



# Analyzer Report

## Drainage Structure Analyzer

### Culvert Hydraulic Analysis

Date: Friday, January 27, 2012 11:04:59 AM

#### Input Data

Shape	Circular
Material	RC C76-A
Roughness	0.013000
Entrance Edge	Smooth tapered inlet throat
Number of Barrels	1
Length	36.0000 ft
Slope	0.5600%
Tailwater	0.0000 ft
Inlet Control Equation	Entrance Loss
Size (W x T):	60.00 x 5.0000
Flow Rate	106.0000 cfs

#### Output Results

Flow Rate	106.0000 cfs
Control	Outlet
Capacity	194.8974 cfs
Outlet Velocity	8.8506 ft/s
Depth At outlet	3.9670 ft
Headwater	4.3682 ft
Critical Depth	2.9340 ft
Normal Depth	2.6284 ft
Size (W x T):	60.00 x 5.0000

## Analyzer Report

## =====

## Drainage Structure Analyzer

## Culvert Hydraulic Analysis

Date: Friday, January 27, 2012 11:05:59 AM

## =====

## Input Data

Shape	Circular
Material	RC C76-A
Roughness	0.013000
Entrance Edge	Smooth tapered inlet throat
Number of Barrels	1
Length	98.3600 ft
Slope	2.6636%
Tailwater	0.0000 ft
Inlet Control Equation	Entrance Loss
Size (W x T):	48.00 x 4.0000
Flow Rate	217.9200 cfs

## -----

## Output Results

Flow Rate	217.9200 cfs
Control	Inlet
Capacity	234.4336 cfs
Manning's Velocity	21.1886 ft/s
Headwater	9.4010 ft
Critical Depth	3.8890 ft
Normal Depth	3.0509 ft
Size (W x T):	48.00 x 4.0000

SD network analysis.txt

Design Log

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InRoads Storm & Sanitary Design Log

Drainage File: P:\20110349\CDP\Control\Data\27\_29-inlets 1cfs.sdb

Design File: P:\20110349\CDP\Design\20110349utility\_27-29.dgn

Display Log: P:\20110349\CDP\Design\design.log

Date: Wednesday, January 25, 2012 5:02:02 PM

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Designing inlet IN5

WARNING: Inlet forced to capture all flow, ignoring capacity calculations.

Results:

Gutter Flow:	0.1000 cfs	Flow From:	Injected Storm
Status:	Fixed		
Inlet Length:	6.5000 ft	Inlet Width:	2.0000 ft
Flow Downstream:	0.1000 cfs	Bypass To:	0.0000 cfs
Percent Cap:	100.0000 %	Capacity:	0.0000 cfs
Spread:	0.4196 ft		
Depth in Gutter:	0.1678 ft	Assigned Bypass:	N/A

Designing pipe SDP1

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:

Total Flow:	0.1000 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0459 ft/ft
Pipe Width:	18.0000 in	Pipe Height:	18.0000 in
Depth of Flow:	0.0723 ft	Flow Status:	Partial
Critical Depth:	0.1150 ft	Capacity:	22.4978 cfs
Velocity:	3.1901 ft/s		
Froude Number:	2.5489	Flow Regime:	SuperCritical

Designing inlet IN4

WARNING: Inlet forced to capture all flow, ignoring capacity calculations.

WARNING: Pipe Too large for valid connection to inlet.

Results:

Gutter Flow:	0.1000 cfs	Flow From:	Injected Storm
Status:	Fixed		
Inlet Length:	6.5000 ft	Inlet Width:	2.0000 ft
Flow Downstream:	0.2000 cfs	Bypass To:	0.0000 cfs
Percent Cap:	100.0000 %	Capacity:	0.0000 cfs
Spread:	0.4196 ft		
Depth in Gutter:	0.1678 ft	Assigned Bypass:	N/A

Designing pipe SDP8

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:

Total Flow:	0.2000 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0864 ft/ft
Pipe Width:	24.0000 in	Pipe Height:	24.0000 in
Depth of Flow:	0.0803 ft	Flow Status:	Partial
Critical Depth:	0.1520 ft	Capacity:	66.5081 cfs
Velocity:	4.7098 ft/s		
Froude Number:	3.5739	Flow Regime:	SuperCritical

WARNING: Pipe Too large for valid connection to inlet.

Designing inlet IN6

WARNING: Inlet forced to capture all flow, ignoring capacity calculations.

Results:

Gutter Flow:	0.1000 cfs	Flow From:	Injected Storm
Status:	Fixed		
Inlet Length:	6.5000 ft	Inlet Width:	2.0000 ft
Flow Downstream:	0.1000 cfs	Bypass To:	0.0000 cfs
Percent Cap:	100.0000 %	Capacity:	0.0000 cfs
Spread:	0.4196 ft		
Depth in Gutter:	0.1678 ft	Assigned Bypass:	N/A

Designing pipe SDP31

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:

Total Flow:	0.1000 cfs	SD network analysis.txt
		Flow From: Upstream
Status:	Fixed	Slope: 0.0459 ft/ft
Pipe Width:	18.0000 in	Pipe Height: 18.0000 in
Depth of Flow:	0.0723 ft	Flow Status: Partial
Critical Depth:	0.1150 ft	Capacity: 22.5116 cfs
Velocity:	3.1901 ft/s	
Froude Number:	2.5489	Flow Regime: SuperCritical

#### Designing inlet IN7

WARNING: Inlet forced to capture all flow, ignoring capacity calculations.  
 WARNING: Pipe Too large for valid connection to inlet.

Results:		
Gutter Flow:	0.1000 cfs	Flow From: Injected Storm
Status:	Fixed	
Inlet Length:	6.5000 ft	Inlet Width: 2.0000 ft
Flow Downstream:	0.2000 cfs	Bypass To: 0.0000 cfs
Percent Cap:	100.0000 %	Capacity: 0.0000 cfs
Spread:	0.4196 ft	
Depth in Gutter:	0.1678 ft	Assigned Bypass: N/A

#### Designing pipe SDP32

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:		
Total Flow:	0.2000 cfs	Flow From: Upstream
Status:	Fixed	Slope: 0.0385 ft/ft
Pipe Width:	24.0000 in	Pipe Height: 24.0000 in
Depth of Flow:	0.0970 ft	Flow Status: Partial
Critical Depth:	0.1520 ft	Capacity: 44.3795 cfs
Velocity:	3.5578 ft/s	
Froude Number:	2.4541	Flow Regime: SuperCritical

WARNING: Pipe Too large for valid connection to inlet.

#### Designing manhole SDMH19

Results:		
Total Flow:	0.4000 cfs	Flow From: Upstream
Status:	Fixed	
Chamber Width:	6.0000 ft	Chamber Length: 6.0000 ft

#### Designing pipe SDP9

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:		
Total Flow:	0.4000 cfs	Flow From: Upstream
Status:	Fixed	Slope: 0.0312 ft/ft
Pipe Width:	36.0000 in	Pipe Height: 36.0000 in
Depth of Flow:	0.1275 ft	Flow Status: Partial
Critical Depth:	0.1940 ft	Capacity: 117.7762 cfs
Velocity:	3.8495 ft/s	
Froude Number:	2.3176	Flow Regime: SuperCritical

#### Designing pipe SDP33

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:		
Total Flow:	260.9000 cfs	Flow From: Injected Storm
Status:	Fixed	Slope: 0.0149 ft/ft
Pipe Width:	48.0000 in	Pipe Height: 48.0000 in
Depth of Flow:	4.0000 ft	Flow Status: Full
Critical Depth:	4.0000 ft	Capacity: 175.3907 cfs
Velocity:	20.7618 ft/s	
Froude Number:	0.0000	Flow Regime: Subcritical

#### Designing manhole SDMH18

Results:		
Total Flow:	261.3000 cfs	Flow From: Upstream
Status:	Fixed	
Chamber Width:	8.0000 ft	Chamber Length: 8.0000 ft

#### Designing pipe SDP10

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:		
Total Flow:	261.3000 cfs	Flow From: Upstream

## SD network analysis.txt

Status: Fixed  
 Pipe width: 48.0000 in  
 Depth of Flow: 3.2344 ft  
 Critical Depth: 3.9450 ft  
 Velocity: 24.0018 ft/s  
 Froude Number: 2.2752

Slope: 0.0339 ft/ft  
 Pipe Height: 48.0000 in  
 Flow Status: Partial  
 Capacity: 264.5786 cfs  
 Flow Regime: SuperCritical

## Designing manhole SDMH17

## Results:

Total Flow: 261.3000 cfs      Flow From: Upstream  
 Status: Fixed  
 Chamber width: 6.0000 ft      Chamber Length: 6.0000 ft

## Designing pipe SDP11

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow: 261.3000 cfs      Flow From: Upstream  
 Status: Fixed      Slope: 0.0342 ft/ft  
 Pipe width: 48.0000 in      Pipe Height: 48.0000 in  
 Depth of Flow: 3.2189 ft      Flow Status: Partial  
 Critical Depth: 3.9450 ft      Capacity: 265.7939 cfs  
 Velocity: 24.1102 ft/s  
 Froude Number: 2.2993      Flow Regime: SuperCritical

## Designing manhole SDMH16

## Results:

Total Flow: 261.3000 cfs      Flow From: Upstream  
 Status: Fixed  
 Chamber width: 6.0000 ft      Chamber Length: 6.0000 ft

## Designing pipe SDP12

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow: 261.3000 cfs      Flow From: Upstream  
 Status: Fixed      Slope: 0.0377 ft/ft  
 Pipe width: 48.0000 in      Pipe Height: 48.0000 in  
 Depth of Flow: 3.0724 ft      Flow Status: Partial  
 Critical Depth: 3.9450 ft      Capacity: 278.9148 cfs  
 Velocity: 25.2277 ft/s  
 Froude Number: 2.5394      Flow Regime: SuperCritical

## Designing manhole SDMH15

## Results:

Total Flow: 261.3000 cfs      Flow From: Upstream  
 Status: Fixed  
 Chamber width: 6.0000 ft      Chamber Length: 6.0000 ft

## Designing pipe SDP13

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow: 261.3000 cfs      Flow From: Upstream  
 Status: Fixed      Slope: 0.0356 ft/ft  
 Pipe width: 48.0000 in      Pipe Height: 48.0000 in  
 Depth of Flow: 3.1555 ft      Flow Status: Partial  
 Critical Depth: 3.9450 ft      Capacity: 271.1046 cfs  
 Velocity: 24.5729 ft/s  
 Froude Number: 2.4005      Flow Regime: SuperCritical

## Designing inlet IN14

WARNING: Spread is greater than maximum spread (2.5000 ft.)

WARNING: Inlet forced to capture all flow, ignoring capacity calculations.

## Results:

Gutter Flow: 0.1000 cfs      Flow From: Injected Storm  
 Status: Fixed  
 Inlet Length: 6.5000 ft      Inlet width: 2.0000 ft  
 Flow Downstream: 0.1000 cfs      Bypass To: 0.0000 cfs  
 Percent cap: 100.0000 %      Capacity: 0.0000 cfs  
 Spread: 3.0155 ft  
 Depth in Gutter: 0.0514 ft      Assigned Bypass: N/A

## SD network analysis.txt

## Designing pipe SDP39

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	0.1000 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0406 ft/ft
Pipe Width:	18.0000 in	Pipe Height:	18.0000 in
Depth of Flow:	0.0744 ft	Flow Status:	Partial
Critical Depth:	0.1150 ft	Capacity:	21.1557 cfs
Velocity:	3.0575 ft/s	Flow Regime:	SuperCritical
Froude Number:	2.4078		

## Designing inlet IN11

WARNING: Inlet forced to capture all flow, ignoring capacity calculations.  
WARNING: Pipe Too large for valid connection to inlet.

## Results:

Gutter Flow:	0.1000 cfs	Flow From:	Injected Storm
Status:	Fixed	Inlet Width:	2.0000 ft
Inlet Length:	6.5000 ft	Bypass To:	0.0000 cfs
Flow Downstream:	0.2000 cfs	Capacity:	0.0000 cfs
Percent Cap:	100.0000 %	Assigned Bypass:	N/A
Spread:	2.4244 ft		
Depth in Gutter:	0.0586 ft		

## Designing pipe SDP29

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	0.2000 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0894 ft/ft
Pipe Width:	24.0000 in	Pipe Height:	24.0000 in
Depth of Flow:	0.0797 ft	Flow Status:	Partial
Critical Depth:	0.1520 ft	Capacity:	67.6583 cfs
Velocity:	4.7626 ft/s	Flow Regime:	SuperCritical
Froude Number:	3.6276		

WARNING: Pipe Too large for valid connection to inlet.

## Designing inlet IN3

WARNING: Inlet forced to capture all flow, ignoring capacity calculations.

## Results:

Gutter Flow:	0.1000 cfs	Flow From:	Injected Storm
Status:	Fixed	Inlet Width:	2.0000 ft
Inlet Length:	6.5000 ft	Bypass To:	0.0000 cfs
Flow Downstream:	0.1000 cfs	Capacity:	0.0000 cfs
Percent Cap:	100.0000 %	Assigned Bypass:	N/A
Spread:	0.5781 ft		
Depth in Gutter:	0.1385 ft		

## Designing pipe SDP38

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	0.1000 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0406 ft/ft
Pipe Width:	18.0000 in	Pipe Height:	18.0000 in
Depth of Flow:	0.0744 ft	Flow Status:	Partial
Critical Depth:	0.1150 ft	Capacity:	21.1541 cfs
Velocity:	3.0575 ft/s	Flow Regime:	SuperCritical
Froude Number:	2.4078		

## Designing inlet IN8

WARNING: Inlet forced to capture all flow, ignoring capacity calculations.  
WARNING: Pipe Too large for valid connection to inlet.

## Results:

Gutter Flow:	0.1000 cfs	Flow From:	Injected Storm
Status:	Fixed	Inlet Width:	2.0000 ft
Inlet Length:	6.5000 ft	Bypass To:	0.0000 cfs
Flow Downstream:	0.2000 cfs	Capacity:	0.0000 cfs
Percent Cap:	100.0000 %	Assigned Bypass:	N/A
Spread:	0.4196 ft		
Depth in Gutter:	0.1678 ft		

## Designing pipe SDP30

WARNING: Full flow velocity is greater than maximum (10.0000)

## SD network analysis.txt

## Results:

Total Flow:	0.2000 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0506 ft/ft
Pipe Width:	24.0000 in	Pipe Height:	24.0000 in
Depth of Flow:	0.0910 ft	Flow Status:	Partial
Critical Depth:	0.1520 ft	Capacity:	50.8925 cfs
Velocity:	3.9113 ft/s	Flow Regime:	SuperCritical
Froude Number:	2.7864		

WARNING: Pipe Too large for valid connection to inlet.  
Designing manhole SDMH10

## Results:

Total Flow:	261.7000 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber width:	8.0000 ft	Chamber Length:	8.0000 ft

## Designing pipe SDP40

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	261.7000 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0267 ft/ft
Pipe Width:	54.0000 in	Pipe Height:	54.0000 in
Depth of Flow:	3.0835 ft	Flow Status:	Partial
Critical Depth:	4.3100 ft	Capacity:	321.5418 cfs
Velocity:	22.5299 ft/s	Flow Regime:	SuperCritical
Froude Number:	2.3827		

## Designing manhole SDMH1

## Results:

Total Flow:	261.7000 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber width:	8.0000 ft	Chamber Length:	8.0000 ft

## Designing pipe SDP35

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	213.6780 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0258 ft/ft
Pipe Width:	48.0000 in	Pipe Height:	48.0000 in
Depth of Flow:	3.0384 ft	Flow Status:	Partial
Critical Depth:	3.8800 ft	Capacity:	230.9331 cfs
Velocity:	20.8627 ft/s	Flow Regime:	SuperCritical
Froude Number:	2.1250		

## Designing manhole SDMH8

## Results:

Total Flow:	213.6780 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber width:	6.0000 ft	Chamber Length:	6.0000 ft

## Designing pipe SDP16

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	213.6780 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0328 ft/ft
Pipe Width:	48.0000 in	Pipe Height:	48.0000 in
Depth of Flow:	2.7600 ft	Flow Status:	Partial
Critical Depth:	3.8800 ft	Capacity:	260.1014 cfs
Velocity:	23.1035 ft/s	Flow Regime:	SuperCritical
Froude Number:	2.5763		

## Designing manhole SDMH6

## Results:

Total Flow:	213.6780 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber width:	6.0000 ft	Chamber Length:	6.0000 ft

## SD network analysis.txt

Designing pipe SDP17

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	213.6780 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0316 ft/ft
Pipe Width:	48.0000 in	Pipe Height:	48.0000 in
Depth of Flow:	2.7985 ft	Flow Status:	Partial
Critical Depth:	3.8800 ft	Capacity:	255.3863 cfs
Velocity:	22.7546 ft/s	Flow Regime:	SuperCritical
Froude Number:	2.5070		

Designing manhole SDMH4

## Results:

Total Flow:	213.6780 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber Width:	8.0000 ft	Chamber Length:	8.0000 ft

Designing pipe SDP18

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	213.6780 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0090 ft/ft
Pipe Width:	54.0000 in	Pipe Height:	54.0000 in
Depth of Flow:	4.5000 ft	Flow Status:	Full
Critical Depth:	4.5000 ft	Capacity:	186.6381 cfs
Velocity:	13.4352 ft/s	Flow Regime:	Subcritical
Froude Number:	0.0000		

Designing pipe SDP6

## Results:

Total Flow:	48.0219 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0067 ft/ft
Pipe Width:	36.0000 in	Pipe Height:	36.0000 in
Depth of Flow:	2.1799 ft	Flow Status:	Partial
Critical Depth:	2.2560 ft	Capacity:	54.6969 cfs
Velocity:	8.7280 ft/s	Flow Regime:	SuperCritical
Froude Number:	1.0727		

Designing manhole SDMH2

## Results:

Total Flow:	48.0219 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber Width:	4.0000 ft	Chamber Length:	4.0000 ft

Designing pipe SDP4

## Results:

Total Flow:	48.0219 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0050 ft/ft
Pipe Width:	36.0000 in	Pipe Height:	36.0000 in
Depth of Flow:	2.5093 ft	Flow Status:	Partial
Critical Depth:	2.2560 ft	Capacity:	47.1919 cfs
Velocity:	7.6042 ft/s	Flow Regime:	Subcritical
Froude Number:	0.7947		

Designing manhole SDMH3

## Results:

Total Flow:	48.0219 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber Width:	4.0000 ft	Chamber Length:	4.0000 ft

Designing pipe SDP3

## Results:

Total Flow:	48.0219 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0050 ft/ft
Pipe Width:	36.0000 in	Pipe Height:	36.0000 in
Depth of Flow:	2.5184 ft	Flow Status:	Partial
Critical Depth:	2.2560 ft	Capacity:	47.0551 cfs
Velocity:	7.5801 ft/s		

Froude Number: 0.7880

SD network analysis.txt  
Flow Regime: Subcritical

Designing pipe SDP-9-190

Results:

Total Flow:	106.0000 cfs	Flow From:	Injected Storm
Status:	Fixed	Slope:	0.0056 ft/ft
Pipe width:	60.0000 in	Pipe Height:	60.0000 in
Depth of Flow:	2.6282 ft	Flow Status:	Partial
Critical Depth:	2.9340 ft	Capacity:	194.9266 cfs
Velocity:	10.1351 ft/s		
Froude Number:	1.2347	Flow Regime:	SuperCritical

DRAINAGE STRUCTURE

← 'S-1'

Designing manhole SDMH5

Results:

Total Flow:	154.0220 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber width:	8.0000 ft	Chamber Length:	8.0000 ft

Designing pipe SDP2

Results:

Total Flow:	154.0220 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0050 ft/ft
Pipe width:	60.0000 in	Pipe Height:	60.0000 in
Depth of Flow:	3.4971 ft	Flow Status:	Partial
Critical Depth:	3.5580 ft	Capacity:	184.1598 cfs
Velocity:	10.5006 ft/s		
Froude Number:	1.0350	Flow Regime:	Critical

Designing inlet IN-9-18

WARNING: Spread is greater than maximum spread (2.5000 ft )  
WARNING: Inlet forced to capture all flow, ignoring capacity calculations.  
WARNING: Pipe Too large for valid connection to inlet.

Results:

Gutter Flow:	7.8800 cfs	Flow From:	Injected Storm
Status:	Fixed		
Inlet Length:	6.5000 ft	Inlet width:	2.0000 ft
Flow Downstream:	7.8800 cfs	Bypass To:	0.0000 cfs
Percent Cap:	100.0000 %	Capacity:	0.0000 cfs
Spread:	7.7375 ft		
Depth in Gutter:	0.4012 ft	Assigned Bypass:	N/A

Designing pipe SDP-9-193

Results:

Total Flow:	7.8800 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0215 ft/ft
Pipe width:	18.0000 in	Pipe Height:	18.0000 in
Depth of Flow:	0.7598 ft	Flow Status:	Partial
Critical Depth:	1.0870 ft	Capacity:	15.4160 cfs
Velocity:	8.7709 ft/s		
Froude Number:	1.9981	Flow Regime:	SuperCritical

WARNING: Pipe Too large for valid connection to inlet.

Designing inlet IN-9-17

WARNING: Spread is greater than maximum spread (2.5000 ft )  
WARNING: Inlet forced to capture all flow, ignoring capacity calculations.  
WARNING: Pipe Too large for valid connection to inlet.

Results:

Gutter Flow:	10.2700 cfs	Flow From:	Injected Storm
Status:	Fixed		
Inlet Length:	6.5000 ft	Inlet width:	2.0000 ft
Flow Downstream:	10.2700 cfs	Bypass To:	0.0000 cfs
Percent Cap:	100.0000 %	Capacity:	0.0000 cfs
Spread:	8.5456 ft		
Depth in Gutter:	0.4431 ft	Assigned Bypass:	N/A

Designing pipe SDP5

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:

Total Flow:	10.2700 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0519 ft/ft

Pipe Width:	18.0000 in	SD network analysis.txt
Depth of Flow:	0.6866 ft	Pipe Height: 18.0000 in
Critical Depth:	1.2330 ft	Flow Status: Partial
Velocity:	13.0208 ft/s	Capacity: 23.9227 cfs
Froude Number:	3.1603	Flow Regime: SuperCritical

WARNING: Pipe Too large for valid connection to inlet.  
Designing manhole SDMH-9-49

Results:		
Total Flow:	18.1500 cfs	Flow From: Upstream
Status:	Fixed	
Chamber Width:	6.0000 ft	Chamber Length: 6.0000 ft

Designing pipe SDP-9-191

Results:		
Total Flow:	18.1500 cfs	Flow From: Upstream
Status:	Fixed	Slope: 0.0068 ft/ft
Pipe Width:	30.0000 in	Pipe Height: 30.0000 in
Depth of Flow:	1.3009 ft	Flow Status: Partial
Critical Depth:	1.4430 ft	Capacity: 33.9418 cfs
Velocity:	7.0299 ft/s	Flow Regime: SuperCritical
Froude Number:	1.2191	

Designing manhole SDMH-9-48

Results:		
Total Flow:	172.1720 cfs	Flow From: Upstream
Status:	Fixed	
Chamber Width:	8.0000 ft	Chamber Length: 8.0000 ft

Designing pipe SDP-9-189

Results:		
Total Flow:	172.1720 cfs	Flow From: Upstream
Status:	Fixed	Slope: 0.0039 ft/ft
Pipe Width:	60.0000 in	Pipe Height: 60.0000 in
Depth of Flow:	4.4700 ft	Flow Status: Partial
Critical Depth:	3.7610 ft	Capacity: 162.0104 cfs
Velocity:	9.2954 ft/s	Flow Regime: Subcritical
Froude Number:	0.6681	

Designing pipe SDP-9-188

Results:		
Total Flow:	172.1720 cfs	Flow From: Upstream
Status:	Fixed	Slope: 0.0050 ft/ft
Pipe Width:	60.0000 in	Pipe Height: 60.0000 in
Depth of Flow:	3.8333 ft	Flow Status: Partial
Critical Depth:	3.7610 ft	Capacity: 184.1607 cfs
Velocity:	10.6586 ft/s	Flow Regime: Critical
Froude Number:	0.9616	

Designing pipe SDP-9-187

Results:		
Total Flow:	172.1720 cfs	Flow From: Upstream
Status:	Fixed	Slope: 0.0050 ft/ft
Pipe Width:	60.0000 in	Pipe Height: 60.0000 in
Depth of Flow:	3.8333 ft	Flow Status: Partial
Critical Depth:	3.7610 ft	Capacity: 184.1607 cfs
Velocity:	10.6586 ft/s	Flow Regime: Critical
Froude Number:	0.9616	

Designing pipe SDP-9-186

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:		
Total Flow:	172.1720 cfs	Flow From: Upstream
Status:	Fixed	Slope: 0.1070 ft/ft
Pipe Width:	60.0000 in	Pipe Height: 60.0000 in
Depth of Flow:	1.5244 ft	Flow Status: Partial
Critical Depth:	3.7610 ft	Capacity: 852.0983 cfs
Velocity:	33.9808 ft/s	Flow Regime: SuperCritical
Froude Number:	5.7106	

## Designing pipe SDP-9-185

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.1070 ft/ft
Pipe width:	60.0000 in	Pipe Height:	60.0000 in
Depth of Flow:	1.5244 ft	Flow Status:	Partial
Critical Depth:	3.7610 ft	Capacity:	852.0968 cfs
Velocity:	33.9808 ft/s	Flow Regime:	SuperCritical
Froude Number:	5.7106		

## Designing manhole SDMH-9-25

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber width:	6.0000 ft	Chamber Length:	6.0000 ft

## Designing pipe SDP-9-184

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.1070 ft/ft
Pipe width:	60.0000 in	Pipe Height:	60.0000 in
Depth of Flow:	1.5244 ft	Flow Status:	Partial
Critical Depth:	3.7610 ft	Capacity:	852.0968 cfs
Velocity:	33.9808 ft/s	Flow Regime:	SuperCritical
Froude Number:	5.7106		

## Designing pipe SDP-9-183

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.1070 ft/ft
Pipe width:	60.0000 in	Pipe Height:	60.0000 in
Depth of Flow:	1.5244 ft	Flow Status:	Partial
Critical Depth:	3.7610 ft	Capacity:	852.0983 cfs
Velocity:	33.9808 ft/s	Flow Regime:	SuperCritical
Froude Number:	5.7106		

## Designing pipe SDP-9-182

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0175 ft/ft
Pipe width:	60.0000 in	Pipe Height:	60.0000 in
Depth of Flow:	2.4992 ft	Flow Status:	Partial
Critical Depth:	3.7610 ft	Capacity:	344.5108 cfs
Velocity:	17.5435 ft/s	Flow Regime:	SuperCritical
Froude Number:	2.2077		

## Designing pipe SDP-9-181

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0175 ft/ft
Pipe width:	60.0000 in	Pipe Height:	60.0000 in
Depth of Flow:	2.4992 ft	Flow Status:	Partial
Critical Depth:	3.7610 ft	Capacity:	344.5108 cfs
Velocity:	17.5435 ft/s	Flow Regime:	SuperCritical
Froude Number:	2.2077		

## Designing manhole SDMH-9-24

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber width:	6.0000 ft	Chamber Length:	6.0000 ft

## Designing pipe SDP-9-94

WARNING: Full flow velocity is greater than maximum (10.0000)

## SD network analysis.txt

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0175 ft/ft
Pipe Width:	60.0000 in	Pipe Height:	60.0000 in
Depth of Flow:	2.4992 ft	Flow Status:	Partial
Critical Depth:	3.7610 ft	Capacity:	344.5105 cfs
Velocity:	17.5435 ft/s	Flow Regime:	SuperCritical
Froude Number:	2.2077		

## Designing pipe SDP-9-93

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0175 ft/ft
Pipe Width:	60.0000 in	Pipe Height:	60.0000 in
Depth of Flow:	2.4992 ft	Flow Status:	Partial
Critical Depth:	3.7610 ft	Capacity:	344.5105 cfs
Velocity:	17.5435 ft/s	Flow Regime:	SuperCritical
Froude Number:	2.2077		

## Designing pipe SDP-9-92

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0128 ft/ft
Pipe Width:	60.0000 in	Pipe Height:	60.0000 in
Depth of Flow:	2.7487 ft	Flow Status:	Partial
Critical Depth:	3.7610 ft	Capacity:	294.1733 cfs
Velocity:	15.5679 ft/s	Flow Regime:	SuperCritical
Froude Number:	1.8409		

## Designing pipe SDP-9-91

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0128 ft/ft
Pipe Width:	60.0000 in	Pipe Height:	60.0000 in
Depth of Flow:	2.7487 ft	Flow Status:	Partial
Critical Depth:	3.7610 ft	Capacity:	294.1733 cfs
Velocity:	15.5679 ft/s	Flow Regime:	SuperCritical
Froude Number:	1.8409		

## Designing manhole SDMH-9-23

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber Width:	6.0000 ft	Chamber Length:	6.0000 ft

## Designing pipe SDP-9-90

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0128 ft/ft
Pipe Width:	60.0000 in	Pipe Height:	60.0000 in
Depth of Flow:	2.7487 ft	Flow Status:	Partial
Critical Depth:	3.7610 ft	Capacity:	294.1733 cfs
Velocity:	15.5679 ft/s	Flow Regime:	SuperCritical
Froude Number:	1.8409		

## Designing pipe SDP-9-89

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0128 ft/ft
Pipe Width:	60.0000 in	Pipe Height:	60.0000 in
Depth of Flow:	2.7487 ft	Flow Status:	Partial
Critical Depth:	3.7610 ft	Capacity:	294.1733 cfs
Velocity:	15.5679 ft/s	Flow Regime:	SuperCritical
Froude Number:	1.8409		

## SD network analysis.txt

Designing pipe SDP-9-88

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0128 ft/ft
Pipe width:	60.0000 in	Pipe Height:	60.0000 in
Depth of Flow:	2.7487 ft	Flow Status:	Partial
Critical Depth:	3.7610 ft	Capacity:	294.1733 cfs
Velocity:	15.5679 ft/s	Flow Regime:	SuperCritical
Froude Number:	1.8409		

Designing pipe SDP-9-87

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0525 ft/ft
Pipe width:	60.0000 in	Pipe Height:	60.0000 in
Depth of Flow:	1.8387 ft	Flow Status:	Partial
Critical Depth:	3.7610 ft	Capacity:	596.7490 cfs
Velocity:	26.2841 ft/s	Flow Regime:	SuperCritical
Froude Number:	3.9758		

Designing pipe SDP-9-86

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0525 ft/ft
Pipe width:	60.0000 in	Pipe Height:	60.0000 in
Depth of Flow:	1.8387 ft	Flow Status:	Partial
Critical Depth:	3.7610 ft	Capacity:	596.7490 cfs
Velocity:	26.2841 ft/s	Flow Regime:	SuperCritical
Froude Number:	3.9758		

Designing manhole SDMH-9-22

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber width:	6.0000 ft	Chamber Length:	6.0000 ft

Designing pipe SDP-9-85

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0525 ft/ft
Pipe width:	60.0000 in	Pipe Height:	60.0000 in
Depth of Flow:	1.8387 ft	Flow Status:	Partial
Critical Depth:	3.7610 ft	Capacity:	596.7490 cfs
Velocity:	26.2841 ft/s	Flow Regime:	SuperCritical
Froude Number:	3.9758		

Designing pipe SDP-9-84

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0525 ft/ft
Pipe width:	66.0000 in	Pipe Height:	66.0000 in
Depth of Flow:	1.7683 ft	Flow Status:	Partial
Critical Depth:	3.6690 ft	Capacity:	769.4354 cfs
Velocity:	26.0974 ft/s	Flow Regime:	SuperCritical
Froude Number:	4.0603		

Designing pipe SDP-9-83

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	172.1720 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0525 ft/ft
Pipe width:	66.0000 in	Pipe Height:	66.0000 in
Depth of Flow:	1.7683 ft	Flow Status:	Partial
Critical Depth:	3.6690 ft	Capacity:	769.4354 cfs
Velocity:	26.0974 ft/s	Flow Regime:	SuperCritical
Froude Number:	4.0603		

## Designing pipe SDP-9-82

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	217.9200 cfs	Flow From:	Injected Storm
Status:	Fixed	Slope:	0.0266 ft/ft
Pipe Width:	48.0000 in	Pipe Height:	48.0000 in
Depth of Flow:	3.0509 ft	Flow Status:	Partial
Critical Depth:	3.8890 ft	Capacity:	234.4332 cfs
Velocity:	21.1886 ft/s	Flow Regime:	SuperCritical
Froude Number:	2.1489		

DRAINAGE STRUCTURE

← 'S-2'

## Designing manhole SDMH23

## Results:

Total Flow:	217.9200 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber Width:	6.0000 ft	Chamber Length:	6.0000 ft

## Designing pipe SDP37

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	217.9200 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0777 ft/ft
Pipe Width:	48.0000 in	Pipe Height:	48.0000 in
Depth of Flow:	2.1033 ft	Flow Status:	Partial
Critical Depth:	3.8890 ft	Capacity:	400.4990 cfs
Velocity:	32.5419 ft/s	Flow Regime:	SuperCritical
Froude Number:	4.4311		

## Designing manhole SDMH21

## Results:

Total Flow:	217.9200 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber Width:	6.0000 ft	Chamber Length:	6.0000 ft

## Designing pipe SDP15

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	217.9200 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0093 ft/ft
Pipe Width:	48.0000 in	Pipe Height:	48.0000 in
Depth of Flow:	4.0000 ft	Flow Status:	Full
Critical Depth:	4.0000 ft	Capacity:	138.6153 cfs
Velocity:	17.3415 ft/s	Flow Regime:	Subcritical
Froude Number:	0.0000		

## Designing pipe SDP-9-81

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	217.9200 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0091 ft/ft
Pipe Width:	48.0000 in	Pipe Height:	48.0000 in
Depth of Flow:	4.0000 ft	Flow Status:	Full
Critical Depth:	4.0000 ft	Capacity:	137.0270 cfs
Velocity:	17.3415 ft/s	Flow Regime:	Subcritical
Froude Number:	0.0000		

## Designing manhole SDMH-9-21

## Results:

Total Flow:	217.9200 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber Width:	6.0000 ft	Chamber Length:	6.0000 ft

## Designing pipe SDP-9-80

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	217.9200 cfs	Flow From:	Upstream
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Status:	Fixed	SD network analysis.txt
Pipe Width:	48.0000 in	Slope: 0.0342 ft/ft
Depth of Flow:	2.7573 ft	Pipe Height: 48.0000 in
Critical Depth:	3.8890 ft	Flow Status: Partial
Velocity:	23.5877 ft/s	Capacity: 265.6206 cfs
Froude Number:	2.6325	Flow Regime: SuperCritical

#### Designing manhole SDMH-9-20

Results:		
Total Flow:	217.9200 cfs	Flow From: Upstream
Status:	Fixed	
Chamber width:	6.0000 ft	Chamber Length: 6.0000 ft

#### Designing pipe SDP-9-79

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:		
Total Flow:	217.9200 cfs	Flow From: Upstream
Status:	Fixed	Slope: 0.0284 ft/ft
Pipe Width:	48.0000 in	Pipe Height: 48.0000 in
Depth of Flow:	2.9676 ft	Flow Status: Partial
Critical Depth:	3.8890 ft	Capacity: 242.0460 cfs
Velocity:	21.7982 ft/s	Flow Regime: SuperCritical
Froude Number:	2.2741	

#### Designing pipe SDP-9-78

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:		
Total Flow:	390.0920 cfs	Flow From: Upstream
Status:	Fixed	Slope: 0.0525 ft/ft
Pipe Width:	66.0000 in	Pipe Height: 66.0000 in
Depth of Flow:	2.7726 ft	Flow Status: Partial
Critical Depth:	5.1650 ft	Capacity: 769.4354 cfs
Velocity:	32.4968 ft/s	Flow Regime: SuperCritical
Froude Number:	3.8780	

#### Designing pipe SDP-9-77

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:		
Total Flow:	390.0920 cfs	Flow From: Upstream
Status:	Fixed	Slope: 0.0525 ft/ft
Pipe Width:	66.0000 in	Pipe Height: 66.0000 in
Depth of Flow:	2.7726 ft	Flow Status: Partial
Critical Depth:	5.1650 ft	Capacity: 769.4354 cfs
Velocity:	32.4968 ft/s	Flow Regime: SuperCritical
Froude Number:	3.8780	

#### Designing manhole SDMH-9-19

Results:		
Total Flow:	390.0920 cfs	Flow From: Upstream
Status:	Fixed	
Chamber width:	6.0000 ft	Chamber Length: 6.0000 ft

#### Designing pipe SDP-9-76

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:		
Total Flow:	390.0920 cfs	Flow From: Upstream
Status:	Fixed	Slope: 0.0525 ft/ft
Pipe Width:	66.0000 in	Pipe Height: 66.0000 in
Depth of Flow:	2.7726 ft	Flow Status: Partial
Critical Depth:	5.1650 ft	Capacity: 769.4354 cfs
Velocity:	32.4968 ft/s	Flow Regime: SuperCritical
Froude Number:	3.8780	

#### Designing pipe SDP-9-75

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:		
Total Flow:	390.0920 cfs	Flow From: Upstream
Status:	Fixed	Slope: 0.0525 ft/ft
Pipe Width:	66.0000 in	Pipe Height: 66.0000 in
Depth of Flow:	2.7726 ft	Flow Status: Partial

Critical Depth:	5.1650 ft	SD network analysis.txt
Velocity:	32.4968 ft/s	Capacity: 769.4354 cfs
Froude Number:	3.8780	Flow Regime: SuperCritical

#### Designing pipe SDP-9-74

WARNING: Full flow velocity is greater than maximum (10.0000)

##### Results:

Total Flow:	390.0920 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0450 ft/ft
Pipe Width:	66.0000 in	Pipe Height:	66.0000 in
Depth of Flow:	2.9032 ft	Flow Status:	Partial
Critical Depth:	5.1650 ft	Capacity:	712.3588 cfs
Velocity:	30.6631 ft/s	Flow Regime:	SuperCritical
Froude Number:	3.5517		

#### Designing pipe SDP-9-73

WARNING: Full flow velocity is greater than maximum (10.0000)

##### Results:

Total Flow:	390.0920 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0450 ft/ft
Pipe Width:	66.0000 in	Pipe Height:	66.0000 in
Depth of Flow:	2.9032 ft	Flow Status:	Partial
Critical Depth:	5.1650 ft	Capacity:	712.3588 cfs
Velocity:	30.6631 ft/s	Flow Regime:	SuperCritical
Froude Number:	3.5517		

#### Designing pipe SDP-9-72

WARNING: Full flow velocity is greater than maximum (10.0000)

##### Results:

Total Flow:	390.0920 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0500 ft/ft
Pipe Width:	66.0000 in	Pipe Height:	66.0000 in
Depth of Flow:	2.8130 ft	Flow Status:	Partial
Critical Depth:	5.1650 ft	Capacity:	750.8921 cfs
Velocity:	31.9063 ft/s	Flow Regime:	SuperCritical
Froude Number:	3.7724		

#### Designing pipe SDP-9-71

WARNING: Full flow velocity is greater than maximum (10.0000)

##### Results:

Total Flow:	390.0920 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0500 ft/ft
Pipe Width:	66.0000 in	Pipe Height:	66.0000 in
Depth of Flow:	2.8130 ft	Flow Status:	Partial
Critical Depth:	5.1650 ft	Capacity:	750.8921 cfs
Velocity:	31.9063 ft/s	Flow Regime:	SuperCritical
Froude Number:	3.7724		

#### Designing inlet IN-9-16

WARNING: Spread is greater than maximum spread (2.5000 ft.)  
 WARNING: Inlet forced to capture all flow, ignoring capacity calculations.  
 WARNING: Pipe too large for valid connection to inlet.

##### Results:

Gutter Flow:	9.0200 cfs	Flow From:	Injected Storm
Status:	Fixed	Inlet Width:	2.0000 ft
Inlet Length:	2.9500 ft	Bypass To:	0.0000 cfs
Flow Downstream:	9.0200 cfs	Capacity:	0.0000 cfs
Percent Cap:	100.0000 %	Assigned Bypass:	N/A
Spread:	2.6743 ft		
Depth in Gutter:	0.8230 ft		

#### Designing pipe SDP-9-70

WARNING: Full flow velocity is greater than maximum (10.0000)

##### Results:

Total Flow:	9.0200 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0524 ft/ft
Pipe Width:	18.0000 in	Pipe Height:	18.0000 in
Depth of Flow:	0.6365 ft	Flow Status:	Partial
Critical Depth:	1.1620 ft	Capacity:	24.0436 cfs
Velocity:	12.6309 ft/s	Flow Regime:	SuperCritical
Froude Number:	3.2090		

## SD network analysis.txt

WARNING: Pipe Too large for valid connection to inlet.  
 Designing inlet IN-9-15  
 WARNING: Inlet forced to capture all flow, ignoring capacity calculations.  
 WARNING: Pipe Too large for valid connection to inlet.

## Results:

Gutter Flow:	5.7400 cfs	Flow From:	Injected Storm
Status:	Fixed		
Inlet Length:	2.9500 ft	Inlet width:	2.0000 ft
Flow Downstream:	14.7600 cfs	Bypass To:	0.0000 cfs
Percent Cap:	100.0000 %	Capacity:	0.0000 cfs
Spread:	2.2573 ft		
Depth in Gutter:	0.6947 ft	Assigned Bypass:	N/A

## Designing pipe SDP-9-69

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	14.7600 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0448 ft/ft
Pipe width:	24.0000 in	Pipe Height:	24.0000 in
Depth of Flow:	0.7623 ft	Flow Status:	Partial
Critical Depth:	1.3840 ft	Capacity:	47.8595 cfs
Velocity:	13.4169 ft/s		
Froude Number:	3.1436	Flow Regime:	SuperCritical

WARNING: Pipe Too large for valid connection to inlet.  
 Designing manhole SDMH-9-18

## Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber width:	6.0000 ft	Chamber Length:	6.0000 ft

## Designing pipe SDP-9-68

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0500 ft/ft
Pipe width:	66.0000 in	Pipe Height:	66.0000 in
Depth of Flow:	2.8761 ft	Flow Status:	Partial
Critical Depth:	5.2060 ft	Capacity:	750.8921 cfs
Velocity:	32.2001 ft/s		
Froude Number:	3.7527	Flow Regime:	SuperCritical

## Designing pipe SDP-9-67

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0500 ft/ft
Pipe width:	66.0000 in	Pipe Height:	66.0000 in
Depth of Flow:	2.8761 ft	Flow Status:	Partial
Critical Depth:	5.2060 ft	Capacity:	750.8921 cfs
Velocity:	32.2001 ft/s		
Froude Number:	3.7527	Flow Regime:	SuperCritical

## Designing pipe SDP-9-66

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0500 ft/ft
Pipe width:	66.0000 in	Pipe Height:	66.0000 in
Depth of Flow:	2.8761 ft	Flow Status:	Partial
Critical Depth:	5.2060 ft	Capacity:	750.8921 cfs
Velocity:	32.2001 ft/s		
Froude Number:	3.7527	Flow Regime:	SuperCritical

## Designing pipe SDP-9-65

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0500 ft/ft
Pipe width:	66.0000 in	Pipe Height:	66.0000 in
Depth of Flow:	2.8761 ft	Flow Status:	Partial

Critical Depth: 5.2060 ft  
Velocity: 32.2001 ft/s  
Froude Number: 3.7527

SD network analysis.txt  
Capacity: 750.8921 cfs  
Flow Regime: SuperCritical

Designing manhole SDMH-9-17

Results:  
Total Flow: 404.8519 cfs      Flow From: Upstream  
Status: Fixed  
Chamber width: 6.0000 ft      Chamber Length: 6.0000 ft

Designing pipe SDP-9-64

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:  
Total Flow: 404.8519 cfs      Flow From: Upstream  
Status: Fixed      Slope: 0.0500 ft/ft  
Pipe Width: 66.0000 in      Pipe Height: 66.0000 in  
Depth of Flow: 2.8761 ft      Flow Status: Partial  
Critical Depth: 5.2060 ft      Capacity: 750.8921 cfs  
Velocity: 32.2001 ft/s  
Froude Number: 3.7527      Flow Regime: SuperCritical

Designing pipe SDP-9-63

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:  
Total Flow: 404.8519 cfs      Flow From: Upstream  
Status: Fixed      Slope: 0.0500 ft/ft  
Pipe Width: 72.0000 in      Pipe Height: 72.0000 in  
Depth of Flow: 2.7401 ft      Flow Status: Partial  
Critical Depth: 5.3560 ft      Capacity: 946.9935 cfs  
Velocity: 32.1814 ft/s  
Froude Number: 3.9109      Flow Regime: SuperCritical

Designing pipe SDP-9-62

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:  
Total Flow: 404.8519 cfs      Flow From: Upstream  
Status: Fixed      Slope: 0.0350 ft/ft  
Pipe Width: 72.0000 in      Pipe Height: 72.0000 in  
Depth of Flow: 3.0387 ft      Flow Status: Partial  
Critical Depth: 5.3560 ft      Capacity: 792.3116 cfs  
Velocity: 28.1735 ft/s  
Froude Number: 3.2094      Flow Regime: SuperCritical

Designing pipe SDP-9-61

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:  
Total Flow: 404.8519 cfs      Flow From: Upstream  
Status: Fixed      Slope: 0.0350 ft/ft  
Pipe Width: 72.0000 in      Pipe Height: 72.0000 in  
Depth of Flow: 3.0387 ft      Flow Status: Partial  
Critical Depth: 5.3560 ft      Capacity: 792.3116 cfs  
Velocity: 28.1735 ft/s  
Froude Number: 3.2094      Flow Regime: SuperCritical

Designing manhole SDMH-9-16

Results:  
Total Flow: 404.8519 cfs      Flow From: Upstream  
Status: Fixed  
Chamber width: 6.0000 ft      Chamber Length: 6.0000 ft

Designing pipe SDP-9-60

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:  
Total Flow: 404.8519 cfs      Flow From: Upstream  
Status: Fixed      Slope: 0.0350 ft/ft  
Pipe Width: 72.0000 in      Pipe Height: 72.0000 in  
Depth of Flow: 3.0387 ft      Flow Status: Partial  
Critical Depth: 5.3560 ft      Capacity: 792.3116 cfs  
Velocity: 28.1735 ft/s  
Froude Number: 3.2094      Flow Regime: SuperCritical

SD network analysis.txt

Designing pipe SDP-9-59

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0350 ft/ft
Pipe Width:	72.0000 in	Pipe Height:	72.0000 in
Depth of Flow:	3.0387 ft	Flow Status:	Partial
Critical Depth:	5.3560 ft	Capacity:	792.3116 cfs
Velocity:	28.1735 ft/s	Flow Regime:	SuperCritical
Froude Number:	3.2094		

Designing pipe SDP-9-58

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0350 ft/ft
Pipe Width:	72.0000 in	Pipe Height:	72.0000 in
Depth of Flow:	3.0387 ft	Flow Status:	Partial
Critical Depth:	5.3560 ft	Capacity:	792.3116 cfs
Velocity:	28.1735 ft/s	Flow Regime:	SuperCritical
Froude Number:	3.2094		

Designing pipe SDP7

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0338 ft/ft
Pipe Width:	72.0000 in	Pipe Height:	72.0000 in
Depth of Flow:	3.0692 ft	Flow Status:	Partial
Critical Depth:	5.3560 ft	Capacity:	779.0999 cfs
Velocity:	27.8193 ft/s	Flow Regime:	SuperCritical
Froude Number:	3.1488		

Designing pipe SDP-9-38

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0350 ft/ft
Pipe Width:	72.0000 in	Pipe Height:	72.0000 in
Depth of Flow:	3.0387 ft	Flow Status:	Partial
Critical Depth:	5.3560 ft	Capacity:	792.3116 cfs
Velocity:	28.1735 ft/s	Flow Regime:	SuperCritical
Froude Number:	3.2094		

Designing pipe SDP-9-37

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0350 ft/ft
Pipe Width:	72.0000 in	Pipe Height:	72.0000 in
Depth of Flow:	3.0387 ft	Flow Status:	Partial
Critical Depth:	5.3560 ft	Capacity:	792.3116 cfs
Velocity:	28.1735 ft/s	Flow Regime:	SuperCritical
Froude Number:	3.2094		

Designing manhole SDMH-9-10

Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber width:	6.0000 ft	Chamber Length:	6.0000 ft

Designing pipe SDP-9-36

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0350 ft/ft
Pipe Width:	72.0000 in	Pipe Height:	72.0000 in
Depth of Flow:	3.0387 ft	Flow Status:	Partial
Critical Depth:	5.3560 ft	Capacity:	792.3116 cfs

Velocity: 28.1735 ft/s  
Froude Number: 3.2094

SD network analysis.txt  
Flow Regime: SuperCritical

Designing pipe SDP-9-35

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0350 ft/ft
Pipe Width:	72.0000 in	Pipe Height:	72.0000 in
Depth of Flow:	3.0387 ft	Flow Status:	Partial
Critical Depth:	5.3560 ft	Capacity:	792.3116 cfs
Velocity:	28.1735 ft/s		
Froude Number:	3.2094	Flow Regime:	SuperCritical

Designing pipe SDP-9-34

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0350 ft/ft
Pipe Width:	72.0000 in	Pipe Height:	72.0000 in
Depth of Flow:	3.0387 ft	Flow Status:	Partial
Critical Depth:	5.3560 ft	Capacity:	792.3116 cfs
Velocity:	28.1735 ft/s		
Froude Number:	3.2094	Flow Regime:	SuperCritical

Designing pipe SDP-9-33

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0350 ft/ft
Pipe Width:	72.0000 in	Pipe Height:	72.0000 in
Depth of Flow:	3.0387 ft	Flow Status:	Partial
Critical Depth:	5.3560 ft	Capacity:	792.3116 cfs
Velocity:	28.1735 ft/s		
Froude Number:	3.2094	Flow Regime:	SuperCritical

Designing manhole SDMH-9-8

Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber Width:	6.0000 ft	Chamber Length:	6.0000 ft

Designing pipe SDP-9-29

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0350 ft/ft
Pipe Width:	72.0000 in	Pipe Height:	72.0000 in
Depth of Flow:	3.0387 ft	Flow Status:	Partial
Critical Depth:	5.3560 ft	Capacity:	792.3116 cfs
Velocity:	28.1735 ft/s		
Froude Number:	3.2094	Flow Regime:	SuperCritical

Designing pipe SDP-9-28

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0350 ft/ft
Pipe Width:	72.0000 in	Pipe Height:	72.0000 in
Depth of Flow:	3.0387 ft	Flow Status:	Partial
Critical Depth:	5.3560 ft	Capacity:	792.3162 cfs
Velocity:	28.1735 ft/s		
Froude Number:	3.2094	Flow Regime:	SuperCritical

Designing pipe SDP-9-27

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0350 ft/ft
Pipe Width:	78.0000 in	Pipe Height:	78.0000 in

Depth of Flow:	2.9100 ft	SD network analysis.txt
Critical Depth:	5.3650 ft	Flow Status: Partial
Velocity:	28.1416 ft/s	Capacity: 980.8328 cfs
Froude Number:	3.3258	Flow Regime: SuperCritical

#### Designing pipe SDP-9-302

WARNING: Full flow velocity is greater than maximum (10.0000)

##### Results:

Total Flow:	404.8519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0350 ft/ft
Pipe Width:	78.0000 in	Pipe Height:	78.0000 in
Depth of Flow:	2.9099 ft	Flow Status:	Partial
Critical Depth:	5.3650 ft	Capacity:	980.8678 cfs
Velocity:	28.1429 ft/s	Flow Regime:	SuperCritical
Froude Number:	3.3260		

#### Designing inlet IN-9-5

WARNING: Spread is greater than maximum spread (2.5000 ft )  
 WARNING: Inlet forced to capture all flow, ignoring capacity calculations.  
 WARNING: Pipe Too large for valid connection to inlet.

##### Results:

Gutter Flow:	8.3400 cfs	Flow From:	Injected Storm
Status:	Fixed	Inlet width:	2.0000 ft
Inlet Length:	2.9500 ft	Bypass To:	0.0000 cfs
Flow Downstream:	8.3400 cfs	Capacity:	0.0000 cfs
Percent Cap:	100.0000 %	Assigned Bypass:	N/A
Spread:	2.5968 ft		
Depth in Gutter:	0.7992 ft		

#### Designing pipe SDP-9-25

##### Results:

Total Flow:	8.3400 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0264 ft/ft
Pipe Width:	18.0000 in	Pipe Height:	18.0000 in
Depth of Flow:	0.7395 ft	Flow Status:	Partial
Critical Depth:	1.1180 ft	Capacity:	17.0823 cfs
Velocity:	9.6086 ft/s	Flow Regime:	SuperCritical
Froude Number:	2.2270		

WARNING: Pipe Too large for valid connection to inlet.

#### Designing inlet IN-9-4

WARNING: Inlet forced to capture all flow, ignoring capacity calculations.  
 WARNING: Pipe Too large for valid connection to inlet.

##### Results:

Gutter Flow:	7.3100 cfs	Flow From:	Injected Storm
Status:	Fixed	Inlet width:	2.0000 ft
Inlet Length:	2.9500 ft	Bypass To:	0.0000 cfs
Flow Downstream:	15.6500 cfs	Capacity:	0.0000 cfs
Percent Cap:	100.0000 %	Assigned Bypass:	N/A
Spread:	2.4715 ft		
Depth in Gutter:	0.7606 ft		

#### Designing pipe SDP-9-24

WARNING: Full flow velocity is greater than maximum (10.0000)

##### Results:

Total Flow:	15.6500 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.1907 ft/ft
Pipe Width:	18.0000 in	Pipe Height:	18.0000 in
Depth of Flow:	0.6040 ft	Flow Status:	Partial
Critical Depth:	1.4180 ft	Capacity:	45.8764 cfs
Velocity:	23.4946 ft/s	Flow Regime:	SuperCritical
Froude Number:	6.1566		

WARNING: Pipe Too large for valid connection to inlet.

#### Designing inlet IN-9-3

WARNING: Spread is greater than maximum spread (2.5000 ft )  
 WARNING: Inlet forced to capture all flow, ignoring capacity calculations.  
 WARNING: Pipe Too large for valid connection to inlet.

##### Results:

Gutter Flow:	8.3400 cfs	Flow From:	Injected Storm
Status:	Fixed	Inlet width:	2.0000 ft
Inlet Length:	2.9500 ft	Bypass To:	0.0000 cfs
Flow Downstream:	8.3400 cfs		

Percent Cap: 100.0000 %  
Spread: 2.6343 ft  
Depth in Gutter: 0.7923 ft

SD network analysis.txt  
Capacity: 0.0000 cfs  
Assigned Bypass: N/A

Designing pipe SDP-9-23

Results:  
Total Flow: 8.3400 cfs      Flow From: Upstream  
Status: Fixed      Slope: 0.0266 ft/ft  
Pipe Width: 18.0000 in      Pipe Height: 18.0000 in  
Depth of Flow: 0.7385 ft      Flow Status: Partial  
Critical Depth: 1.1180 ft      Capacity: 17.1240 cfs  
Velocity: 9.6252 ft/s  
Froude Number: 2.2327      Flow Regime: SuperCritical

WARNING: Pipe Too large for valid connection to inlet.  
Designing inlet IN-9-2  
WARNING: Spread is greater than maximum spread (2.5000 ft )  
WARNING: Inlet forced to capture all flow, ignoring capacity calculations.  
WARNING: Pipe Too large for valid connection to inlet.

Results:  
Gutter Flow: 7.3100 cfs      Flow From: Injected Storm  
Status: Fixed  
Inlet Length: 2.9500 ft      Inlet Width: 2.0000 ft  
Flow Downstream: 15.6500 cfs      Bypass To: 0.0000 cfs  
Percent Cap: 100.0000 %      Capacity: 0.0000 cfs  
Spread: 2.5244 ft  
Depth in Gutter: 0.7510 ft      Assigned Bypass: N/A

Designing pipe SDP-9-22

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:  
Total Flow: 15.6500 cfs      Flow From: Upstream  
Status: Fixed      Slope: 0.3353 ft/ft  
Pipe Width: 18.0000 in      Pipe Height: 18.0000 in  
Depth of Flow: 0.5189 ft      Flow Status: Partial  
Critical Depth: 1.4180 ft      Capacity: 60.8266 cfs  
Velocity: 28.8409 ft/s  
Froude Number: 8.2466      Flow Regime: SuperCritical

WARNING: Pipe Too large for valid connection to inlet.  
Designing manhole SDMH-9-7

Results:  
Total Flow: 31.3000 cfs      Flow From: Upstream  
Status: Fixed  
Chamber Width: 4.0000 ft      Chamber Length: 4.0000 ft

Designing pipe SDP-9-18

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:  
Total Flow: 31.3000 cfs      Flow From: Upstream  
Status: Fixed      Slope: 0.0304 ft/ft  
Pipe Width: 36.0000 in      Pipe Height: 36.0000 in  
Depth of Flow: 1.0631 ft      Flow Status: Partial  
Critical Depth: 1.8140 ft      Capacity: 116.2874 cfs  
Velocity: 13.9567 ft/s  
Froude Number: 2.7836      Flow Regime: SuperCritical

Designing manhole SDMH-9-6

Results:  
Total Flow: 31.3000 cfs      Flow From: Upstream  
Status: Fixed  
Chamber Width: 4.0000 ft      Chamber Length: 4.0000 ft

Designing pipe SDP-9-17

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:  
Total Flow: 31.3000 cfs      Flow From: Upstream  
Status: Fixed      Slope: 0.0310 ft/ft  
Pipe Width: 36.0000 in      Pipe Height: 36.0000 in  
Depth of Flow: 1.0573 ft      Flow Status: Partial

Critical Depth: 1.8140 ft  
Velocity: 14.0610 ft/s  
Froude Number: 2.8131

SD network analysis.txt  
Capacity: 117.4853 cfs  
Flow Regime: SuperCritical

Designing manhole SDMH-9-5

Results:  
Total Flow: 31.3000 cfs      Flow From: Upstream  
Status: Fixed  
Chamber Width: 6.0000 ft      Chamber Length: 6.0000 ft

Designing pipe SDP-9-16

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:  
Total Flow: 31.3000 cfs      Flow From: Upstream  
Status: Fixed      Slope: 0.0798 ft/ft  
Pipe Width: 42.0000 in      Pipe Height: 42.0000 in  
Depth of Flow: 0.7843 ft      Flow Status: Partial  
Critical Depth: 1.7300 ft      Capacity: 284.1598 cfs  
Velocity: 19.4255 ft/s  
Froude Number: 4.6098      Flow Regime: SuperCritical

Designing inlet IN-9-1

WARNING: Spread is greater than maximum spread (2.5000 ft.)  
WARNING: Inlet forced to capture all flow, ignoring capacity calculations.  
WARNING: Pipe too large for valid connection to inlet.

Results:  
Gutter Flow: 107.0000 cfs      Flow From: Injected Storm  
Status: Fixed  
Inlet Length: 13.0000 ft      Inlet Width: 2.0000 ft  
Flow Downstream: 138.3000 cfs      Bypass To: 0.0000 cfs  
Percent Cap: 100.0000 %      Capacity: 0.0000 cfs  
Spread: 29.6114 ft  
Depth in Gutter: 0.8577 ft      Assigned Bypass: N/A

Designing pipe SDP-9-303

Results:  
Total Flow: 138.3000 cfs      Flow From: Upstream  
Status: Fixed      Slope: 0.0061 ft/ft  
Pipe Width: 42.0000 in      Pipe Height: 42.0000 in  
Depth of Flow: 3.5000 ft      Flow Status: Full  
Critical Depth: 3.5000 ft      Capacity: 78.3103 cfs  
Velocity: 14.3746 ft/s  
Froude Number: 0.0000      Flow Regime: Subcritical

WARNING: Pipe Too large for valid connection to inlet.

Designing pipe SDP-9-301

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:  
Total Flow: 543.1519 cfs      Flow From: Upstream  
Status: Fixed      Slope: 0.0350 ft/ft  
Pipe Width: 78.0000 in      Pipe Height: 78.0000 in  
Depth of Flow: 3.4544 ft      Flow Status: Partial  
Critical Depth: 5.9730 ft      Capacity: 980.8328 cfs  
Velocity: 30.3100 ft/s  
Froude Number: 3.2151      Flow Regime: SuperCritical

Designing pipe SDP-9-13

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:  
Total Flow: 543.1519 cfs      Flow From: Upstream  
Status: Fixed      Slope: 0.0350 ft/ft  
Pipe Width: 78.0000 in      Pipe Height: 78.0000 in  
Depth of Flow: 3.4544 ft      Flow Status: Partial  
Critical Depth: 5.9730 ft      Capacity: 980.8328 cfs  
Velocity: 30.3100 ft/s  
Froude Number: 3.2151      Flow Regime: SuperCritical

Designing manhole SDMH-9-4

Results:  
Total Flow: 543.1519 cfs      Flow From: Upstream

## SD network analysis.txt

Status: Fixed  
Chamber Width: 8.0000 ft

Chamber Length: 8.0000 ft

## Designing pipe SDP-9-0

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	543.1519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0350 ft/ft
Pipe Width:	78.0000 in	Pipe Height:	78.0000 in
Depth of Flow:	3.4544 ft	Flow Status:	Partial
Critical Depth:	5.9730 ft	Capacity:	980.8328 cfs
Velocity:	30.3100 ft/s	Flow Regime:	SuperCritical
Froude Number:	3.2151		

## Designing pipe SDP-9-200

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	543.1519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0350 ft/ft
Pipe Width:	78.0000 in	Pipe Height:	78.0000 in
Depth of Flow:	3.4544 ft	Flow Status:	Partial
Critical Depth:	5.9730 ft	Capacity:	980.8328 cfs
Velocity:	30.3100 ft/s	Flow Regime:	SuperCritical
Froude Number:	3.2151		

## Designing pipe SDP-9-201

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	543.1519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0295 ft/ft
Pipe Width:	78.0000 in	Pipe Height:	78.0000 in
Depth of Flow:	3.6415 ft	Flow Status:	Partial
Critical Depth:	5.9730 ft	Capacity:	900.1703 cfs
Velocity:	28.3915 ft/s	Flow Regime:	SuperCritical
Froude Number:	2.9070		

## Designing manhole SDMH-9-0

## Results:

Total Flow:	543.1519 cfs	Flow From:	Upstream
Status:	Fixed		
Chamber Width:	8.0000 ft	Chamber Length:	8.0000 ft

## Designing pipe SDP-9-204

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	543.1519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0295 ft/ft
Pipe Width:	78.0000 in	Pipe Height:	78.0000 in
Depth of Flow:	3.6415 ft	Flow Status:	Partial
Critical Depth:	5.9730 ft	Capacity:	900.1703 cfs
Velocity:	28.3915 ft/s	Flow Regime:	SuperCritical
Froude Number:	2.9070		

## Designing pipe SDP-9-8

## Results:

Total Flow:	543.1519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0039 ft/ft
Pipe Width:	78.0000 in	Pipe Height:	78.0000 in
Depth of Flow:	6.5000 ft	Flow Status:	Full
Critical Depth:	6.5000 ft	Capacity:	327.4110 cfs
Velocity:	16.3683 ft/s	Flow Regime:	Subcritical
Froude Number:	0.0000		

## Designing pipe SDP-9-7

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	543.1519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0039 ft/ft
Pipe Width:	84.0000 in	Pipe Height:	84.0000 in
Depth of Flow:	7.0000 ft	Flow Status:	Full

Critical Depth:	7.0000 ft	SD network analysis.txt
Velocity:	14.1135 ft/s	Capacity: 398.9506 cfs
Froude Number:	0.0000	Flow Regime: Subcritical

Designing pipe SDP-9-6

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:		
Total Flow:	543.1519 cfs	Flow From: Upstream
Status:	Fixed	Slope: 0.0039 ft/ft
Pipe width:	84.0000 in	Pipe Height: 84.0000 in
Depth of Flow:	7.0000 ft	Flow Status: Full
Critical Depth:	7.0000 ft	Capacity: 398.9506 cfs
Velocity:	14.1135 ft/s	Flow Regime: Subcritical
Froude Number:	0.0000	

Designing manhole SDMH-9-2

Results:		
Total Flow:	543.1519 cfs	Flow From: Upstream
Status:	Fixed	
Chamber width:	7.0000 ft	Chamber Length: 7.0000 ft

Designing pipe SDP-9-5

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:		
Total Flow:	543.1519 cfs	Flow From: Upstream
Status:	Fixed	Slope: 0.0039 ft/ft
Pipe width:	84.0000 in	Pipe Height: 84.0000 in
Depth of Flow:	7.0000 ft	Flow Status: Full
Critical Depth:	7.0000 ft	Capacity: 398.9506 cfs
Velocity:	14.1135 ft/s	Flow Regime: Subcritical
Froude Number:	0.0000	

Designing pipe SDP-9-4

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:		
Total Flow:	543.1519 cfs	Flow From: Upstream
Status:	Fixed	Slope: 0.0039 ft/ft
Pipe width:	84.0000 in	Pipe Height: 84.0000 in
Depth of Flow:	7.0000 ft	Flow Status: Full
Critical Depth:	7.0000 ft	Capacity: 398.9506 cfs
Velocity:	14.1135 ft/s	Flow Regime: Subcritical
Froude Number:	0.0000	

Designing pipe SDP-9-3

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:		
Total Flow:	543.1519 cfs	Flow From: Upstream
Status:	Fixed	Slope: 0.0039 ft/ft
Pipe width:	84.0000 in	Pipe Height: 84.0000 in
Depth of Flow:	7.0000 ft	Flow Status: Full
Critical Depth:	7.0000 ft	Capacity: 398.9506 cfs
Velocity:	14.1135 ft/s	Flow Regime: Subcritical
Froude Number:	0.0000	

Designing pipe SDP-9-2

WARNING: Full flow velocity is greater than maximum (10.0000)

Results:		
Total Flow:	543.1519 cfs	Flow From: Upstream
Status:	Fixed	Slope: 0.0039 ft/ft
Pipe width:	84.0000 in	Pipe Height: 84.0000 in
Depth of Flow:	7.0000 ft	Flow Status: Full
Critical Depth:	7.0000 ft	Capacity: 398.9506 cfs
Velocity:	14.1135 ft/s	Flow Regime: Subcritical
Froude Number:	0.0000	

Designing manhole SDMH-9-1

Results:		
Total Flow:	543.1519 cfs	Flow From: Upstream
Status:	Fixed	
Chamber width:	7.0000 ft	Chamber Length: 7.0000 ft

## SD network analysis.txt

Designing pipe SDP-9-1

WARNING: Full flow velocity is greater than maximum (10.0000)

## Results:

Total Flow:	543.1519 cfs	Flow From:	Upstream
Status:	Fixed	Slope:	0.0039 ft/ft
Pipe Width:	84.0000 in	Pipe Height:	84.0000 in
Depth of Flow:	7.0000 ft	Flow Status:	Full
Critical Depth:	7.0000 ft	Capacity:	398.9506 cfs
Velocity:	14.1135 ft/s	Flow Regime:	Subcritical
Froude Number:	0.0000		

## HGL/EGL Computations:

Table A:

Struct_ID	D	Q	L	V	d	dc	VA2/2g	Sf	Dn_Soffit	EGLdn	HGLdn	Tot_Loss	EGLup
HGLup Rim_Elev.	(in)	(cfs)	(ft)	(ft/s)	(ft)	(ft)	(ft)	(ft/ft)	(ft)	(ft)	(ft)	(ft)	(ft)
(ft) (ft)													
Outfall	-	-	-	-	-	-	-	-	-	-	-	-	-
5276.19	-	-	-	-	-	-	-	-	-	-	-	-	-
(Alternate HGL and EGL Used)													
5279.28 5276.19	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-1	84	543.15	155.92	14.11	-	-	3.10	0.0072	5276.19	5279.28	5276.19	1.13	
5280.41 5277.32	-	-	-	-	-	-	-	-	-	5280.41	5277.32	0.16	
SDMH-9-1	-	-	-	-	-	-	-	-	-	-	-	-	-
5280.57 5277.48	84	543.15	4.00	14.11	-	-	3.10	0.0072	5276.78	5280.57	5277.48	0.03	
SDP-9-2	-	-	-	-	-	-	-	-	-	-	-	-	-
5280.60 5277.51	-	-	-	-	-	-	-	-	-	5280.60	5277.51	-	
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5280.60 5277.51	84	543.15	4.00	14.11	-	-	3.10	0.0072	5276.79	5280.60	5277.51	0.03	
SDP-9-3	-	-	-	-	-	-	-	-	-	-	-	-	-
5280.63 5277.54	-	-	-	-	-	-	-	-	-	5280.63	5277.54	0.27	
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5280.90 5277.81	84	543.15	4.00	14.11	-	-	3.10	0.0072	5276.80	5280.90	5277.81	0.03	
SDP-9-4	-	-	-	-	-	-	-	-	-	-	-	-	-
5280.93 5277.83	-	-	-	-	-	-	-	-	-	5280.93	5277.83	0.00	
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5280.93 5277.83	84	543.15	210.89	14.11	-	-	3.10	0.0072	5276.82	5280.93	5277.83	1.52	
SDP-9-5	-	-	-	-	-	-	-	-	-	-	-	-	-
5282.45 5279.36	-	-	-	-	-	-	-	-	-	5282.45	5279.36	0.18	
SDMH-9-2	-	-	-	-	-	-	-	-	-	-	-	-	-
5282.63 5279.54	84	543.15	4.00	14.11	-	-	3.10	0.0072	5277.63	5282.63	5279.54	0.03	
SDP-9-6	-	-	-	-	-	-	-	-	-	-	-	-	-
5282.66 5279.56	-	-	-	-	-	-	-	-	-	5282.66	5279.56	0.00	
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5282.66 5279.56	84	543.15	4.00	14.11	-	-	3.10	0.0072	5277.63	5282.66	5279.56	0.03	
SDP-9-7	-	-	-	-	-	-	-	-	-	-	-	-	-
5282.69 5279.59	-	-	-	-	-	-	-	-	-	5282.69	5279.59	0.38	
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5283.07 5279.97	78	543.15	4.00	16.37	-	-	4.16	0.0107	5277.14	5283.07	5279.97	0.04	
SDP-9-8	-	-	-	-	-	-	-	-	-	-	-	-	-
5283.11 5278.94	-	-	-	-	-	-	-	-	-	5283.11	5278.94	2.49	
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5285.60 5281.44	78	543.15	325.44	16.37	-	-	4.16	0.0107	5277.16	5285.60	5281.44	3.68	
SDP-9-204	-	-	-	-	-	-	-	-	-	-	-	-	-
5289.28 5285.11	-	-	-	-	-	-	-	-	-	5289.28	5285.11	0.22	
SDMH-9-0	-	-	-	-	-	-	-	-	-	-	-	-	-
5289.50 5285.34	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-201	78	543.15	4.00	16.37	-	-	4.16	0.0107	5286.75	5290.65	5286.48	0.04	
5290.65 5286.48	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-201	-	-	-	-	-	-	-	-	-	-	-	-	-
5290.69 5286.53	-	-	-	-	-	-	-	-	-	5290.69	5286.53	0.00	
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5290.69 5286.53	78	543.15	4.00	16.37	-	-	4.16	0.0107	5286.75	5290.69	5286.53	0.04	
SDP-9-200	-	-	-	-	-	-	-	-	-	-	-	-	-
5290.74 5286.57	-	-	-	-	-	-	-	-	-	5290.74	5286.57	0.00	
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5290.74 5286.58	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-0	78	543.15	32.32	16.37	-	-	4.16	0.0107	5286.89	5290.79	5286.62	0.37	
5291.15 5286.99	-	-	-	-	-	-	-	-	-	5291.15	5286.99	0.24	
SDMH-9-4	-	-	-	-	-	-	-	-	-	-	-	-	-
5291.39 5287.23	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-13	78	543.15	4.00	16.37	-	-	4.16	0.0107	5287.95	5291.85	5287.69	0.04	
5291.85 5287.69	-	-	-	-	-	-	-	-	-	5291.85	5287.69	0.00	
SDP-9-13	-	-	-	-	-	-	-	-	-	-	-	-	-
5291.89 5287.73	-	-	-	-	-	-	-	-	-	5291.89	5287.73	0.00	
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5291.89 5287.73	-	-	-	-	-	-	-	-	-	-	-	-	-

## SD network analysis.txt

SDP-9-301	78	543.15	0.75	16.37	-	-	4.16	0.0107	5287.95	5291.89	5287.73	0.01
5291.90 5287.74	-	-	-	-	-	-	-	-	-	5291.90	5287.74	3.94
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5295.84 5291.68	-	-	-	-	-	-	-	-	-	5295.84	5291.68	0.04
SDP-9-302	78	404.85	7.25	12.20	-	-	2.31	0.0060	5287.97	5295.84	5291.68	0.04
5295.89 5293.57	-	-	-	-	-	-	-	-	-	5295.89	5293.57	0.00
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5295.89 5293.58	-	-	-	-	-	-	-	-	-	5295.89	5293.58	0.05
SDP-9-27	78	404.85	8.00	12.20	-	-	2.31	0.0060	5288.23	5295.89	5293.58	0.05
5295.94 5293.63	-	-	-	-	-	-	-	-	-	5295.94	5293.63	0.29
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5296.23 5293.91	-	-	-	-	-	-	-	-	-	5296.23	5293.91	1.42
SDP-9-28	72	404.85	148.56	14.32	-	-	3.19	0.0091	5288.01	5296.23	5293.91	1.42
5297.65 5294.46	-	-	-	-	-	-	-	-	-	5297.65	5294.46	0.00
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5297.65 5294.46	-	-	-	-	-	-	-	-	-	5297.65	5294.46	0.12
SDP-9-29	72	404.85	12.74	14.32	-	-	3.19	0.0091	5293.21	5297.65	5294.46	0.12
5297.77 5294.58	-	-	-	-	-	-	-	-	-	5297.77	5294.58	0.18
SDMH-9-8	-	-	-	-	-	-	-	-	-	-	-	-
5297.94 5294.75	5302.68	-	-	-	-	-	-	-	-	5297.94	5294.75	0.04
SDP-9-33	72	404.85	4.00	14.32	-	-	3.19	0.0091	5293.55	5297.94	5294.75	0.04
5297.98 5294.79	-	-	-	-	-	-	-	-	-	5297.98	5294.79	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5297.98 5294.79	-	-	-	-	-	-	-	-	-	5297.98	5294.79	0.04
SDP-9-34	72	404.85	4.00	14.32	-	-	3.19	0.0091	5293.58	5297.98	5294.79	0.04
5298.01 5294.83	-	-	-	-	-	-	-	-	-	5298.01	5294.83	0.11
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5298.13 5294.94	-	-	-	-	-	-	-	-	-	5298.13	5294.94	0.04
SDP-9-35	72	404.85	4.00	14.32	-	-	3.19	0.0091	5293.72	5298.13	5294.94	0.04
5298.16 5294.98	-	-	-	-	-	-	-	-	-	5298.16	5294.98	0.00
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5298.16 5294.98	-	-	-	-	-	-	-	-	-	5298.16	5294.98	0.82
SDP-9-36	72	404.85	90.05	14.32	-	-	3.19	0.0091	5293.86	5298.16	5294.98	0.14
5298.99 5295.80	-	-	-	-	-	-	-	-	-	5298.99	5295.80	0.14
SDMH-9-10	-	-	-	-	-	-	-	-	-	-	-	-
5299.13 5295.94	5306.27	-	-	-	-	-	-	-	-	5299.13	5295.94	-
(Alternate HGL and EGL Used)	-	-	-	-	-	-	-	-	-	-	-	-
5299.77 5296.58	-	-	-	-	-	-	-	-	-	5299.77	5296.58	0.04
SDP-9-37	72	404.85	4.00	14.32	-	-	3.19	0.0091	5296.91	5299.77	5296.58	0.04
5299.81 5296.62	-	-	-	-	-	-	-	-	-	5299.81	5296.62	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5299.81 5296.62	-	-	-	-	-	-	-	-	-	5299.81	5296.62	0.04
SDP-9-38	72	404.85	4.00	14.32	-	-	3.19	0.0091	5296.94	5299.81	5296.62	0.15
5299.84 5296.66	-	-	-	-	-	-	-	-	-	5299.84	5296.66	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5299.99 5296.81	-	-	-	-	-	-	-	-	-	5299.99	5296.81	-
SDP7	72	404.85	181.51	27.82	-	-	12.03	0.0091	5297.08	5299.99	5296.81	-
5303.48 5300.29	-	-	-	-	-	-	-	-	-	5303.48	5300.29	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5312.59 5300.26	-	-	-	-	-	-	-	-	-	5312.59	5300.26	-
SDP-9-58	72	404.85	7.50	28.17	3.04	5.36	12.34	-	5303.22	5312.59	5300.26	-
5312.86 5300.52	-	-	-	-	-	-	-	-	-	5312.86	5300.52	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5312.86 5300.52	-	-	-	-	-	-	-	-	-	5312.86	5300.52	-
SDP-9-59	72	404.85	4.00	28.17	3.04	5.36	12.34	-	5303.48	5312.86	5300.52	-
5313.00 5300.66	-	-	-	-	-	-	-	-	-	5313.00	5300.66	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5313.00 5300.66	-	-	-	-	-	-	-	-	-	5313.00	5300.66	-
SDP-9-60	72	404.85	147.84	28.17	3.04	5.36	12.34	-	5303.62	5313.00	5300.66	-
5318.06 5305.73	-	-	-	-	-	-	-	-	-	5318.06	5305.73	-
SDMH-9-16	-	-	-	-	-	-	-	-	-	-	-	-
5318.06 5305.73	5318.50	-	-	-	-	-	-	-	-	5318.06	5305.73	-
SDP-9-61	72	404.85	4.00	28.17	3.04	5.36	12.34	-	5308.69	5318.06	5305.73	-
5318.10 5305.76	-	-	-	-	-	-	-	-	-	5318.10	5305.76	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5318.10 5305.76	-	-	-	-	-	-	-	-	-	5318.10	5305.76	-
SDP-9-62	72	404.85	4.00	28.17	3.04	5.36	12.34	-	5308.72	5318.10	5305.76	-
5318.24 5305.90	-	-	-	-	-	-	-	-	-	5318.24	5305.90	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5321.70 5305.60	-	-	-	-	-	-	-	-	-	5321.70	5305.60	-
SDP-9-63	72	404.85	4.00	32.18	2.74	5.36	16.09	-	5308.86	5321.70	5305.60	-
5321.90 5305.80	-	-	-	-	-	-	-	-	-	5321.90	5305.80	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5322.05 5305.94	-	-	-	-	-	-	-	-	-	5322.05	5305.94	-
SDP-9-64	66	404.85	161.16	32.20	2.88	5.21	16.11	-	5308.56	5322.05	5305.94	-
5329.95 5313.84	-	-	-	-	-	-	-	-	-	5329.95	5313.84	-
SDMH-9-17	-	-	-	-	-	-	-	-	-	-	-	-
5329.95 5313.84	5324.56	-	-	-	-	-	-	-	-	5329.95	5313.84	-
SDP-9-65	66	404.85	4.00	32.20	2.88	5.21	16.11	-	5316.46	5329.95	5313.84	-
5330.00 5313.89	-	-	-	-	-	-	-	-	-	5330.00	5313.89	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5330.00 5313.89	-	-	-	-	-	-	-	-	-	5330.00	5313.89	-
SDP-9-66	66	404.85	4.00	32.20	2.88	5.21	16.11	-	5316.51	5330.00	5313.89	-
5330.20 5314.09	-	-	-	-	-	-	-	-	-	5330.20	5314.09	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5330.20 5314.09	-	-	-	-	-	-	-	-	-	5330.20	5314.09	-
SDP-9-67	66	404.85	3.04	32.20	2.88	5.21	16.11	-	5316.71	5330.20	5314.09	-
5330.35 5314.24	-	-	-	-	-	-	-	-	-	5330.35	5314.24	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
5330.35 5314.24	-	-	-	-	-	-	-	-	-	5330.35	5314.24	-
SDP-9-68	66	404.85	218.63	32.20	2.88	5.21	16.11	-	5316.86	5330.35	5314.24	-

## SD network analysis.txt

5341.12 5325.01	-	-	-	-	-	-	-	-	-	5341.12 5325.01	-
SDMH-9-18	-	-	-	-	-	-	-	-	-	-	-
5341.12 5325.01 5335.16	-	-	-	-	-	-	-	-	-	5341.12 5325.01	-
SDP-9-71	66	390.09	4.00	31.91	2.81	5.17	15.82	-	5327.73 5340.86 5325.04	-	-
5340.91 5325.09	-	-	-	31.91	-	-	15.82	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-
5340.91 5325.09	-	-	-	31.91	-	-	15.82	-	-	-	-
SDP-9-72	66	390.09	4.00	31.91	2.81	5.17	15.82	-	5327.78 5340.91 5325.09	-	-
5341.11 5325.29	-	-	-	30.66	-	-	14.61	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-
5340.00 5325.38	-	-	-	30.66	-	-	14.61	-	-	-	-
SDP-9-73	66	390.09	208.67	30.66	2.90	5.17	14.61	-	5327.98 5340.00 5325.38	-	-
5349.38 5334.77	-	-	-	30.66	-	-	14.61	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-
5349.38 5334.77	-	-	-	30.66	-	-	14.61	-	-	-	-
SDP-9-74	66	390.09	4.00	30.66	2.90	5.17	14.61	-	5337.36 5349.38 5334.77	-	-
5349.56 5334.95	-	-	-	32.50	-	-	16.41	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-
5351.23 5334.81	-	-	-	32.50	-	-	16.41	-	-	-	-
SDP-9-75	66	390.09	4.01	32.50	2.77	5.17	16.41	-	5337.54 5351.23 5334.81	-	-
5351.44 5335.02	-	-	-	32.50	-	-	16.41	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-
5351.44 5335.02	-	-	-	32.50	-	-	16.41	-	-	-	-
SDP-9-76	66	390.09	4.01	32.50	2.77	5.17	16.41	-	5337.75 5351.44 5335.02	-	-
5351.49 5335.08	-	-	-	-	-	-	-	-	-	-	-
SDMH-9-19	-	-	-	-	-	-	-	-	-	-	-
5351.49 5335.08 5346.28	-	-	-	-	-	-	-	-	-	-	-
SDP-9-77	66	390.09	4.01	32.50	2.77	5.17	16.41	-	5337.91 5351.59 5335.18	-	-
5351.65 5335.23	-	-	-	32.50	-	-	16.41	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-
5351.65 5335.23	-	-	-	32.50	-	-	16.41	-	-	-	-
SDP-9-78	66	390.09	1.37	32.50	2.77	5.17	16.41	-	5337.96 5351.65 5335.23	-	-
5351.72 5335.31	-	-	-	21.80	-	-	7.38	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-
5343.89 5336.50	-	-	-	21.80	-	-	7.38	-	-	-	-
SDP-9-79	48	217.92	24.83	21.80	2.97	3.89	7.38	-	5337.53 5343.89 5336.50	-	-
5344.51 5337.12	-	-	-	-	-	-	-	-	-	-	-
SDMH-9-20	-	-	-	-	-	-	-	-	-	-	-
5344.51 5337.12 5346.87	-	-	-	-	-	-	-	-	-	-	-
SDP-9-80	48	217.92	83.96	23.59	2.76	3.89	8.65	-	5338.25 5345.66 5337.01	-	-
5348.32 5339.68	-	-	-	-	-	-	-	-	-	-	-
SDMH-9-21	-	-	-	-	-	-	-	-	-	-	-
5348.55 5339.91 5347.55	-	-	-	-	-	-	-	-	-	-	-
(Alternate HGL and EGL Used)	-	-	-	-	-	-	-	-	-	-	-
5345.69 5341.02	-	-	-	-	-	-	-	-	-	-	-
SDP-9-81	48	217.92	209.87	17.34	-	-	4.67	0.0230	5341.02 5345.69 5341.02	4.83	-
5350.52 5345.85	-	-	-	-	-	-	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-
5350.52 5345.85	-	-	-	-	-	-	-	-	-	-	-
SDP15	48	217.92	25.39	17.34	-	-	4.67	0.0230	5342.90 5350.52 5345.85	0.58	-
5351.11 5346.43	-	-	-	-	-	-	-	-	-	-	-
SDMH21	-	-	-	-	-	-	-	-	-	-	-
5351.61 5346.94 5355.85	-	-	-	-	-	-	-	-	-	-	-
SDP37	48	217.92	56.21	17.34	-	-	4.67	0.0230	5343.21 5351.61 5346.94	1.29	-
5352.90 5348.23	-	-	-	-	-	-	-	-	-	-	-
SDMH23	-	-	-	-	-	-	-	-	-	-	-
5353.31 5348.64 5355.91	-	-	-	-	-	-	-	-	-	-	-
SDP-9-82	48	217.92	98.39	17.34	-	-	4.67	0.0230	5347.20 5353.31 5348.64	2.26	-
5355.58 5350.90	-	-	-	-	-	-	-	-	-	-	-
New Branch	-	-	-	-	-	-	-	-	-	-	-
5291.90 5287.74	-	-	-	-	-	-	-	-	-	-	-
SDP-9-303	42	138.30	35.02	14.37	-	-	3.21	0.0189	5286.47 5291.90 5287.74	0.66	-
5292.56 5289.35	-	-	-	-	-	-	-	-	-	-	-
IN-9-1	-	-	-	-	-	-	-	-	-	-	-
5293.66 5290.45 5298.55	-	-	-	-	-	-	-	-	-	-	-
SDP-9-16	42	31.30	67.18	3.25	-	-	0.16	0.0010	5286.75 5293.66 5290.45	0.07	-
5293.73 5293.56	-	-	-	-	-	-	-	-	-	-	-
SDMH-9-5	-	-	-	-	-	-	-	-	-	-	-
5293.85 5293.69 5299.62	-	-	-	-	-	-	-	-	-	-	-
SDP-9-17	36	31.30	176.08	14.06	-	-	3.07	0.0022	5291.30 5293.85 5293.69	-	-
5294.83 5294.66	-	-	-	-	-	-	-	-	-	-	-
SDMH-9-6	-	-	-	-	-	-	-	-	-	-	-
5294.83 5294.66 5303.61	-	-	-	-	-	-	-	-	-	-	-
SDP-9-18	36	31.30	449.91	13.96	1.06	1.81	3.03	-	5296.71 5297.80 5294.77	-	-
5311.35 5308.32	-	-	-	-	-	-	-	-	-	-	-
SDMH-9-7	-	-	-	-	-	-	-	-	-	-	-
5311.35 5308.32 5317.25	-	-	-	-	-	-	-	-	-	-	-
SDP-9-24	18	15.65	20.44	23.49	0.60	1.42	8.58	-	5309.25 5316.94 5308.36	-	-
5319.94 5311.36	-	-	-	-	-	-	-	-	-	-	-
IN-9-4	-	-	-	-	-	-	-	-	-	-	-
5319.94 5311.36 5317.26	-	-	-	-	-	-	-	-	-	-	-
SDP-9-25	18	8.34	97.43	9.61	0.74	1.12	1.43	-	5312.36 5313.03 5311.60	-	-
5315.53 5314.10	-	-	-	-	-	-	-	-	-	-	-
IN-9-5	-	-	-	-	-	-	-	-	-	-	-
5315.53 5314.10 5320.36	-	-	-	-	-	-	-	-	-	-	-
New Branch	-	-	-	-	-	-	-	-	-	-	-
5330.35 5314.24	-	-	-	-	-	-	-	-	-	-	-
SDMH-9-18	-	-	-	-	-	-	-	-	-	-	-
5330.35 5314.24 5335.16	-	-	-	-	-	-	-	-	-	-	-

SD network analysis.txt													
SDP-9-69	24	14.76	35.87	13.42	0.76	1.38	2.80	-	5332.38	5333.94	5331.14	-	-
5335.31 5332.52	-	-	-	-	-	-	-	-	-	5335.31	5332.52	-	-
IN-9-15	-	-	-	-	-	-	-	-	-	-	-	-	-
5335.31 5332.52 5335.85	18	9.02	40.06	12.63	0.64	1.16	2.48	-	5333.35	5334.97	5332.49	-	-
SDP-9-70	-	-	-	-	-	-	-	-	-	5336.91	5334.43	-	-
5336.91 5334.43	-	-	-	-	-	-	-	-	-	-	-	-	-
IN-9-16	-	-	-	-	-	-	-	-	-	-	-	-	-
5336.91 5334.43 5337.80	-	-	-	-	-	-	-	-	-	-	-	-	-
New Branch	-	-	-	-	-	-	-	-	-	-	-	-	-
5347.70 5337.12	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-83	66	172.17	6.64	26.10	1.77	3.67	10.58	-	5338.03	5344.89	5334.30	-	-
5345.23 5334.65	-	-	-	26.10	-	-	10.58	-	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5345.23 5334.65	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-84	66	172.17	4.22	26.10	1.77	3.67	10.58	-	5338.38	5345.23	5334.65	-	-
5345.46 5334.87	-	-	-	26.28	-	-	10.74	-	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5345.68 5334.94	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-85	60	172.17	93.09	26.28	1.84	3.76	10.74	-	5338.10	5345.68	5334.94	-	-
5350.40 5339.67	-	-	-	-	-	-	-	-	-	5350.40	5339.67	-	-
SDMH-9-22	-	-	-	-	-	-	-	-	-	-	-	-	-
5350.40 5339.67 5351.11	60	172.17	4.01	26.28	1.84	3.76	10.74	-	5342.93	5350.50	5339.77	-	-
SDP-9-86	-	-	-	26.28	-	-	10.74	-	-	-	-	-	-
5350.55 5339.82	-	-	-	-	-	-	-	-	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5350.55 5339.82	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-87	60	172.17	4.01	26.28	1.84	3.76	10.74	-	5342.98	5350.55	5339.82	-	-
5350.76 5340.03	-	-	-	15.57	-	-	3.77	-	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5344.70 5340.94	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-88	60	172.17	4.00	15.57	2.75	3.76	3.77	-	5343.19	5344.70	5340.94	-	-
5344.76 5340.99	-	-	-	15.57	-	-	3.77	-	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5344.76 5340.99	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-89	60	172.17	254.07	15.57	2.75	3.76	3.77	-	5343.24	5344.76	5340.99	-	-
5348.00 5344.23	-	-	-	15.57	-	-	3.77	-	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5348.00 5344.23	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-90	60	172.17	30.27	15.57	2.75	3.76	3.77	-	5346.48	5348.00	5344.23	-	-
5348.34 5344.58	-	-	-	-	-	-	-	-	-	5348.34	5344.58	-	-
SDMH-9-23	-	-	-	-	-	-	-	-	-	-	-	-	-
5348.34 5344.58 5354.77	60	172.17	4.00	15.57	2.75	3.76	3.77	-	5346.83	5348.34	5344.58	-	-
SDP-9-91	-	-	-	15.57	-	-	3.77	-	-	-	-	-	-
5348.36 5344.59	-	-	-	-	-	-	-	-	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5348.36 5344.59	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-92	60	172.17	4.00	15.57	2.75	3.76	3.77	-	5346.84	5348.36	5344.59	-	-
5348.41 5344.64	-	-	-	17.54	-	-	4.78	-	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5349.18 5344.39	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-93	60	172.17	4.00	17.54	2.50	3.76	4.78	-	5346.89	5349.18	5344.39	-	-
5349.25 5344.46	-	-	-	17.54	-	-	4.78	-	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5349.25 5344.46	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-94	60	172.17	291.58	17.54	2.50	3.76	4.78	-	5346.96	5349.25	5344.46	-	-
5354.29 5349.51	-	-	-	-	-	-	-	-	-	5354.29	5349.51	-	-
SDMH-9-24	-	-	-	-	-	-	-	-	-	-	-	-	-
5354.29 5349.51 5362.25	60	172.17	4.00	17.54	2.50	3.76	4.78	-	5352.15	5354.43	5349.65	-	-
SDP-9-181	-	-	-	17.54	-	-	4.78	-	-	-	-	-	-
5354.45 5349.66	-	-	-	-	-	-	-	-	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5354.45 5349.66	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-182	60	172.17	4.00	17.54	2.50	3.76	4.78	-	5352.16	5354.45	5349.66	-	-
5354.52 5349.73	-	-	-	33.98	-	-	17.94	-	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5366.70 5348.76	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-183	60	172.17	4.02	33.98	1.52	3.76	17.94	-	5352.23	5366.70	5348.76	-	-
5367.13 5349.19	-	-	-	33.98	-	-	17.94	-	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5367.13 5349.19	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-184	60	172.17	84.65	33.98	1.52	3.76	17.94	-	5352.66	5367.13	5349.19	-	-
5375.82 5357.88	-	-	-	-	-	-	-	-	-	5375.82	5357.88	-	-
SDMH-9-25	-	-	-	-	-	-	-	-	-	-	-	-	-
5375.82 5357.88 5366.75	60	172.17	4.02	33.98	1.52	3.76	17.94	-	5361.66	5376.13	5358.19	-	-
SDP-9-185	-	-	-	33.98	-	-	17.94	-	-	-	-	-	-
5376.24 5358.30	-	-	-	-	-	-	-	-	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5376.24 5358.30	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-186	60	172.17	4.02	33.98	1.52	3.76	17.94	-	5361.77	5376.24	5358.30	-	-
5376.67 5358.72	-	-	-	-	-	-	-	-	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
5362.80 5361.03	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-187	60	172.17	4.00	10.66	3.83	3.76	1.77	0.0044	5362.20	5362.80	5361.03	-	-
5362.82 5361.05	-	-	-	-	-	-	-	-	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-	-
(Alternate HGL and EGL Used)	-	-	-	-	-	-	-	-	-	-	-	-	-
5362.80 5361.60	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-188	60	172.17	8.00	8.77	-	-	1.19	0.0044	5362.22	5362.80	5361.60	0.03	-
5362.83 5361.64	-	-	-	-	-	-	-	-	-	-	-	-	-

SD network analysis.txt												
Junction	-	-	-	-	-	-	-	-	-	-	5362.83 5361.64	0.00
5362.83 5361.64	-	-	-	-	-	-	-	-	-	-	-	-
(Alternate HGL and EGL Used)	-	-	-	-	-	-	-	-	-	-	-	-
5362.84 5361.64	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-189	60	172.17	128.05	8.77	-	-	1.19	0.0044	5362.26	5362.84	5361.64	0.56
5363.39 5362.20	-	-	-	-	-	-	-	-	-	-	-	-
SDMH-9-48	-	-	-	-	-	-	-	-	-	5363.39	5362.20	0.11
5363.50 5362.31 5366.78	-	-	-	-	-	-	-	-	-	-	-	-
SDP2	60	154.02	34.00	7.84	-	-	0.96	0.0035	5362.95	5363.50	5362.31	0.12
5363.62 5362.66	-	-	-	-	-	-	-	-	-	-	-	-
SDMH5	-	-	-	-	-	-	-	-	-	5363.62	5362.66	0.10
5363.72 5362.77 5367.07	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-190	60	106.00	36.13	5.40	-	-	0.45	0.0017	5363.08	5363.72	5362.77	0.06
5363.78 5363.33	-	-	-	-	-	-	-	-	-	-	-	-
New Branch	-	-	-	-	-	-	-	-	-	-	-	-
5294.83 5291.80	-	-	-	-	-	-	-	-	-	-	-	-
SDMH-9-7	-	-	-	-	-	-	-	-	-	5294.83	5291.80	-
5294.83 5291.80 5317.25	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-22	18	15.65	17.39	28.84	0.52	1.42	12.93	-	5308.75	5320.70	5307.77	-
5325.02 5312.10	-	-	-	-	-	-	-	-	-	-	-	-
IN-9-2	-	-	-	-	-	-	-	-	-	5325.02	5312.10	-
5325.02 5312.10 5317.08	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-23	18	8.34	112.57	9.63	0.74	1.12	1.44	-	5313.18	5313.85	5312.41	-
5316.77 5315.33	-	-	-	-	-	-	-	-	-	-	-	-
IN-9-3	-	-	-	-	-	-	-	-	-	5316.77	5315.33	-
5316.77 5315.33 5320.59	-	-	-	-	-	-	-	-	-	-	-	-
New Branch	-	-	-	-	-	-	-	-	-	-	-	-
5363.39 5361.64	-	-	-	-	-	-	-	-	-	-	-	-
SDMH-9-48	-	-	-	-	-	-	-	-	-	5363.39	5361.64	0.07
5363.46 5362.27 5366.78	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-191	30	18.15	135.51	3.70	-	-	0.21	0.0020	5360.24	5363.46	5362.27	0.27
5363.73 5363.52	-	-	-	-	-	-	-	-	-	-	-	-
SDMH-9-49	-	-	-	-	-	-	-	-	-	5363.73	5363.52	0.15
5363.88 5363.66 5365.30	-	-	-	-	-	-	-	-	-	-	-	-
SDP5	18	10.27	42.55	5.81	-	-	0.52	0.0096	5360.24	5363.88	5363.66	0.41
5364.28 5363.76	-	-	-	-	-	-	-	-	-	-	-	-
IN-9-17	-	-	-	-	-	-	-	-	-	5364.28	5363.76	-
5364.28 5363.76 5364.66	-	-	-	-	-	-	-	-	-	-	-	-
New Branch	-	-	-	-	-	-	-	-	-	-	-	-
5363.62 5362.66	-	-	-	-	-	-	-	-	-	-	-	-
SDMH5	-	-	-	-	-	-	-	-	-	5363.62	5362.66	0.17
5363.79 5362.83 5367.07	-	-	-	-	-	-	-	-	-	-	-	-
SDP3	36	48.02	375.69	6.79	-	-	0.72	0.0052	5361.18	5363.79	5362.83	1.95
5365.73 5365.02	-	-	-	-	-	-	-	-	-	-	-	-
SDMH3	-	-	-	-	-	-	-	-	-	5365.73	5365.02	0.23
5365.96 5365.25 5366.82	-	-	-	-	-	-	-	-	-	-	-	-
SDP4	36	48.02	263.68	6.79	-	-	0.72	0.0052	5363.12	5365.96	5365.25	1.37
5367.33 5366.61	-	-	-	-	-	-	-	-	-	-	-	-
SDMH2	-	-	-	-	-	-	-	-	-	5367.33	5366.61	0.19
5367.52 5366.81 5369.05	-	-	-	-	-	-	-	-	-	-	-	-
SDP6	36	48.02	321.25	6.79	-	-	0.72	0.0052	5364.52	5367.52	5366.81	1.67
5369.19 5368.47	-	-	-	-	-	-	-	-	-	-	-	-
Outfall	-	-	-	-	-	-	-	-	-	-	-	-
5335.80	-	-	-	-	-	-	-	-	-	-	-	-
(Alternate HGL and EGL Used)	-	-	-	-	-	-	-	-	-	-	-	-
5338.61 5335.80	-	-	-	-	-	-	-	-	-	-	-	-
SDP18	54	213.68	422.55	13.44	-	-	2.81	0.0118	5335.80	5338.61	5335.80	4.99
5343.59 5340.79	-	-	-	-	-	-	-	-	-	5343.59	5340.79	2.12
SDMH4	-	-	-	-	-	-	-	-	-	-	-	-
5345.71 5342.91 5343.07	-	-	-	-	-	-	-	-	-	-	-	-
SDP17	48	213.68	218.75	17.00	-	-	4.49	0.0221	5339.17	5345.71	5342.91	4.84
5350.55 5346.06	-	-	-	-	-	-	-	-	-	-	-	-
SDMH6	-	-	-	-	-	-	-	-	-	5350.55	5346.06	1.13
5351.68 5347.19 5349.86	-	-	-	-	-	-	-	-	-	-	-	-
SDP16	48	213.68	315.12	23.10	-	-	8.30	0.0221	5345.96	5351.68	5347.19	-
5359.34 5354.85	-	-	-	-	-	-	-	-	-	-	-	-
SDMH8	-	-	-	-	-	-	-	-	-	5359.34	5354.85	-
5359.34 5354.85 5360.09	-	-	-	-	-	-	-	-	-	-	-	-
SDP35	48	213.68	450.15	20.86	3.04	3.88	6.76	-	5356.19	5361.99	5355.23	-
5373.44 5366.68	-	-	-	-	-	-	-	-	-	-	-	-
New Branch	-	-	-	-	-	-	-	-	-	-	-	-
5359.34 5352.58	-	-	-	-	-	-	-	-	-	-	-	-
SDMH1	-	-	-	-	-	-	-	-	-	5359.34	5352.58	-
5359.34 5359.34 5371.64	-	-	-	-	-	-	-	-	-	-	-	-
(Alternate HGL and EGL Used)	-	-	-	-	-	-	-	-	-	-	-	-
5372.35 5368.14	-	-	-	-	-	-	-	-	-	-	-	-
SDP40	54	261.70	199.20	22.53	-	-	7.89	0.0177	5368.24	5372.35	5368.14	-
5376.14 5371.93	-	-	-	-	-	-	-	-	-	-	-	-
SDMH10	-	-	-	-	-	-	-	-	-	5376.14	5371.93	-
5376.14 5371.93 5376.85	-	-	-	-	-	-	-	-	-	-	-	-
SDP13	48	261.30	450.29	24.57	3.16	3.94	9.38	-	5372.95	5381.49	5372.11	-
5397.27 5387.89	-	-	-	-	-	-	-	-	-	-	-	-
SDMH15	-	-	-	-	-	-	-	-	-	5397.27	5387.89	-
5397.27 5387.89 5392.73	-	-	-	-	-	-	-	-	-	-	-	-
SDP12	48	261.30	450.32	25.23	3.07	3.94	9.89	-	5388.83	5397.79	5387.90	-
5414.53 5404.64	-	-	-	-	-	-	-	-	-	-	-	-

## SD network analysis.txt

SDMH16	-	-	-	-	-	-	-	-	-	-	-	5414.53	5404.64	-
5414.53 5404.64 5409.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP11	48	261.30	356.10	24.11	3.22	3.94	9.03	-	-	-	-	5405.67	5413.92	5404.89
5425.90 5416.87	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDMH17	-	-	-	-	-	-	-	-	-	-	-	5425.90	5416.87	-
5425.90 5416.87 5421.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP10	48	261.30	273.32	24.00	3.23	3.94	8.95	-	-	-	-	5417.75	5425.94	5416.98
5434.97 5426.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDMH18	-	-	-	-	-	-	-	-	-	-	-	5434.97	5426.01	4.48
5439.44 5430.49 5430.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(Alternate HGL and EGL Used)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5438.90 5432.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP33	48	260.90	346.12	20.76	-	-	6.70	0.0330	5432.20	5438.90	5432.20	11.42	-	-
5450.32 5443.62	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Branch	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5363.73 5363.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDMH-9-49	-	-	-	-	-	-	-	-	-	-	-	5363.73	5363.52	0.12
5363.84 5363.63 5365.30	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-193	18	7.88	72.04	4.46	-	-	0.31	0.0056	5360.22	5363.84	5363.63	0.41	-	-
5364.25 5363.94	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IN-9-18	-	-	-	-	-	-	-	-	-	-	-	5364.25	5363.94	-
5364.25 5363.94 5364.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Branch	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5372.35 5368.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDMH10	-	-	-	-	-	-	-	-	-	-	-	5372.35	5368.14	-
5372.35 5368.14 5376.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP29	24	0.20	37.98	4.76	0.08	0.15	0.35	-	5370.95	5369.38	5369.03	-	-	-
5372.24 5371.89	-	-	-	-	-	-	-	-	-	-	-	5372.24	5371.89	-
IN11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5372.24 5371.89 5376.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP39	18	0.10	48.04	3.06	0.07	0.12	0.15	-	5373.31	5372.03	5371.88	-	-	-
5373.71 5373.56	-	-	-	-	-	-	-	-	-	-	-	5373.71	5373.56	-
IN14	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5373.71 5373.56 5377.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Branch	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5372.35 5368.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDMH10	-	-	-	-	-	-	-	-	-	-	-	5372.35	5368.14	-
5372.35 5368.14 5376.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP30	24	0.20	91.86	3.91	0.09	0.15	0.24	-	5370.95	5369.28	5369.04	-	-	-
5373.62 5373.38	-	-	-	-	-	-	-	-	-	-	-	5373.62	5373.38	-
IN8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5373.62 5373.38 5377.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP38	18	0.10	48.04	3.06	0.07	0.12	0.15	-	5374.79	5373.51	5373.36	-	-	-
5375.19 5375.04	-	-	-	-	-	-	-	-	-	-	-	5375.19	5375.04	-
IN3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5375.19 5375.04 5378.97	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Branch	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5425.90 5416.95	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDMH18	-	-	-	-	-	-	-	-	-	-	-	5425.90	5416.95	-
5425.90 5416.95 5430.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP9	36	0.40	220.70	3.85	0.13	0.19	0.23	-	5425.88	5423.24	5423.01	-	-	-
5429.90 5429.67	-	-	-	-	-	-	-	-	-	-	-	5429.90	5429.67	-
SDMH19	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5429.90 5429.67 5437.54	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP8	24	0.20	37.97	4.71	0.08	0.15	0.34	-	5431.64	5430.07	5429.72	-	-	-
5432.92 5432.57	-	-	-	-	-	-	-	-	-	-	-	5432.92	5432.57	-
IN4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5432.92 5432.57 5436.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP1	18	0.10	48.05	3.19	0.07	0.12	0.16	-	5433.99	5432.72	5432.56	-	-	-
5434.62 5434.46	-	-	-	-	-	-	-	-	-	-	-	5434.62	5434.46	-
IN5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5434.62 5434.46 5438.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Branch	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5425.90 5425.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDMH19	-	-	-	-	-	-	-	-	-	-	-	5425.90	5425.67	-
5425.90 5425.67 5437.54	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP32	24	0.20	78.59	3.56	0.10	0.15	0.20	-	5431.64	5429.93	5429.74	-	-	-
5432.78 5432.59	-	-	-	-	-	-	-	-	-	-	-	5432.78	5432.59	-
IN7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5432.78 5432.59 5436.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP31	18	0.10	47.99	3.19	0.07	0.12	0.16	-	5433.99	5432.72	5432.57	-	-	-
5434.62 5434.47	-	-	-	-	-	-	-	-	-	-	-	5434.62	5434.47	-
IN6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5434.62 5434.47 5438.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B:

LOSSES	Str_ID	Hf	Hb	Hstr	Hc	He	Hj	Total	LOSS_COEFFICIENTS	CD	Cd	Cq
Cp	cb	K							Dstr	Ko		
Outfall	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-1	-	1.13	-	-	-	-	-	1.13	-	-	-	-

## SD network analysis.txt

-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	SDMH-9-1	-	-	0.16	-	-	-	0.16		7.53	0.100	1.000	0.522	1.000
1.000	1.000	0.052	-	-	-	-	-	-		-	-	-	-	-
-	SDP-9-2	0.03	-	-	-	-	-	0.03		-	-	-	-	-
-	Junction	-	-	-	-	-	-	-		-	-	-	-	-
-	SDP-9-3	0.03	-	-	-	-	-	0.03		-	-	-	-	-
-	Junction	-	0.27	-	-	-	-	0.27		-	-	-	-	-
-	SDP-9-4	0.03	-	-	-	-	-	0.03		-	-	-	-	-
-	Junction	-	0.00	-	-	-	-	0.00		-	-	-	-	-
-	SDP-9-5	1.52	-	-	-	-	-	1.52		-	-	-	-	-
-	SDMH-9-2	-	-	0.18	-	-	-	0.18		8.73	0.100	1.000	0.571	1.000
1.000	1.000	0.057	-	-	-	-	-	-		-	-	-	-	-
-	SDP-9-6	0.03	-	-	-	-	-	0.03		-	-	-	-	-
-	Junction	-	0.00	-	-	-	-	0.00		-	-	-	-	-
-	SDP-9-7	0.03	-	-	-	-	-	0.03		-	-	-	-	-
-	Junction	-	0.00	-	-	0.37	-	0.38		-	-	-	-	-
-	SDP-9-8	0.04	-	-	-	-	-	0.04		-	-	-	-	-
-	Junction	-	2.49	-	-	-	-	2.49		-	-	-	-	-
-	SDP-9-204	3.49	0.18	-	-	-	-	3.68		-	-	-	-	-
-	SDMH-9-0	-	-	0.22	-	-	-	0.22		4.98	0.126	1.000	0.426	1.000
1.000	1.000	0.054	-	-	-	-	-	-		-	-	-	-	-
-	SDP-9-201	0.04	-	-	-	-	-	0.04		-	-	-	-	-
-	Junction	-	0.00	-	-	-	-	0.00		-	-	-	-	-
-	SDP-9-200	0.04	-	-	-	-	-	0.04		-	-	-	-	-
-	Junction	-	0.00	-	-	-	-	0.00		-	-	-	-	-
-	SDP-9-0	0.35	0.02	-	-	-	-	0.37		-	-	-	-	-
-	SDMH-9-4	-	-	0.24	-	-	-	0.24		5.61	0.126	1.000	0.458	1.000
1.000	1.000	0.058	-	-	-	-	-	-		-	-	-	-	-
-	SDP-9-13	0.04	-	-	-	-	-	0.04		-	-	-	-	-
-	Junction	-	0.00	-	-	-	-	0.00		-	-	-	-	-
-	SDP-9-301	0.01	-	-	-	-	-	0.01		-	-	-	-	-
-	Junction	-	0.00	-	-	-	3.94	3.94		-	-	-	-	-
-	SDP-9-302	0.04	-	-	-	-	-	0.04		-	-	-	-	-
-	Junction	-	0.00	-	-	-	-	0.00		-	-	-	-	-
-	SDP-9-27	0.05	-	-	-	-	-	0.05		-	-	-	-	-
-	Junction	-	0.00	-	-	0.29	-	0.29		-	-	-	-	-
-	SDP-9-28	1.36	0.06	-	-	-	-	1.42		-	-	-	-	-
-	Junction	-	0.00	-	-	-	-	0.00		-	-	-	-	-
-	SDP-9-29	0.12	-	-	-	-	-	0.12		-	-	-	-	-
-	SDMH-9-8	-	-	0.18	-	-	-	0.18		7.03	0.100	1.000	0.550	1.000
1.000	1.000	0.055	-	-	-	-	-	-		-	-	-	-	-
-	SDP-9-33	0.04	-	-	-	-	-	0.04		-	-	-	-	-
-	Junction	-	-	-	-	-	-	-		-	-	-	-	-
-	SDP-9-34	0.04	-	-	-	-	-	0.04		-	-	-	-	-
-	Junction	-	0.11	-	-	-	-	0.11		-	-	-	-	-
-	SDP-9-35	0.04	-	-	-	-	-	0.04		-	-	-	-	-
-	Junction	-	0.00	-	-	-	-	0.00		-	-	-	-	-
-	SDP-9-36	0.82	-	-	-	-	-	0.82		-	-	-	-	-
-	SDMH-9-10	-	-	0.14	-	-	-	0.14		4.90	0.100	1.000	0.443	1.000
1.000	1.000	0.044	-	-	-	-	-	-		-	-	-	-	-
-	SDP-9-37	0.04	-	-	-	-	-	0.04		-	-	-	-	-
-	Junction	-	-	-	-	-	-	-		-	-	-	-	-

SD network analysis.txt									
SDP-9-38	0.04	-	-	-	-	0.04	-	-	-
Junction	-	0.15	-	-	-	0.15	-	-	-
SDP7	1.66	-	-	-	-	1.66	-	-	-
Junction	-	-	-	-	-	-	-	-	-
SDP-9-58	-	-	-	-	-	SuperCrt	-	-	-
Junction	-	-	-	-	-	-	-	-	-
SDP-9-59	-	-	-	-	-	SuperCrt	-	-	-
Junction	-	-	-	-	-	-	-	-	-
SDP-9-60	-	-	-	-	-	SuperCrt	-	-	-
SDMH-9-16	-	-	-	-	-	-	-	-	-
SDP-9-61	-	-	-	-	-	SuperCrt	-	-	-
Junction	-	-	-	-	-	-	-	-	-
SDP-9-62	-	-	-	-	-	SuperCrt	-	-	-
Junction	-	-	-	-	-	-	-	-	-
SDP-9-63	-	-	-	-	-	SuperCrt	-	-	-
Junction	-	-	-	-	-	-	-	-	-
SDP-9-64	-	-	-	-	-	SuperCrt	-	-	-
SDMH-9-17	-	-	-	-	-	-	-	-	-
SDP-9-65	-	-	-	-	-	SuperCrt	-	-	-
Junction	-	-	-	-	-	-	-	-	-
SDP-9-66	-	-	-	-	-	SuperCrt	-	-	-
Junction	-	-	-	-	-	-	-	-	-
SDP-9-67	-	-	-	-	-	SuperCrt	-	-	-
Junction	-	-	-	-	-	-	-	-	-
SDP-9-68	-	-	-	-	-	SuperCrt	-	-	-
SDMH-9-18	-	-	-	-	-	-	-	-	-
SDP-9-71	-	-	-	-	-	SuperCrt	-	-	-
Junction	-	-	-	-	-	-	-	-	-
SDP-9-72	-	-	-	-	-	SuperCrt	-	-	-
Junction	-	-	-	-	-	-	-	-	-
SDP-9-73	-	-	-	-	-	SuperCrt	-	-	-
Junction	-	-	-	-	-	-	-	-	-
SDP-9-74	-	-	-	-	-	SuperCrt	-	-	-
Junction	-	-	-	-	-	-	-	-	-
SDP-9-75	-	-	-	-	-	SuperCrt	-	-	-
Junction	-	-	-	-	-	-	-	-	-
SDP-9-76	-	-	-	-	-	SuperCrt	-	-	-
SDMH-9-19	-	-	-	-	-	-	-	-	-
SDP-9-77	-	-	-	-	-	SuperCrt	-	-	-
Junction	-	-	-	-	-	-	-	-	-
SDP-9-78	-	-	-	-	-	SuperCrt	-	-	-
Junction	-	-	-	-	-	-	-	-	-
SDP-9-79	-	-	-	-	-	SuperCrt	-	-	-
SDMH-9-20	-	-	-	-	-	User	-	-	-
SDP-9-80	-	-	-	-	-	SuperCrt	-	-	-
SDMH-9-21	-	-	-	-	-	User	2.76	-	-

## SD network analysis.txt

SDP-9-81	4.83	-	-	-	-	-	4.83	-	-	-	-	-
Junction	-	0.00	-	-	-	-	0.00	-	-	-	-	-
SDP15	0.58	-	-	-	-	-	0.58	-	-	-	-	-
SDMH21	-	-	0.50	-	-	-	0.50	7.32	0.150	1.000	0.719	1.000
1.000 1.000	0.108	-	-	-	-	-	-	-	-	-	-	-
SDP37	1.29	-	-	-	-	-	1.29	-	-	-	-	-
SDMH23	-	-	0.41	-	-	-	0.41	5.13	0.150	1.000	0.581	1.000
1.000 1.000	0.087	-	-	-	-	-	-	-	-	-	-	-
SDP-9-82	2.26	-	-	-	-	-	2.26	-	-	-	-	-
New Branch	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-303	0.66	-	-	-	-	-	0.66	-	-	-	-	-
IN-9-1	-	-	-	-	-	-	User	6.18	-	-	-	-
SDP-9-16	0.07	-	-	-	-	-	0.07	-	-	-	-	-
SDMH-9-5	-	-	0.12	-	-	-	0.12	5.36	1.143	1.000	0.646	1.000
1.000 1.000	0.738	-	-	-	-	-	-	-	-	-	-	-
SDP-9-17	0.39	0.01	-	-	-	-	0.39	-	-	-	-	-
SDMH-9-6	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-18	-	-	-	-	-	-	SuperCrt	-	-	-	-	-
SDMH-9-7	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-24	-	-	-	-	-	-	SuperCrt	-	-	-	-	-
IN-9-4	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-25	-	-	-	-	-	-	SuperCrt	-	-	-	-	-
IN-9-5	-	-	-	-	-	-	-	0.74	-	-	-	-
New Branch	-	-	-	-	-	-	-	-	-	-	-	-
SDMH-9-18	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-69	-	-	-	-	-	-	SuperCrt	-	-	-	-	-
IN-9-15	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-70	-	-	-	-	-	-	SuperCrt	-	-	-	-	-
IN-9-16	-	-	-	-	-	-	-	-	-	-	-	-
New Branch	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-83	-	-	-	-	-	-	SuperCrt	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-84	-	-	-	-	-	-	SuperCrt	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-85	-	-	-	-	-	-	SuperCrt	-	-	-	-	-
SDMH-9-22	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-86	-	-	-	-	-	-	SuperCrt	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-87	-	-	-	-	-	-	SuperCrt	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-88	-	-	-	-	-	-	SuperCrt	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-89	-	-	-	-	-	-	SuperCrt	-	-	-	-	-
Junction	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-90	-	-	-	-	-	-	SuperCrt	-	-	-	-	-
SDMH-9-23	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-91	-	-	-	-	-	-	SuperCrt	-	-	-	-	-

## SD network analysis.txt

Junction	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDP-9-92	-	-	-	-	-	-	-	SuperCrt		-	-	-	-	-
Junction	-	-	-	-	-	-	-	-		-	-	-	-	-
SDP-9-93	-	-	-	-	-	-	-	SuperCrt		-	-	-	-	-
Junction	-	-	-	-	-	-	-	-		-	-	-	-	-
SDP-9-94	-	-	-	-	-	-	-	SuperCrt		-	-	-	-	-
SDMH-9-24	-	-	-	-	-	-	-	-		-	-	-	-	-
SDP-9-181	-	-	-	-	-	-	-	SuperCrt		-	-	-	-	-
Junction	-	-	-	-	-	-	-	-		-	-	-	-	-
SDP-9-182	-	-	-	-	-	-	-	SuperCrt		-	-	-	-	-
Junction	-	-	-	-	-	-	-	-		-	-	-	-	-
SDP-9-183	-	-	-	-	-	-	-	SuperCrt		-	-	-	-	-
Junction	-	-	-	-	-	-	-	-		-	-	-	-	-
SDP-9-184	-	-	-	-	-	-	-	SuperCrt		-	-	-	-	-
SDMH-9-25	-	-	-	-	-	-	-	-		-	-	-	-	-
SDP-9-185	-	-	-	-	-	-	-	SuperCrt		-	-	-	-	-
Junction	-	-	-	-	-	-	-	-		-	-	-	-	-
SDP-9-186	-	-	-	-	-	-	-	SuperCrt		-	-	-	-	-
Junction	-	-	-	-	-	-	-	-		-	-	-	-	-
SDP-9-187	-	0.02	-	-	-	-	-	0.02		-	-	-	-	-
Junction	-	-	-	-	-	-	-	-		-	-	-	-	-
SDP-9-188	-	0.03	-	-	-	-	-	0.03		-	-	-	-	-
Junction	-	-	0.00	-	-	-	-	0.00		-	-	-	-	-
SDP-9-189	-	0.56	-	-	-	-	-	0.56		-	-	-	-	-
SDMH-9-48	1.000	1.000	0.089	-	0.11	-	-	0.11		4.46	0.160	1.000	0.467	1.185
SDP2	-	-	0.12	-	-	-	-	0.12		-	-	-	-	-
SDMH5	1.000	1.000	0.108	-	0.10	-	-	0.10		4.58	0.160	1.000	0.475	1.417
SDP-9-190	-	-	0.06	-	-	-	-	0.06		-	-	-	-	-
New Branch	-	-	-	-	-	-	-	-		-	-	-	-	-
SDMH-9-7	-	-	-	-	-	-	-	-		-	-	-	-	-
SDP-9-22	-	-	-	-	-	-	-	SuperCrt		-	-	-	-	-
IN-9-2	-	-	-	-	-	-	-	-		-	-	-	-	-
SDP-9-23	-	-	-	-	-	-	-	SuperCrt		-	-	-	-	-
IN-9-3	-	-	-	-	-	-	-	-		0.74	-	-	-	-
New Branch	-	-	-	-	-	-	-	-		-	-	-	-	-
SDMH-9-48	1.000	1.000	0.056	-	0.07	-	-	0.07		4.46	1.502	1.000	0.467	0.080
SDP-9-191	-	-	0.27	-	-	-	-	0.27		-	-	-	-	-
SDMH-9-49	1.000	1.000	0.695	-	0.15	-	-	0.15		4.90	0.960	1.000	0.748	0.967
SDP5	-	-	0.41	-	-	-	-	0.41		-	-	-	-	-
IN-9-17	-	-	-	-	-	-	-	-		3.15	-	-	-	-
New Branch	-	-	-	-	-	-	-	-		-	-	-	-	-
SDMH5	1.000	1.000	0.174	-	0.17	-	-	0.17		4.58	1.502	1.000	0.475	0.244
SDP3	-	-	1.95	-	-	-	-	1.95		-	-	-	-	-
SDMH3	-	-	-	-	0.23	-	-	0.23		5.00	0.474	1.000	0.679	1.000

SD network analysis.txt														
1.000	1.000	0.322							1.37					
-	SDP4	-	1.37	-	-	-	-	-	-		-	-	-	-
-	SDMH2	-	-	-	0.19	-	-	-	0.19		5.19	0.383	1.000	0.695 1.000
1.000	1.000	0.266							1.67					
-	SDP6	-	1.67	-	-	-	-	-	-		-	-	-	-
-	Outfall	-	-	-	-	-	-	-	-		-	-	-	-
-	SDP18	-	4.99	-	-	-	-	-	4.99		-	-	-	-
-	SDMH4	-	-	-	2.12	-	-	-	2.12		5.72	1.308	1.000	0.577 1.000
1.000	1.000	0.755							4.84		-	-	-	-
-	SDP17	-	4.84	-	-	-	-	-	-		-	-	-	-
-	SDMH6	-	-	-	1.13	-	-	-	1.13		4.20	0.487	1.000	0.515 1.000
1.000	1.000	0.251							6.97		-	-	-	-
-	SDP16	-	6.97	-	-	-	-	-	-		-	-	-	-
-	SDMH8	-	-	-	-	-	-	-	-		-	-	-	-
-	SDP35	-	-	-	-	-	-	-	SuperCrt		-	-	-	-
-	New Branch	-	-	-	-	-	-	-	-		-	-	-	-
-	SDMH1	-	-	-	-	-	-	-	User		-	-	-	-
-	SDP40	-	3.53	-	-	-	-	-	3.53		-	-	-	-
-	SDMH10	-	-	-	-	-	-	-	-		-	-	-	-
-	SDP13	-	-	-	-	-	-	-	SuperCrt		-	-	-	-
-	SDMH15	-	-	-	-	-	-	-	-		-	-	-	-
-	SDP12	-	-	-	-	-	-	-	SuperCrt		-	-	-	-
-	SDMH16	-	-	-	-	-	-	-	-		-	-	-	-
-	SDP11	-	-	-	-	-	-	-	SuperCrt		-	-	-	-
-	SDMH17	-	-	-	-	-	-	-	-		-	-	-	-
-	SDP10	-	-	-	-	-	-	-	SuperCrt		-	-	-	-
-	SDMH18	-	-	-	4.48	-	-	-	4.48		3.23	-	-	-
-	SDP33	0.500	11.42	-	-	-	-	-	11.42		-	-	-	-
-	New Branch	-	-	-	-	-	-	-	-		-	-	-	-
-	SDMH-9-49	-	-	-	0.12	-	-	-	0.12		4.90	1.415	1.000	0.748 0.522
1.000	1.000	0.553							0.41		-	-	-	-
-	SDP-9-193	-	0.41	-	-	-	-	-	-		-	-	-	-
-	IN-9-18	-	-	-	-	-	-	-	-		3.78	-	-	-
-	New Branch	-	-	-	-	-	-	-	-		-	-	-	-
-	SDMH10	-	-	-	-	-	-	-	-		-	-	-	-
-	SDP29	-	-	-	-	-	-	-	SuperCrt		-	-	-	-
-	IN11	-	-	-	-	-	-	-	-		-	-	-	-
-	SDP39	-	-	-	-	-	-	-	SuperCrt		-	-	-	-
-	IN14	-	-	-	-	-	-	-	-		0.07	-	-	-
-	New Branch	-	-	-	-	-	-	-	-		-	-	-	-
-	SDMH10	-	-	-	-	-	-	-	-		-	-	-	-
-	SDP30	-	-	-	-	-	-	-	SuperCrt		-	-	-	-
-	IN8	-	-	-	-	-	-	-	-		-	-	-	-
-	SDP38	-	-	-	-	-	-	-	SuperCrt		-	-	-	-
-	IN3	-	-	-	-	-	-	-	-		0.07	-	-	-
-	New Branch	-	-	-	-	-	-	-	-		-	-	-	-
-	SDMH18	-	-	-	-	-	-	-	-		-	-	-	-

								SD network analysis.txt						
SDP9	-	-	-	-	-	-	-	SuperCrt		-	-	-	-	-
SDMH19	-	-	-	-	-	-	-	-		-	-	-	-	-
SDP8	-	-	-	-	-	-	-	SuperCrt		-	-	-	-	-
IN4	-	-	-	-	-	-	-	-		-	-	-	-	-
SDP1	-	-	-	-	-	-	-	SuperCrt		-	-	-	-	-
IN5	-	-	-	-	-	-	-	-		0.07	-	-	-	-
New Branch	-	-	-	-	-	-	-	-		-	-	-	-	-
SDMH19	-	-	-	-	-	-	-	-		-	-	-	-	-
SDP32	-	-	-	-	-	-	-	SuperCrt		-	-	-	-	-
IN7	-	-	-	-	-	-	-	-		-	-	-	-	-
SDP31	-	-	-	-	-	-	-	SuperCrt		-	-	-	-	-
IN6	-	-	-	-	-	-	-	-		0.07	-	-	-	-