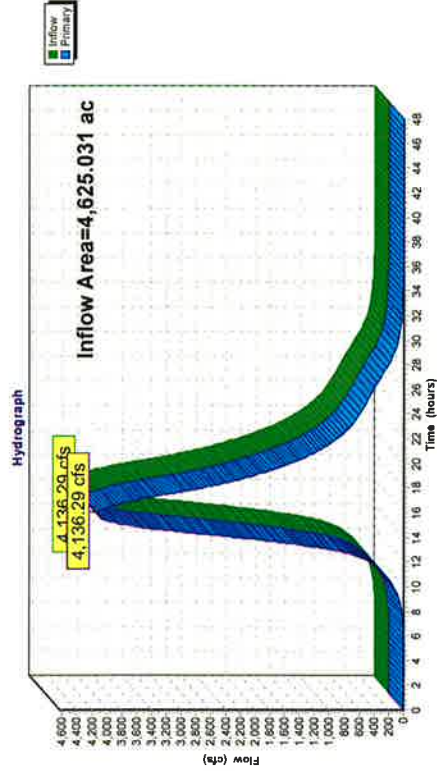
Link POC-OFF-N-4a: POC-OFF-N-4a



Summary for Link POC-ON-S-1a: POC-ON-S-1a

Inflow Area = 4,625.031 ac, 0.73% Impervious, Inflow Depth = 5.83" for 25-Year, 24-Hour event
 Inflow = 4,136.29 cfs @ 16.07 hrs, Volume= 2,246.193 af
 Primary = 4,136.29 cfs @ 16.07 hrs, Volume= 2,246.193 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

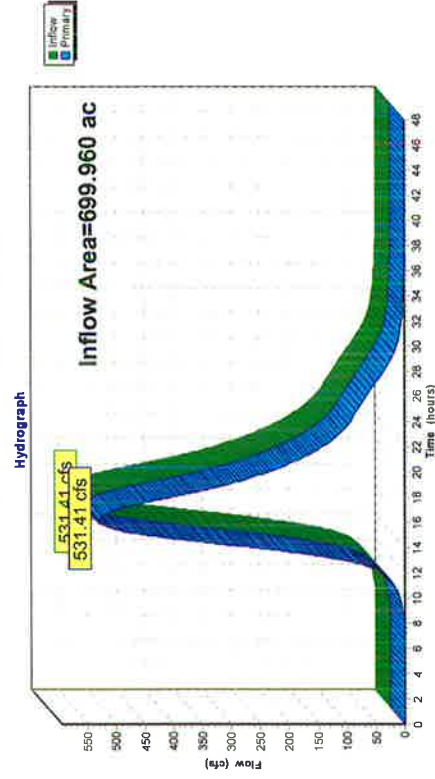
Link POC-ON-S-1a: POC-ON-S-1a



Summary for Link POC-ON-S-1b: POC-ON-S-1b

Inflow Area = 699.960 ac, 0.78% impervious, Inflow Depth = 5.25" for 25-Year, 24-Hour event
 Inflow = 531.41 cfs @ 16.27 hrs, Volume= 306.293 af
 Primary = 531.41 cfs @ 16.27 hrs, Volume= 306.293 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

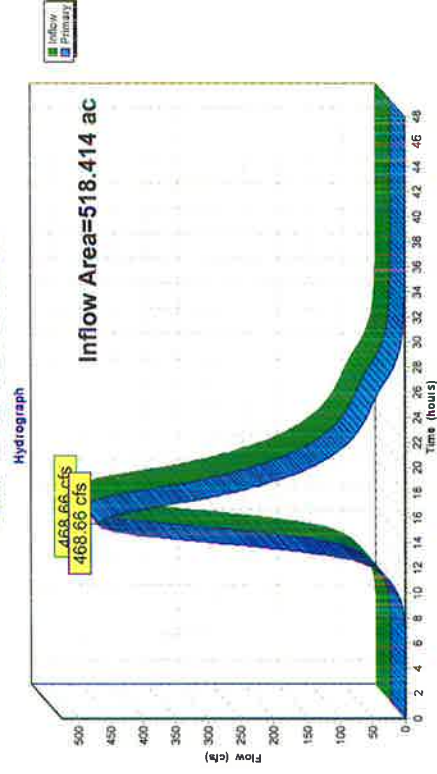
Link POC-ON-S-1b: POC-ON-S-1b



Summary for Link POC-ON-S-2: POC-ON-S-2

Inflow Area = 518.414 ac, 0.00% impervious, Inflow Depth = 5.48" for 25-Year, 24-Hour event
 Inflow = 468.66 cfs @ 15.50 hrs, Volume= 236.780 af
 Primary = 468.66 cfs @ 15.50 hrs, Volume= 236.780 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

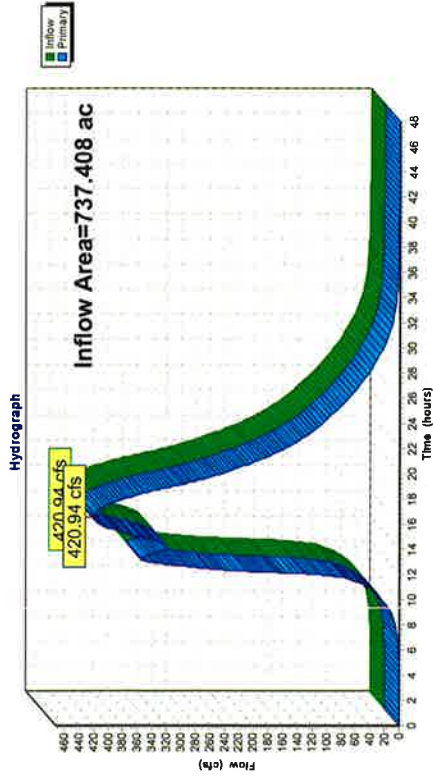
Link POC-ON-S-2: POC-ON-S-2



Summary for Link POC-ON-S-3: POC-ON-S-3

Inflow Area = 737.408 ac, 1.85% Impervious, Inflow Depth > 5.33" for 25-Year, 24-Hour event
 Inflow = 420.94 cfs @ 16.60 hrs, Volume= 327.627 af
 Primary = 420.94 cfs @ 16.60 hrs, Volume= 327.627 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

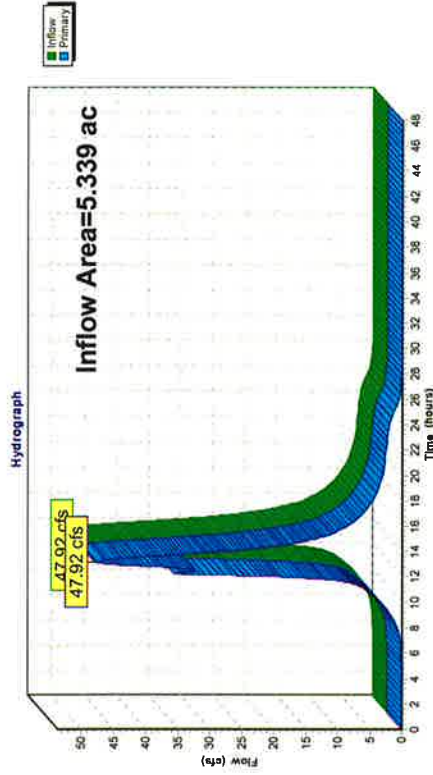
Link POC-ON-S-3: POC-ON-S-3



Summary for Link POC-ON-S-4a: POC-ON-S-4a

Inflow Area = 5.339 ac, 0.00% Impervious, Inflow Depth = 29.07" for 25-Year, 24-Hour event
 Inflow = 47.92 cfs @ 13.18 hrs, Volume= 12.935 af
 Primary = 47.92 cfs @ 13.18 hrs, Volume= 12.935 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

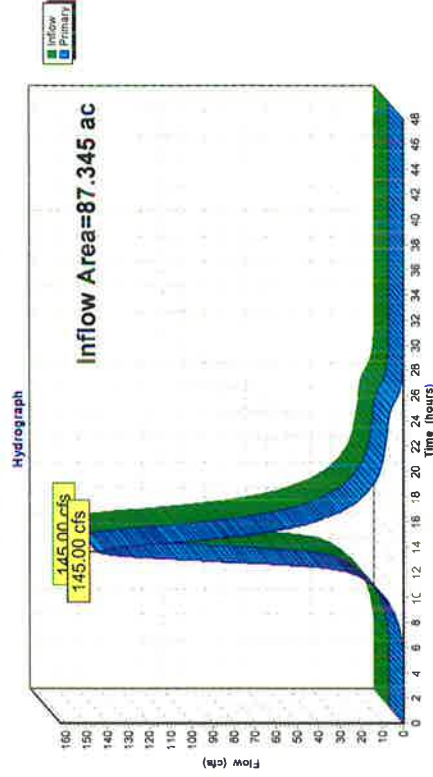
Link POC-ON-S-4a: POC-ON-S-4a



Summary for Link POC-ON-S-4b: POC-ON-S-4b

Inflow Area = 87.345 ac, 0.00% Impervious, Inflow Depth = 5.94" for 25-Year, 24-Hour event
 Inflow = 145.00 cfs @ 13.60 hrs, Volume= 43,266 af
 Primary = 145.00 cfs @ 13.60 hrs, Volume= 43,266 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

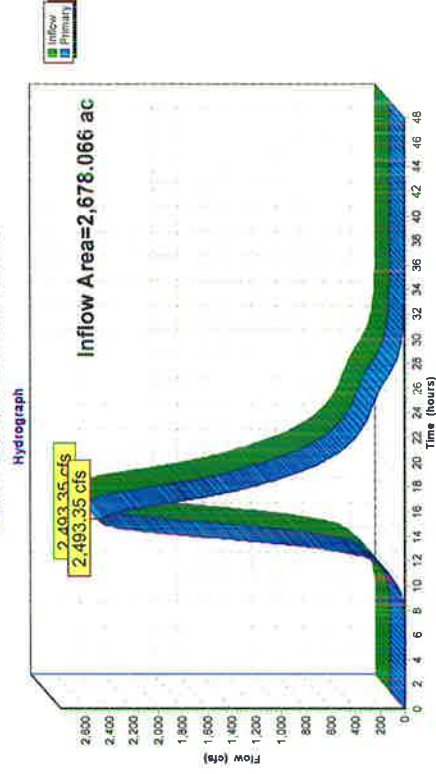
Link POC-ON-S-4b: POC-ON-S-4b



Summary for Link POC-ON-S-5: POC-ON-S-5

Inflow Area = 2,678.066 ac, 0.00% Impervious, Inflow Depth = 5.37" for 25-Year, 24-Hour event
 Inflow = 2,493.35 cfs @ 15.39 hrs, Volume= 1,197,497 af
 Primary = 2,493.35 cfs @ 15.39 hrs, Volume= 1,197,497 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-ON-S-5: POC-ON-S-5




ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

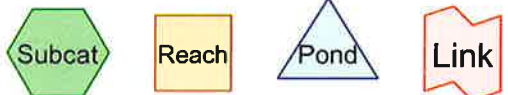
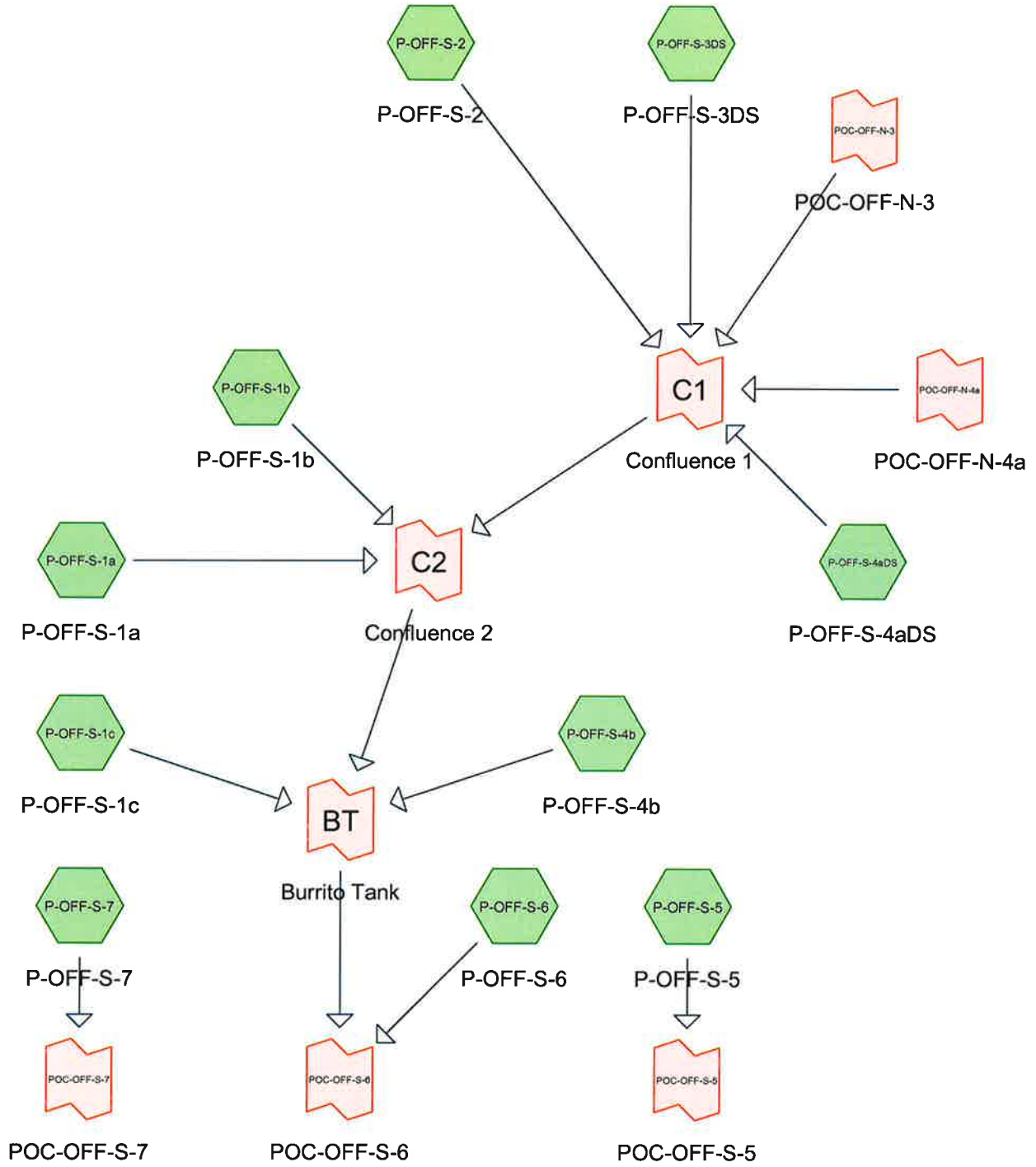
- 3. **POST-DEVELOPMENT CONDITIONS**
 - B. **SOUTH AREA**
 - II. **STORMWATER RUN-OFF MODEL**
 - 1. **MODEL DIAGRAM**
 - 2. **25-YEAR, 24-HOUR RESULTS**

Michael W. Oden



8-15-2017

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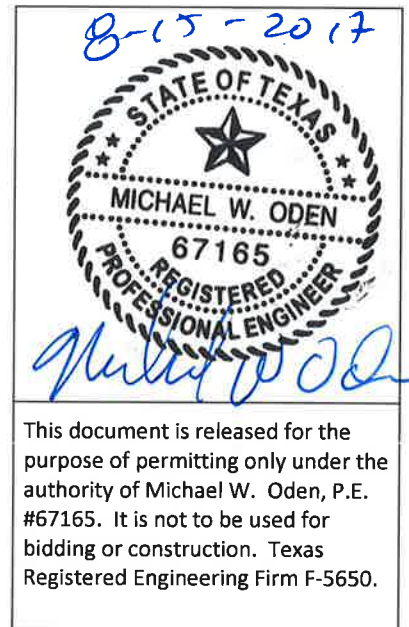
Routing Diagram for Post-Development Conditions Runoff - South
 Prepared by Chicago Bridge and Iron Company, Printed 8/9/2017
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ATTACHMENT III-C

APPENDIX III-C.4

HYDROCAD MODEL OUTPUT FILES

- 2. **POST-DEVELOPMENT CONDITIONS**
 - B. **SOUTH AREA**
 - II. **STORMWATER RUN-OFF MODEL**
 - 1. **MODEL DIAGRAM**
 - 2. **25-YEAR, 24-HOUR RESULTS**



Post-Development Conditions Runoff - South

Prepared by Chicago Bridge and Iron Company

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Printed 8/9/2017

Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1,358.608	72	Desert shrub range, Fair, HSG B (P-OFF-S-1b, P-OFF-S-2, P-OFF-S-4b, P-OFF-S-5)
936.150	81	Desert shrub range, Fair, HSG C (P-OFF-S-1a, P-OFF-S-1b)
6,665.832	86	Desert shrub range, Fair, HSG D (P-OFF-S-1a, P-OFF-S-1b, P-OFF-S-1c, P-OFF-S-2, P-OFF-S-3DS, P-OFF-S-4aDS, P-OFF-S-4b, P-OFF-S-5, P-OFF-S-6, P-OFF-S-7)
7.130	98	Water Surface, 0% imp, HSG D (P-OFF-S-2)
86.168	98	Water Surface, HSG D (P-OFF-S-1a, P-OFF-S-1b, P-OFF-S-1c, P-OFF-S-4aDS, P-OFF-S-4b)
9,053.888	84	TOTAL AREA

Summary for Subcatchment P-OFF-S-1a: P-OFF-S-1a

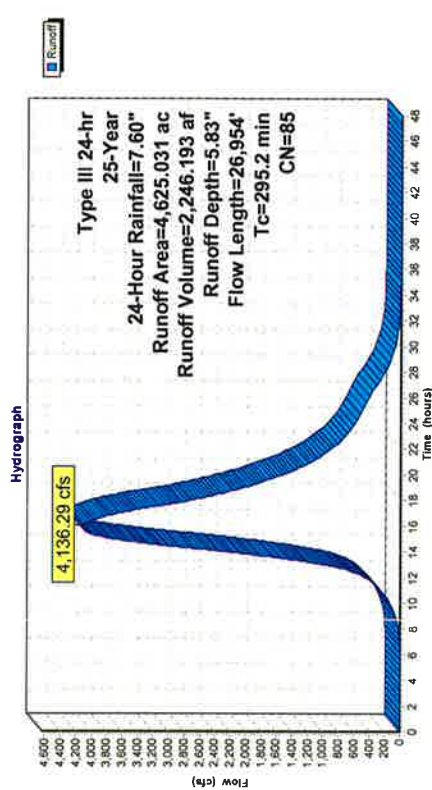
Runoff = 4,136.29 cfs @ 16.07 hrs, Volume= 2,246,193 af, Depth= 5.83"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
33.404	98	Water Surface, HSG D
790.820	81	Desert shrub range, Fair, HSG C
3,800.807	86	Desert shrub range, Fair, HSG D
4,625.031	85	Weighted Average
4,591.627	85	98.28% Pervious Area
33.404		0.72% Impervious Area

Tc Length (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.9	300	0.0167	0.24	
150.1	8,398	0.0087	0.93	
124.2	18,256	0.0025	2.45	
295.2	26,954			Total

Sheet Flow, Range	n	P2	P2=
Shallow Concentrated Flow, Nearly Bare & Untilled	0.130	3.75"	
Channel Flow, Area= 16.0 sf	Perim= 12.9'	r= 1.24'	n= 0.035

Subcatchment P-OFF-S-1a: P-OFF-S-1a



Summary for Subcatchment P-OFF-S-1b: P-OFF-S-1b

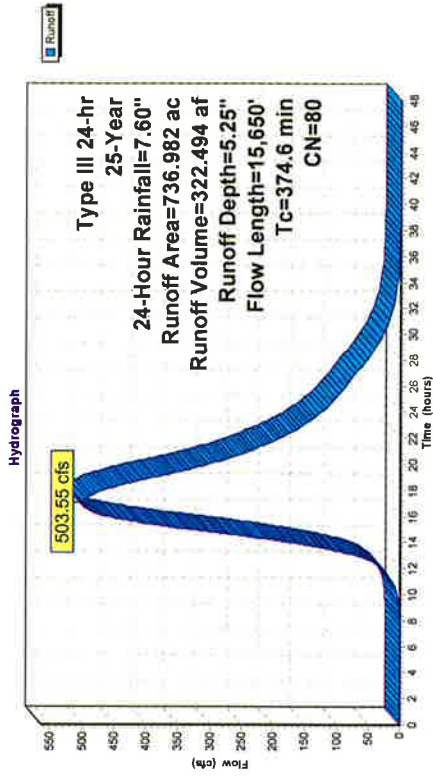
Runoff = 503.55 cfs @ 17.06 hrs, Volume= 322,494 af, Depth= 5.25"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
335.722	86	Desert shrub range, Fair, HSG D
145.330	81	Desert shrub range, Fair, HSG C
250.580	72	Desert shrub range, Fair, HSG B
5.350	98	Water Surface, HSG D
736.982	80	Weighted Average
731.632		99.27% Pervious Area
5.350		0.73% Impervious Area

Tc Length (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08	
310.2	15,350	0.0068	0.82	
374.6	15,650			Total

Sheet Flow, Range	n	P2	P2=
Shallow Concentrated Flow, Nearly Bare & Untilled	0.130	3.75"	

Subcatchment P-OFF-S-1b: P-OFF-S-1b



Summary for Subcatchment P-OFF-S-1c: P-OFF-S-1c

Runoff = 108.58 cfs @ 13.11 hrs, Volume= 26,635 af, Depth= 6.77"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

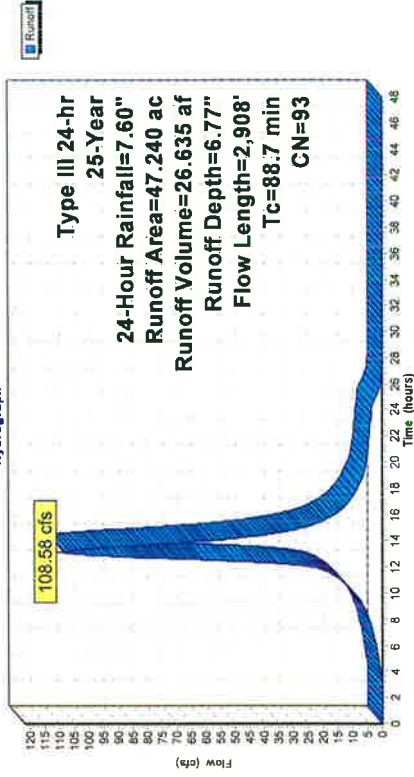
Area (ac)	CN	Description
28.351	98	Water Surface, HSG D
18.889	86	Desert shrub range, Fair, HSG D
47.240	93	Weighted Average
18.889	39	89% Pervious Area
28.351	60	01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.1	300	0.0067	0.17		
58.6	2,608	0.0055	0.74		
88.7	2,908	Total			

Sheet Flow,
 Range n= 0.130 P2= 3.75"
Shallow Concentrated Flow,
 Nearly Bare & Untilled Kv= 10.0 fps

Subcatchment P-OFF-S-1c: P-OFF-S-1c

Hydrograph



Summary for Subcatchment P-OFF-S-2: P-OFF-S-2

Runoff = 447.38 cfs @ 16.25 hrs, Volume= 250,672 af, Depth= 5.48"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

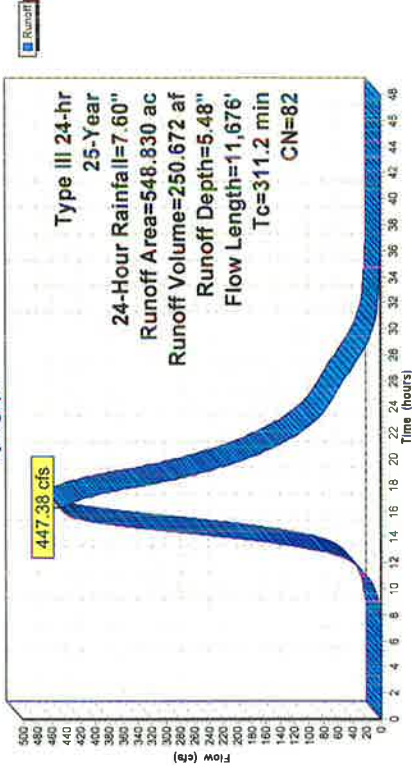
Area (ac)	CN	Description
388.450	86	Desert shrub range, Fair, HSG D
153.250	72	Desert shrub range, Fair, HSG B
7.130	98	Water Surface, 0% imp, HSG D
548.830	82	Weighted Average
548.830	100	00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		
246.8	11,376	0.0059	0.77		
311.2	11,676	Total			

Sheet Flow,
 Range n= 0.130 P2= 3.75"
Shallow Concentrated Flow,
 Nearly Bare & Untilled Kv= 10.0 fps

Subcatchment P-OFF-S-2: P-OFF-S-2

Hydrograph

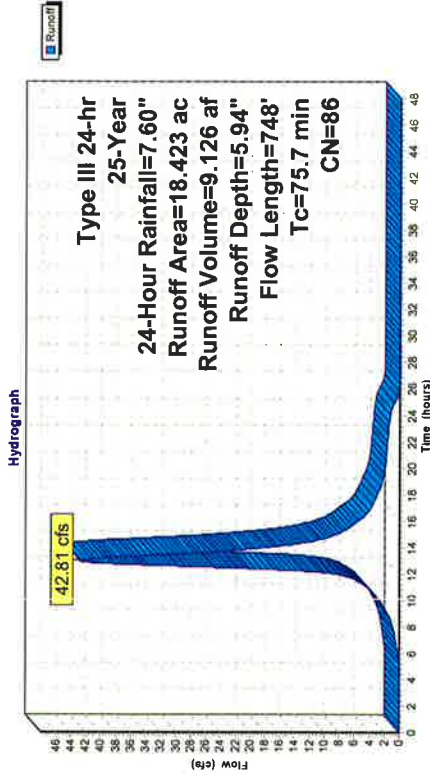


Summary for Subcatchment P-OFF-S-3DS: P-OFF-S-3DS

Runoff = 42.81 cfs @ 13.03 hrs, Volume= 9.126 af, Depth= 5.94"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description			
18.423	86	Desert shrub range, Fair, HSG D			
18.423	100.00%	Pervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
64.4	300	0.0010	0.08		
Sheet Flow, Range n= 0.130 P2= 3.75" Shallow Concentrated Flow, Nearly Bare & Untilled KV= 10.0 fps					
11.3	448	0.0044	0.66		
75.7	748	Total			

Subcatchment P-OFF-S-3DS: P-OFF-S-3DS

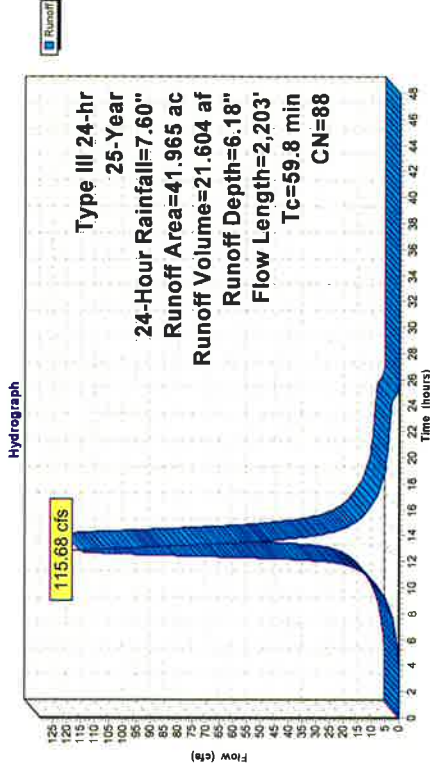


Summary for Subcatchment P-OFF-S-4aDS: P-OFF-S-4aDS

Runoff = 115.68 cfs @ 12.81 hrs, Volume= 21.604 af, Depth= 6.18"
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description			
36.090	86	Desert shrub range, Fair, HSG D			
5.875	98	Water Surface, HSG D			
41.965	88	Weighted Average			
36.090	86.00%	Pervious Area			
5.875	14.00%	Impervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
41.5	300	0.0030	0.12		
Sheet Flow, Range n= 0.130 P2= 3.75" Shallow Concentrated Flow, Nearly Bare & Untilled KV= 10.0 fps					
18.3	1,903	0.0300	1.73		
59.8	2,203	Total			

Subcatchment P-OFF-S-4aDS: P-OFF-S-4aDS



Summary for Subcatchment P-OFF-S-4b: P-OFF-S-4b

Runoff = 218.46 cfs @ 15.25 hrs, Volume= 105,321 af, Depth= 6.06"

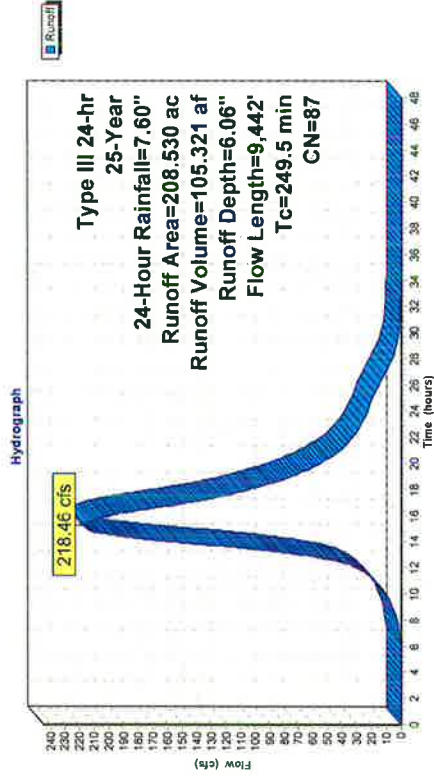
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
193.925	86	Desert shrub range, Fair, HSG D
1.517	72	Desert shrub range, Fair, HSG B
13.188	98	Water Surface, HSG D
208.530	87	Weighted Average
195.342		93.68% Pervious Area
13.188		6.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.6	300	0.0070	0.17		
219.9	9,142	0.0048	0.69		
249.5	9,442	Total			

Sheet Flow, Range	n	P2= 3.75"
Shallow Concentrated Flow, Nearly Bare & Untilled	0.130	3.75"
Nearly Bare & Untilled	Kv= 10.0	fps

Subcatchment P-OFF-S-4b: P-OFF-S-4b



Summary for Subcatchment P-OFF-S-5: P-OFF-S-5

Runoff = 2,493.35 cfs @ 15.39 hrs, Volume= 1,197,497 af, Depth= 5.57"

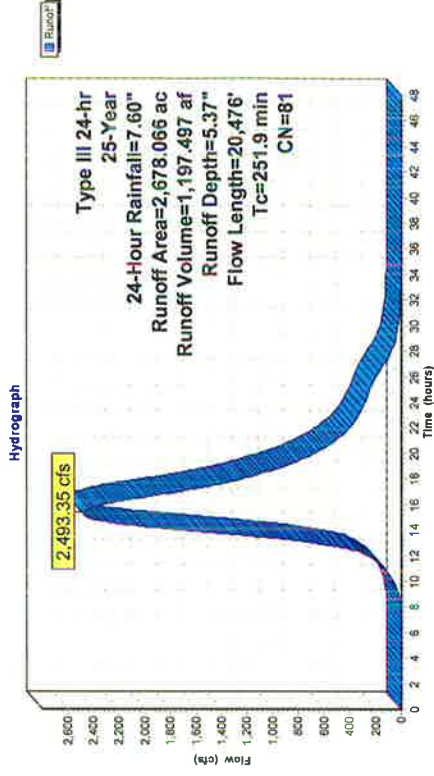
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description
953.281	72	Desert shrub range, Fair, HSG B
1,724.805	86	Desert shrub range, Fair, HSG D
2,678.066	81	Weighted Average
2,678.066		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.9	300	0.0333	0.32		
164.1	9,183	0.0087	0.93		
71.9	10,993	0.0027	2.55		
251.9	20,476	Total			

Sheet Flow, Range	n	P2= 3.75"
Shallow Concentrated Flow, Nearly Bare & Untilled	0.130	3.75"
Nearly Bare & Untilled	Kv= 10.0	fps
Channel Flow, Area= 16.0 sf, Perim= 12.9'	r= 1.24'	r= 0.035

Subcatchment P-OFF-S-5: P-OFF-S-5



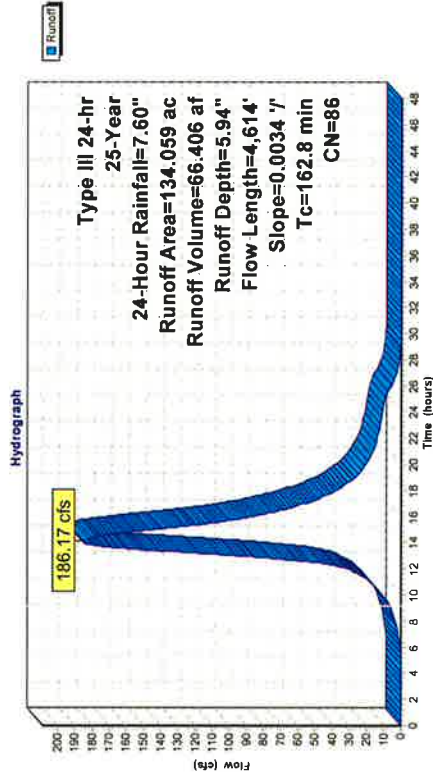
Summary for Subcatchment P-OFF-S-6: P-OFF-S-6

Runoff = 186.17 cfs @ 14.11 hrs, Volume= 66,406 af, Depth= 5.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description		
134.059	86	Desert shrub range, Fair, HSG D		
134.059	100.00%	Pervious Area		
Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
39.5	300	0.0054	0.13	
Sheet Flow, Range n= 0.130 P2= 3.75"				
123.3	4,314	0.0054	0.58	Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps
162.8	4,614	Total		

Subcatchment P-OFF-S-6: P-OFF-S-6



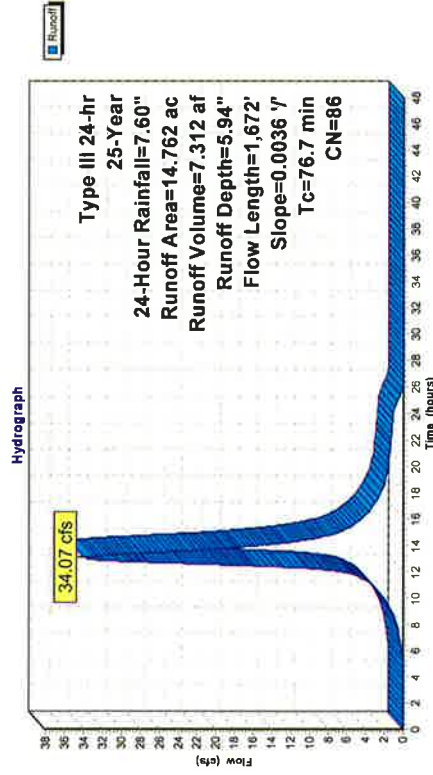
Summary for Subcatchment P-OFF-S-7: P-OFF-S-7

Runoff = 34.07 cfs @ 13.03 hrs, Volume= 7,312 af, Depth= 5.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year, 24-Hour Rainfall=7.60"

Area (ac)	CN	Description		
14.762	86	Desert shrub range, Fair, HSG D		
14.762	100.00%	Pervious Area		
Tc (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.6	300	0.0036	0.13	
Sheet Flow, Range n= 0.130 P2= 3.75"				
38.1	1,372	0.0036	0.60	Shallow Concentrated Flow, Nearly Bare & Untilled Kv= 10.0 fps
76.7	1,672	Total		

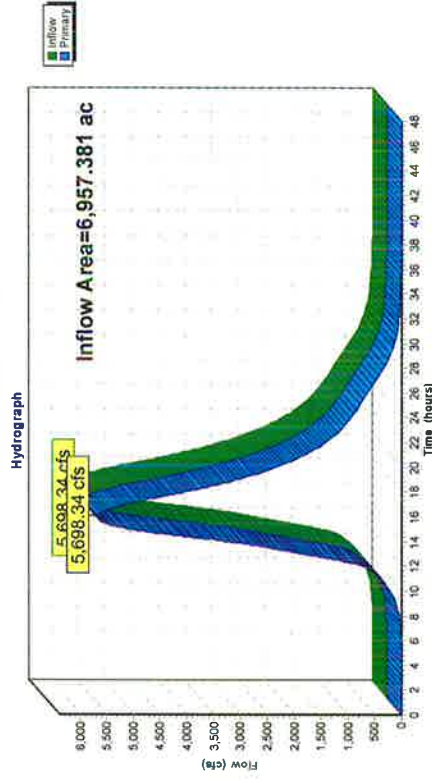
Subcatchment P-OFF-S-7: P-OFF-S-7



Summary for Link BT: Burrrito Tank

Inflow Area = 6,957.381 ac, 1.43% Impervious, Inflow Depth = 5.72" for 25-Year, 24-Hour event
 Inflow = 5,698.34 cfs @ 16.07 hrs, Volume= 3,316,480 af
 Primary = 5,698.34 cfs @ 16.07 hrs, Volume= 3,316,480 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

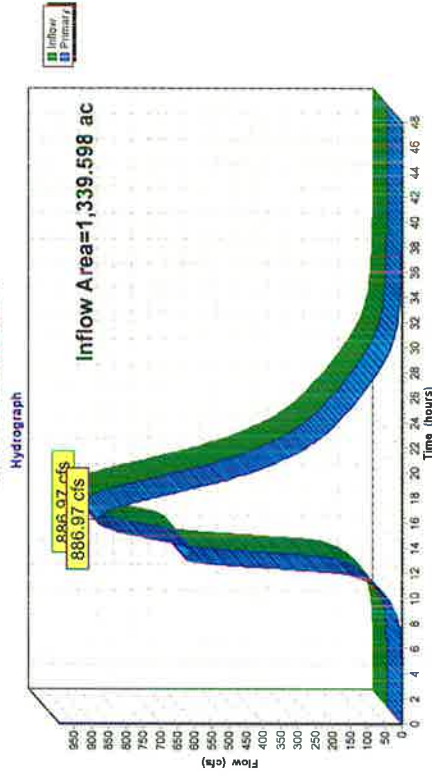
Link BT: Burrrito Tank



Summary for Link C1: Confluence 1

Inflow Area = 1,339.598 ac, 1.46% Impervious, Inflow Depth = 5.52" for 25-Year, 24-Hour event
 Inflow = 886.97 cfs @ 16.25 hrs, Volume= 615,837 af
 Primary = 886.97 cfs @ 16.25 hrs, Volume= 615,837 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

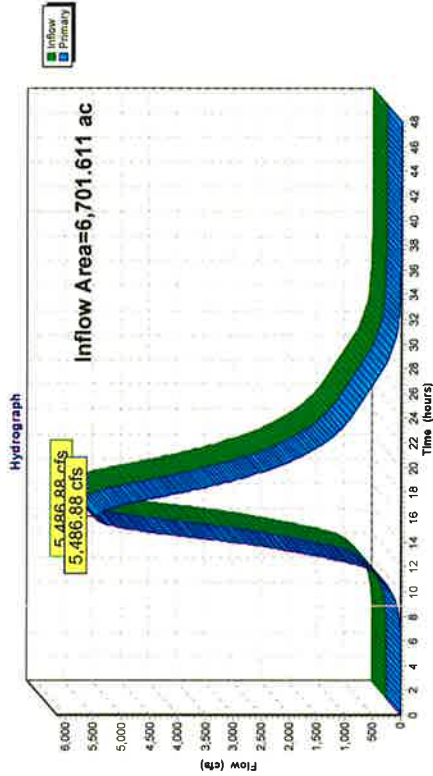
Link C1: Confluence 1



Summary for Link C2: Confluence 2

Inflow Area = 6,701.611 ac, 0.87% Impervious, Inflow Depth = 5.70" for 25-Year, 24-Hour event
 Inflow = 5,486.88 cfs @ 16.07 hrs, Volume= 3,184,524 af
 Primary = 5,486.88 cfs @ 16.07 hrs, Volume= 3,184,524 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link C2: Confluence 2

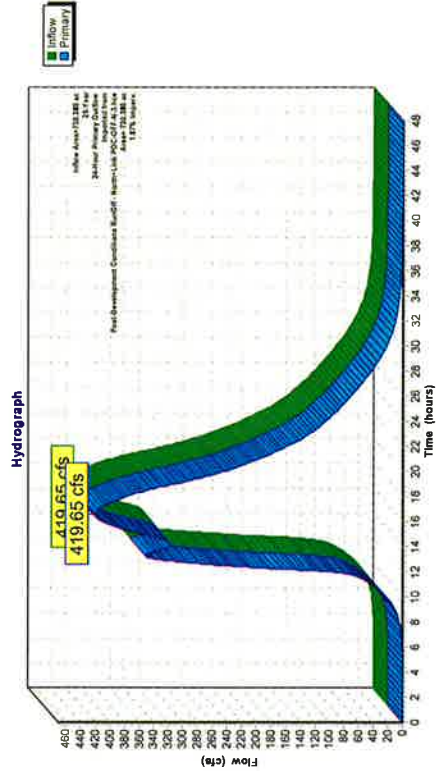


Summary for Link POC-OFF-N-3: POC-OFF-N-3

Inflow Area = 730.380 ac, 1.87% Impervious, Inflow Depth > 5.33" for 25-Year, 24-Hour event
 Inflow = 419.65 cfs @ 16.60 hrs, Volume= 324,145 af
 Primary = 419.65 cfs @ 16.60 hrs, Volume= 324,145 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Primary Outflow Imported from Post-Development Conditions RunOff - North-Link POC-OFF-N-3.h

Link POC-OFF-N-3: POC-OFF-N-3

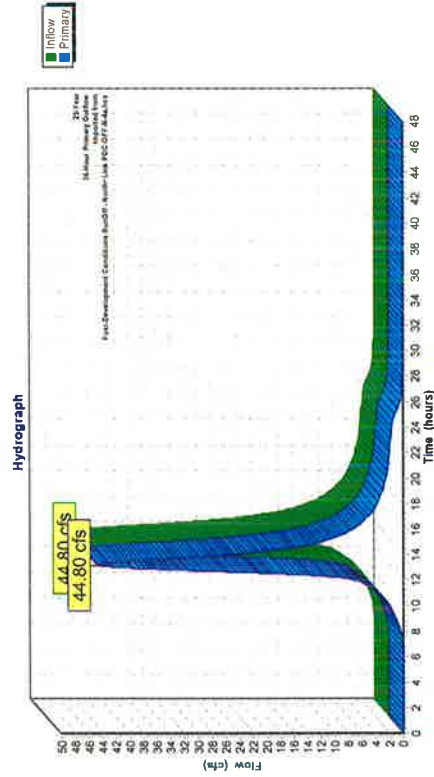


Summary for Link POC-OFF-N-4a: POC-OFF-N-4a

Inflow = 44.80 cfs @ 13.21 hrs, Volume= 10,290 af
 Primary = 44.80 cfs @ 13.21 hrs, Volume= 10,290 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

25-Year, 24-Hour Primary Outflow imported from Post-Development Conditions RunOff - North-Link POC-OFF-N-4a

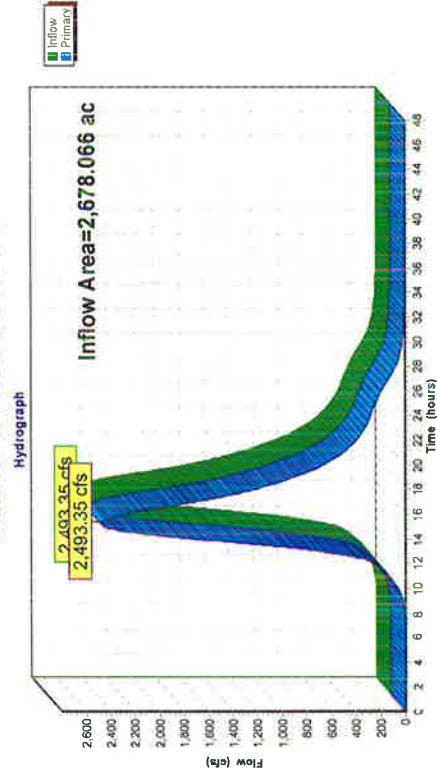
Link POC-OFF-N-4a: POC-OFF-N-4a



Summary for Link POC-OFF-S-5: POC-OFF-S-5

Inflow Area = 2,678.066 ac, 0.00% impervious, Inflow Depth = 5.37" for 25-Year, 24-Hour event
 Inflow = 2,493.35 cfs @ 15.39 hrs, Volume= 1,197.497 af
 Primary = 2,493.35 cfs @ 15.39 hrs, Volume= 1,197.497 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

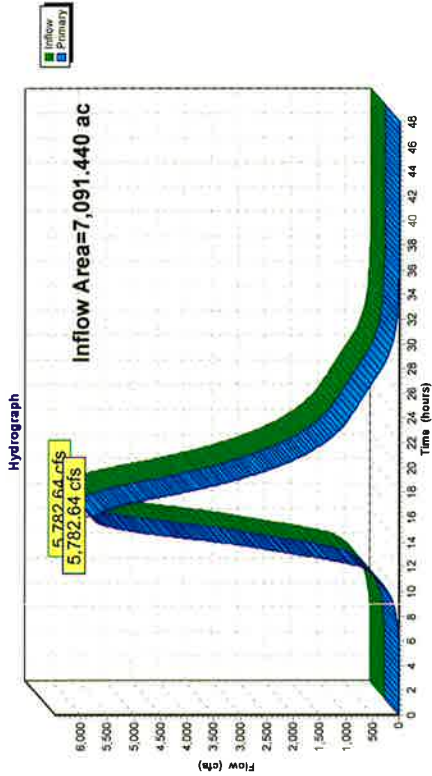
Link POC-OFF-S-5: POC-OFF-S-5



Summary for Link POC-OFF-S-6: POC-OFF-S-6

Inflow Area = 7,091.440 ac, 1.41% Impervious, Inflow Depth = 5.72" for 25-Year, 24-Hour event
 Inflow = 5,782.64 cfs @ 16.07 hrs, Volume= 3,382,886 af
 Primary = 5,782.64 cfs @ 16.07 hrs, Volume= 3,382,886 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-OFF-S-6: POC-OFF-S-6



Summary for Link POC-OFF-S-7: POC-OFF-S-7

Inflow Area = 14,762 ac, 0.00% Impervious, Inflow Depth = 5.94" for 25-Year, 24-Hour event
 Inflow = 34.07 cfs @ 13.03 hrs, Volume= 7,312 af
 Primary = 34.07 cfs @ 13.03 hrs, Volume= 7,312 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link POC-OFF-S-7: POC-OFF-S-7

