

Design Settings

Rainfall Methodology	FEH-13	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	1.200
Return Period (years)	100	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	40	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	✓
CV	1.000	Connection Type	Level Soffits		
Time of Entry (mins)	4.00	Minimum Backdrop Height (m)	0.050		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Depth (m)
✓ Depth/Area 1			36.500		0.560
✓ 1	0.027	4.00	36.500	350	0.550

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
? 1.000	1	Depth/Area 1	1.025	0.600	35.950	35.940	0.010	102.5	150	5.00	50.0

Name	US Node	DS Node	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	1	Depth/Area 1	0.992	17.5	6.8	0.400	0.410	0.027	0.0	65	0.929

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	1.025	102.5	150	Circular	36.500	35.950	0.400	36.500	35.940	0.410

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Node Type
1.000	1	350	Manhole	Adoptable	Depth/Area 1	Junction

Manhole Schedule

Node	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
Depth/Area 1	36.500	0.560			1	1.000	35.940	150
1	36.500	0.550	350		0	1.000	35.950	150

Simulation Settings

Rainfall Methodology	FEH-13	Analysis Speed	Normal	Drain Down Time (mins)	1440	Check Discharge Rate(s)	x
Summer CV	1.000	Skip Steady State	x	Additional Storage (m³/ha)	0.0	Check Discharge Volume	x

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0	100	0	0	0
10	40	0	0	100	40	0	0
30	0	0	0				



Meridian Civils

Issue P2

File: driveway.pfd

Network: Storm Network

Mark Naumann

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1 ORCHARD WAY

PROPOSED INFILTRATION

Node Depth/Area 1 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.08300	Porosity	0.95	Width (m)	5.000	Depth (m)	0.450
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	35.740	Length (m)	10.000	Inf Depth (m)	
Safety Factor	2.0	Time to half empty (mins)	309	Slope (1:X)	9999.0		

Results for 2 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	Depth/Area 1	152	35.809	-0.131	1.8	3.2588	0.0000	OK
15 minute summer	1	10	36.014	0.064	5.7	0.0062	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
60 minute summer	Depth/Area 1	Infiltration		0.6			
15 minute summer	1	1.000	Depth/Area 1	5.7	0.840	0.325	0.0070

Results for 10 year +40% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	Depth/Area 1	148	35.939	-0.001	5.0	9.4228	0.0000	OK
15 minute summer	1	10	36.069	0.119	15.3	0.0115	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
15 minute summer	Depth/Area 1	Infiltration		0.6			
15 minute summer	1	1.000	Depth/Area 1	15.3	1.068	0.873	0.0147

Results for 30 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	Depth/Area 1	114	35.913	-0.027	5.9	8.2003	0.0000	OK
15 minute summer	1	10	36.063	0.113	14.2	0.0108	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
15 minute summer	Depth/Area 1	Infiltration		0.6			
15 minute summer	1	1.000	Depth/Area 1	14.2	1.053	0.810	0.0138

Results for 100 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	Depth/Area 1	120	35.969	0.029	7.4	10.8502	0.0000	OK
15 minute summer	1	10	36.090	0.140	17.8	0.0134	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
15 minute summer	Depth/Area 1	Infiltration		0.6			
15 minute summer	1	1.000	Depth/Area 1	17.8	1.089	1.015	0.0167

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	Depth/Area 1	180	36.081	0.141	7.8	16.1963	0.0000	OK
15 minute summer	1	10	36.131	0.181	24.9	0.0174	0.0000	SURCHARGED

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
15 minute summer	Depth/Area 1	Infiltration		0.6			
15 minute summer	1	1.000	Depth/Area 1	24.9	1.413	1.418	0.0177