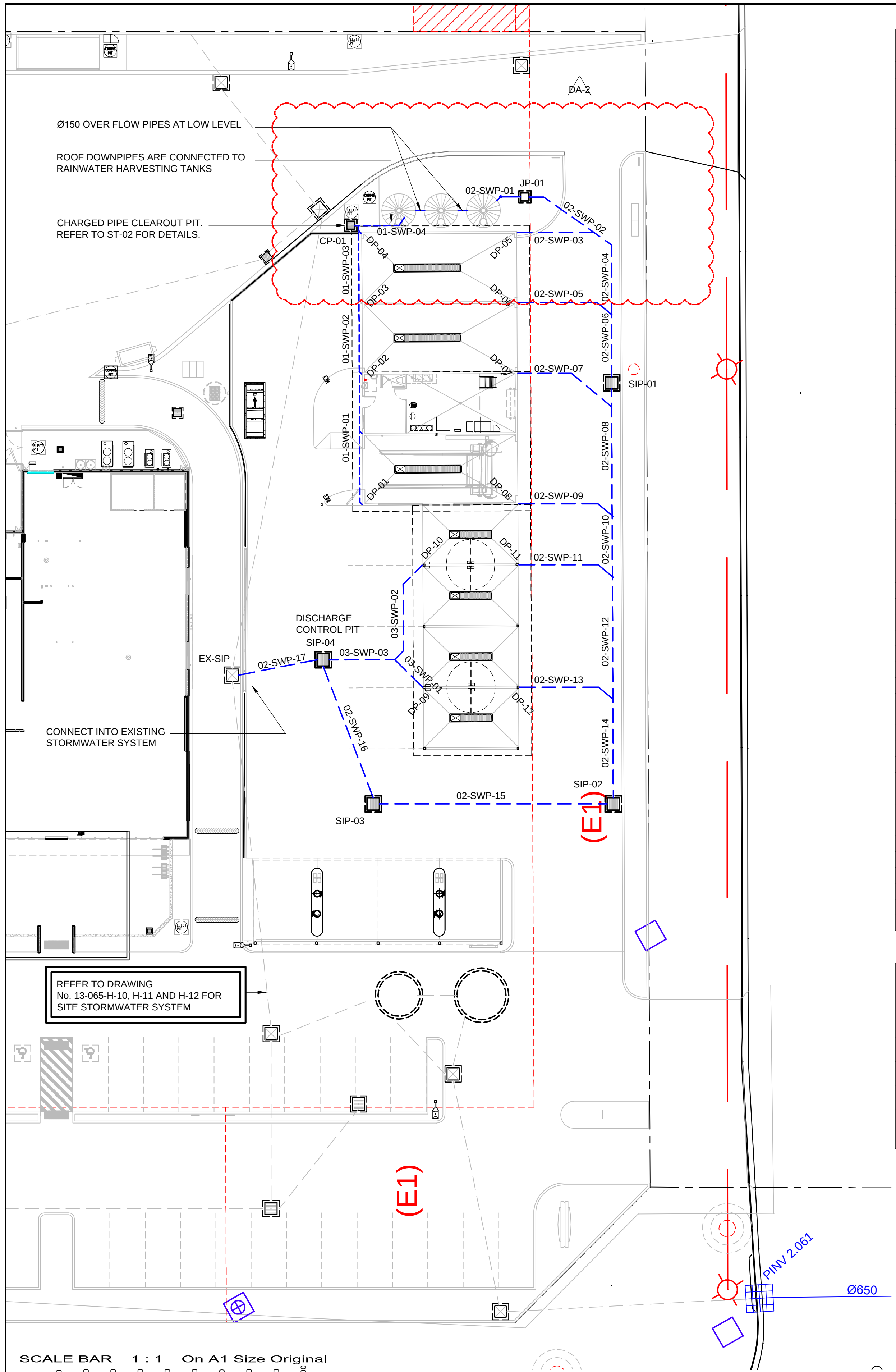

SCALE BAR 1 : 1 On A1 Size Original

0 10 20 30 40 50 60 70 80 90 100

0 20 40 60 40 100 120 140 160 180 200

SCALE BAR 1 : 2 On A3 Size Reduction

DRAINAGE CALCULATIONS

PIPED DRAINAGE SYSTEM BASED ON FOLLOWING ASSUMPTIONS :

ARI =	5	Years	100	Years	RUNOFF COEFFICIENTS :	
DURATION =	5	Mins.	5	Mins.	ROOF AREAS :	1.00
INTENSITY =	140	mm/hr		mm/hr	PAVEMENTS :	0.90
MIN. PIPE GRADIENT :	0.500	%			GARDEN AREAS :	0.75

PIPE No.	DESCRIPTION	FROM	TO	C	INTENSITY mm/hr	AREA m2	DISCHARGE Q=CIA/3600 l/sec	CUM. DISCHARGE l/sec	Min. PIPE Dia.	Min. PIPE FALL	ADOPT PIPE Dia.	PIPE CAPACITY l/sec	PIPE RUN m	INLET INVERT LEVEL	OUTLET INVERT LEVEL
PIPE RUN No. 1															
01-SWP-01	Roof	DP-01	01-SWP-02	1.00	140	47	1.8	1.8	100	1.00%	100	7	10	3.85	3.75
01-SWP-02	Collector	01-SWP-01	01-SWP-03				1.8								
		DP-02		1.00	140	47	1.8	3.6	100	1.00%	100	7	5	3.75	3.70
01-SWP-03	Collector	01-SWP-02	01-SWP-04				3.6								
		DP-03		1.00	140	47	1.8	5.4	100	1.00%	100	7	6	3.70	3.65
01-SWP-04	Collector	CP-01	TANKS				5.4								
		DP-04		1.00	140	47	1.8	7.2	150	1.00%	150	22	3	3.65	TOP OF TANK
PIPE RUN No. 2															
02-SWP-01	Collector	TANKS	JP-01				7.2	7.2	150	1.00%	150	22	1	TANK	3.90
02-SWP-02	Collector	JP-01	02-SWP-04				7.2	7.2	150	1.00%	150	22	8	3.90	3.83
02-SWP-03	Roof	DP-05	02-SWP-04	1.00	140	21	0.8	0.8	100	1.00%	100	7	6	3.85	3.83
02-SWP-04	Collector	02-SWP-02	02-SWP-06				7.2								
							0.8	8.1	150	1.00%	150	22	5	3.83	3.77
02-SWP-05	Roof	DP-06	02-SWP-06	1.00	140	21	0.8	0.8	100	1.00%	100	7	6	3.85	3.77
02-SWP-06	Collector	02-SWP-04	SIP-01				8.1								
							0.8	8.9	150	1.00%	150	22	5	3.77	3.73
02-SWP-07	Roof	DP-07	02-SWP-08	1.00	140	21	0.8	0.8	100	1.00%	100	7	5	3.85	3.73
02-SWP-08	Collector	SIP-01	02-SWP10				8.9								
	Pavement			0.90	140	170	6.0								
							0.8	15.6	150	0.50%	225	43	9	3.33	3.28
02-SWP-09	Roof	DP-08	02-SWP-10	1.00	140	21	0.8	0.8	100	1.00%	100	7	5	3.85	3.28
02-SWP-10	Collector	02-SWP-08	02-SWP-12				15.6								
							0.8	16.4	150	0.50%	225	43	4	3.28	3.26
02-SWP-11	Roof	DP-11	02-SWP-10	1.00	140	22	0.8	0.8	100	1.00%	100	7	5	3.85	3.26
02-SWP-12	Collector	02-SWP-10	02-SWP-14				16.4								
							0.8	17.3	150	0.50%	225	43	9	3.26	3.21
02-SWP-13	Roof	DP-12	02-SWP-14	1.00	140	22	0.8	0.8	100	1.00%	100	7	5	3.85	3.21
02-SWP-14	Collector	02-SWP-12	SIP-02				17.3								
							0.8	18.1	150	0.50%	225	43	7	3.21	3.18
02-SWP-15	Collector	SIP-02	SIP-03				18.1								
	Pavement			0.90	140	170	6.0	24.1	225	0.50%	225	43	17	3.18	3.10
02-SWP-16	Collector	SIP-03	SIP-04				24.1								
	Pavement			0.90	140	280	9.8	33.8	225	0.50%	225	43	10	3.10	3.04
02-SWP-17	Collector	SIP-04	EX-SIP				33.8								
	Pavement			0.90	140	390	13.7	47.5	300	0.50%	300	88	6	3.04	3.02
PIPE RUN No. 3															
03-SWP-01	Roof	DP-09	03-SWP-03	1.00	140	60	2.3	2.3	100	1.00%	100	7	3	3.85	3.78
03-SWP-02	Roof	DP-10	03-SWP-03	1.00	140	56	2.2	2.2	100	1.00%	100	7	7	3.85	3.78
03-SWP-03	Collector	03-SWP-01	SIP-04				2.2								
							2.3	4.5	100	1.00%	100	7	5	3.78	3.58

STORMWATER PIT SCHEDULE

PIT No.	TYPE	SIZE	COVER/ GRATING	CLASS
SIP-01	SURFACE INLET	600 x 600	GALV. STEEL	D
SIP-02	SURFACE INLET	600 x 600	GALV. STEEL	D
SIP-03	SURFACE INLET	600 x 600	GALV. STEEL	D
SIP-04	SURFACE INLET	600 x 600	GALV. STEEL	D
CP-01	CLEAROUT	450 x 450	GALV. STEEL	A
JP-01	JUNCTION	450 x 450	CONCRETE	A

NOTES

1. REFER TO DRAWING A - 03 FOR SITE LEVELS AND CONTOURS.
2. PROPOSED STORMWATER SYSTEM TO CONNECT TO EXISTING STORMWATER SYSTEM.
3. ALL DOWNPIPES TO BE Ø100 U.N.O.
4. ALL EAVES GUTTERS TO Min. 150 x 150 U.N.O.
5. ALL PIPEWORK LESS THAN OR EQUAL TO Ø225 IS TO BE SEWER GRADE uPVC.
6. ALL PIPEWORK GREATER THAN Ø225 IS TO BE RCP CLASS 4.
7. REFER TO DRAWING ST-02 FOR STORMWATER DETAILS.

ISSUED FOR DEVELOPMENT APPROVAL

NOT FOR CONSTRUCTION

No.	Amendment	By	Date
P1	PRELIMINARY ISSUE. NOT FOR CONSTRUCTION.	VP	03.03.2015
P2	PRELIMINARY ISSUE FOR CLIENT COMMENT. NOT FOR CONSTRUCTION.	SP	05.03.2015
DA-1	ISSUED FOR DEVELOPMENT APPROVAL. NOT FOR CONSTRUCTION.	SP	18.03.2015
DA-2	RAINWATER TANKS AMENDED. ISSUED FOR DEVELOPMENT APPROVAL. NOT FOR CONSTRUCTION.	VP	18.08.2015

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Project
KOORAGANG CAR WASH
Part Lot 1 DP 1195449 - 130 CORMORANT ROAD Cnr. EGRET STREET
KOORAGANG NSW
FOR
SOVECHLES DEVELOPMENTS Pty Ltd

Drawing Title
CAR WASH STORMWATER DRAINAGE PLAN

Approved		Designed	
Date	13th OCTOBER 2014	Drawn	AST
Scale	1:200 @ A1, 1:400 @ A3	Checked	
Project No. 14 - 056	Drawing No. ST - 01	Amdt. DA-2	