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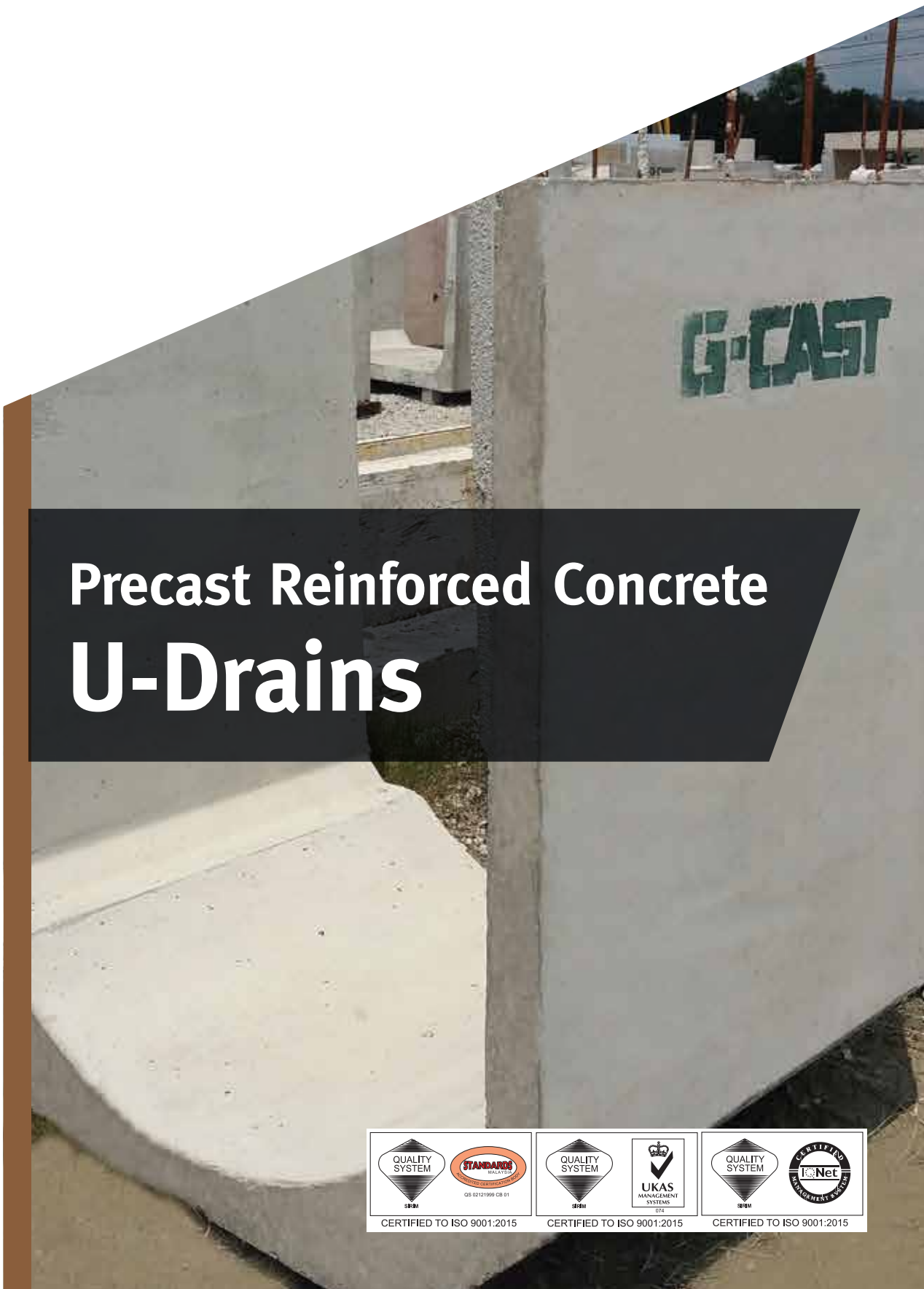
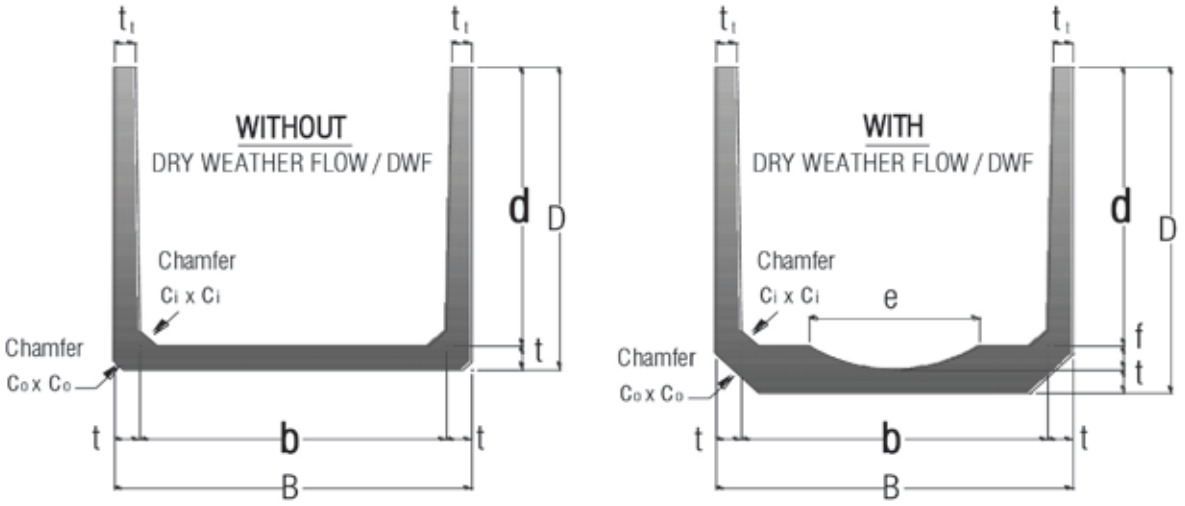


Precast Reinforced Concrete
U-Drains

CERTIFIED TO ISO 9001:2015 CERTIFIED TO ISO 9001:2015 CERTIFIED TO ISO 9001:2015

STANDARD SIZE U-DRAINS

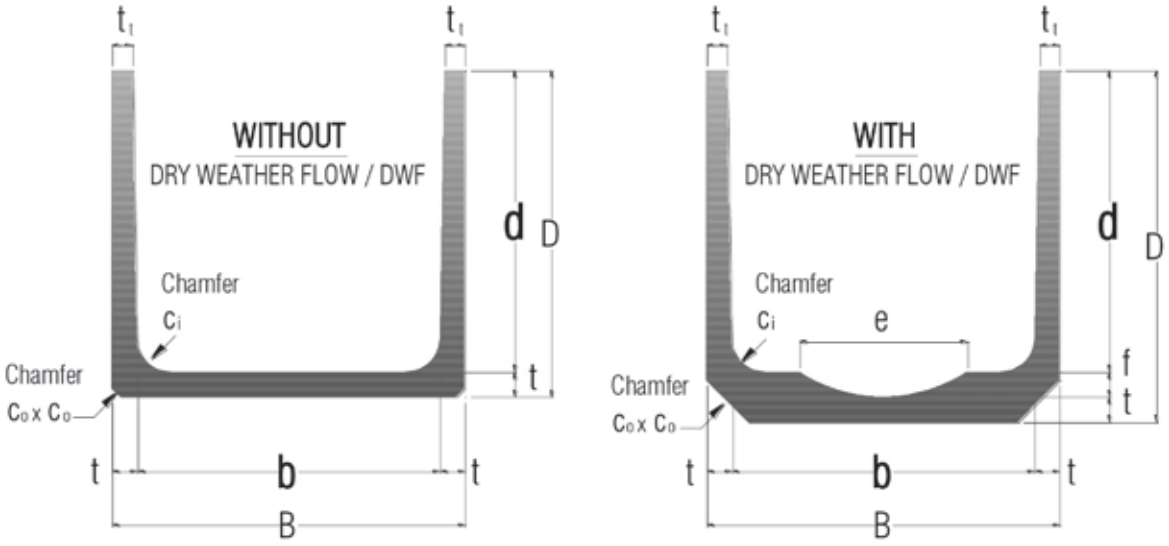
U-DRAINS STANDARD LENGTH 1.000 METRE



Nominal Size		Section Thickness		Overall Width	Without DWF				With DWF					
Internal Width	Internal Depth				Overall Depth	Chamfers		Approx. Weight	Overall Depth	Chamfers		DWF Size		Approx. Weight
b	d	t	t_t	B	D	c_i	c_o		D	c_i	c_o	e	f	
(mm)	(mm)	(mm)		(mm)	(mm)	(mm)	(mm)	(ton)	(mm)	(mm)	(mm)	(mm)	(mm)	(ton)
300	300	60	55	420	360	25	25	0.15	410	25	75	200	50	0.17
450	300	60	57	570	360	25	25	0.17	410	25	100	200	50	0.20
	450		55		510			0.21	560					0.24
600	300	65	63	730	365	50	25	0.21	430	50	125	405	65	0.25
	450		61		515			0.26	580					0.30
	600		60		665			0.30	730					0.34
750	450	65	62	880	515	50	25	0.28	580	50	125	405	65	0.34
	600		61		665			0.33	730					0.39
	750		60		815			0.37	880					0.43
900	450	75	68	1050	525	50	25	0.35	600	50	125	500	75	0.45
	600		65		675			0.40	750					0.50
	750		63		825			0.45	900					0.54
	900		60		975			0.50	1050					0.59
1200	600	80	70	1360	680	50	25	0.49	855	50	225	900	175	0.69
	750		68		830			0.54	1005					0.74
	900		65		980			0.59	1155					0.79
	1050		63		1130			0.64	1305					0.83
	1200		60		1280			0.68	1455					0.88
1500	750	100	80	1700	850	50	25	0.75	1075	50	250	1075	225	1.13
	900		76		1000			0.81	1225					1.19
	1050		72		1150			0.86	1375					1.24
	1200		68		1300			0.92	1525					1.29
	1350		64		1450			0.96	1675					1.34
	1500		60		1600			1.01	1825					1.39
1800	900	115	88	2030	1015	50	25	1.02	1240	50	250	1075	225	1.58
	1050		83		1165			1.09	1390					1.64
	1200		78		1315			1.14	1540					1.70
	1350		74		1465			1.20	1690					1.76
	1500		69		1615			1.25	1840					1.81
	1650		65		1765			1.30	1990					1.86
	1800		60		1915			1.35	2140					1.91

SUPER SIZE U-DRAINS (page 1 of 2)

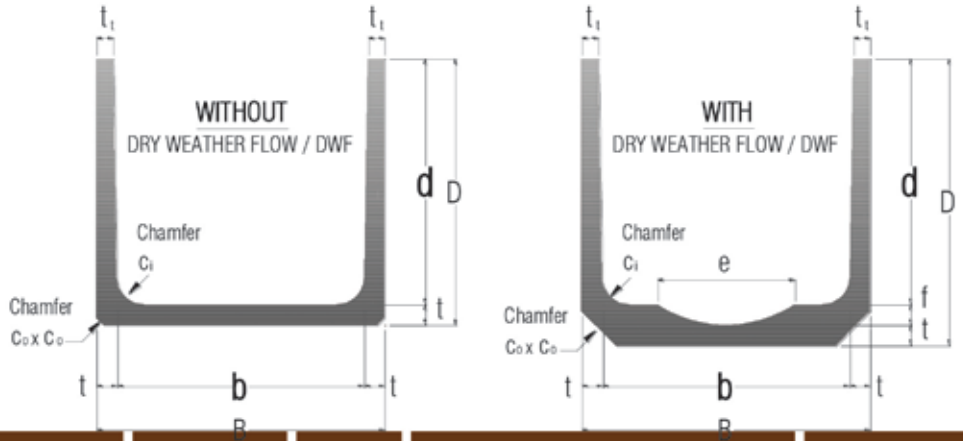
U-DRAINS STANDARD LENGTH 1.000 METRE



Nominal Size		Section Thickness		Overall Width	Without DWF				With DWF					
Internal Width	Internal Depth				Overall Depth	Chamfers		Approx. Weight	Overall Depth	Chamfers		DWF Size		Approx. Weight
b	d	t	t_t	B	D	c_i	c_o		D	c_i	c_o	e	f	
(mm)	(mm)	(mm)		(mm)	(mm)	(mm)	(mm)	(ton)	(mm)	(mm)	(mm)	(mm)	(mm)	(ton)
	1050		122		1200			1.61	1425					2.23
	1200		118		1350			1.70	1575					2.32
	1350		114		1500			1.79	1725					2.40
2100	1500	150	110	2400	1650	Radius 180	25	1.87	1875	Radius 180	350	1075	225	2.48
	1650		106		1800			1.95	2025					2.56
	1800		102		1950			2.02	2175					2.64
	1950		98		2100			2.10	2325					2.71
	2100		94		2250			2.17	2475					2.78
	1200		118		1350			1.81	1575					2.59
	1350		114		1500			1.90	1725					2.68
	1500		110		1650			1.98	1875					2.76
	1650		106		1800			2.06	2025					2.84
2400	1800	150	102	2700	1950	Radius 180	25	2.13	2175	Radius 180	350	1075	225	2.92
	1950		98		2100			2.21	2325					2.99
	2100		94		2250			2.28	2475					3.06
	2250		90		2400			2.35	2625					3.13
	2400		86		2550			2.41	2775					3.19
	1350		144		1530			2.45	1755					3.43
	1500		140		1680			2.56	1905					3.54
	1650		136		1830			2.66	2055					3.64
	1800		132		1980			2.76	2205					3.74
2700	1950	180	128	3060	2130	Radius 180	25	2.85	2355	Radius 180	350	1075	225	3.83
	2100		124		2280			2.94	2505					3.92
	2250		120		2430			3.03	2655					4.01
	2400		116		2580			3.12	2805					4.10
	2550		112		2730			3.20	2955					4.18
	2700		108		2880			3.29	3105					4.26

SUPER SIZE U-DRAINS (page 2 of 2)

U-DRAINS STANDARD LENGTH 1.000 METRE



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Internal Width	Internal Depth				Overall Depth	Chamfers		Approx. Weight	Overall Depth	Chamfers		DWF Size		Approx. Weight
b	d	t	t_t	B	D	c_i	c_o		D	c_i	c_o	e	f	
(mm)	(mm)	(mm)		(mm)	(mm)	(mm)	(mm)	(ton)	(mm)	(mm)	(mm)	(mm)	(mm)	(ton)
	1500		140		1680			2.69	1905					3.83
	1650		136		1830			2.79	2055					3.93
	1800		132		1980			2.89	2205					4.03
	1950		128		2130			2.98	2355					4.13
	2100		124		2280			3.08	2505					4.22
3000	2250	180	120	3360	2430	Radius 180	25	3.17	2655	Radius 180	350	1075	225	4.31
	2400		116		2580			3.25	2805					4.40
	2550		112		2730			3.34	2955					4.48
	2700		108		2880			3.42	3105					4.56
	2850		104		3030			3.50	3255					4.64
	3000		100		3180			3.57	3405					4.72
	1650		156		1850			3.28	2075					4.62
	1800		152		2000			3.40	2225					4.73
	1950		148		2150			3.51	2375					4.84
	2100		144		2300			3.61	2525					4.95
	2250		140		2450			3.72	2675					5.05
3300	2400	200	136	3700	2600	Radius 180	25	3.82	2825	Radius 180	350	1075	225	5.15
	2550		132		2750			3.92	2975					5.25
	2700		128		2900			4.01	3125					5.35
	2850		124		3050			4.11	3275					5.44
	3000		120		3200			4.20	3425					5.53
	3150		116		3350			4.28	3575					5.61
	3300		112		3500			4.37	3725					5.70
	1800		152		2000			3.54	2225					5.04
	1950		148		2150			3.65	2375					5.15
	2100		144		2300			3.76	2525					5.26
	2250		140		2450			3.86	2675					5.36
	2400		136		2600			3.97	2825					5.46
	2550		132		2750			4.06	2975					5.56
3600	2700	200	128	4000	2900	Radius 180	25	4.16	3125	Radius 180	350	1075	225	5.66
	2850		124		3050			4.25	3275					5.75
	3000		120		3200			4.34	3425					5.84
	3150		116		3350			4.43	3575					5.93
	3300		112		3500			4.51	3725					6.01
	3450		108		3650			4.59	3875					6.09
	3600		104		3800			4.67	4025					6.17

PRECAST RC U-DRAINS

STANDARD PRODUCT RANGE: 300 - 3600 MM

SPECIAL DESIGN: G-Cast is able to design and manufacture special design U-Drains to suit individual project requirements

G-CAST produces a comprehensive range of precast reinforced concrete U-Drains to meet the market demand and requirements.

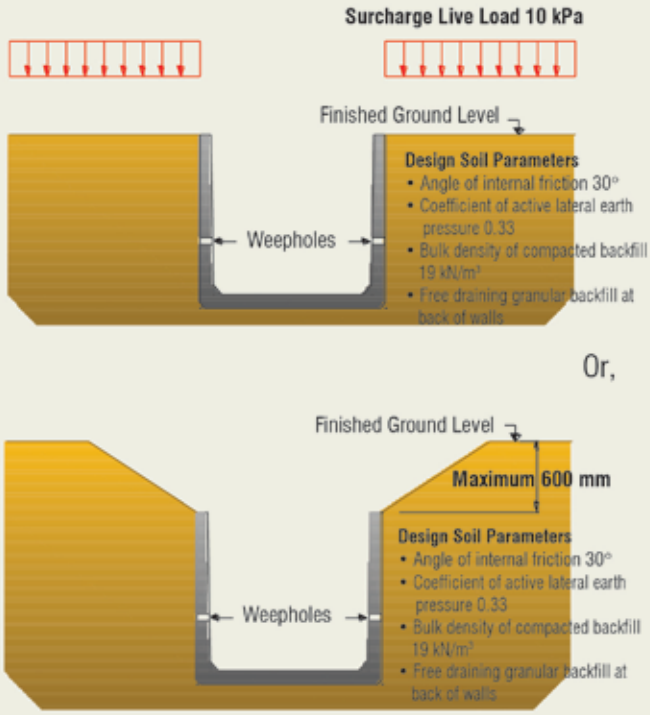

Figure 1

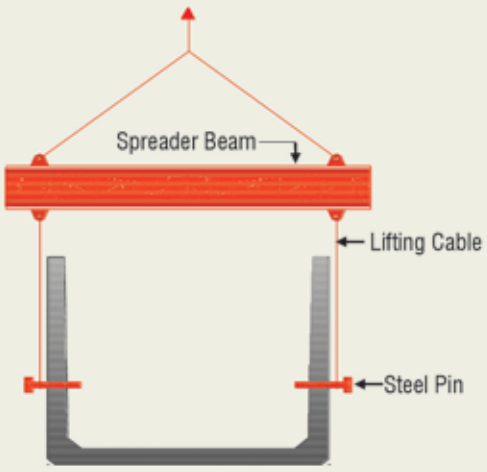

Figure 2

SPECIFICATIONS

Concrete Characteristic Strength at 28-days
30 N/mm² – 40 N/mm²

Concrete Cover
- Standard size u-drains width 300-1800 mm : 25mm
- Super-size u-drains width 2100-3600 mm : 30mm

Design Loading Criteria
- G-Cast u-drains are designed for the load condition shown in Figure 1.
- Hydrostatic pressure is not catered for in the design since weepholes are provided. The butt jointed units of u-drains also prevent buildup of hydrostatic pressure.

HANDLING

Spreader beam, steel pins and cables to be used to lift u-drain from the outside face as shown in Figure 2. Improper lifting will cause cracking of the u-drain walls.

STORAGE AT SITE

U-drains are to be stacked at site on level and stable ground to prevent cracking of base slab.

LAYING

U-drains must be laid on level and compacted bedding to ensure uniform support is provided that eliminates undesirable loads to the u-drain units.

JOINTING

G-Cast u-drains of standard unit length 1.000 meter come with butt end joints and whenever necessary, cement-sand mortar is used to close up gaps.

BACKFILLING

Selected granular material with free draining property is to be used as backfill material behind back of u-drain walls. Backfill material to be compacted in thin layers using light compactor to avoid damage to u-drain walls.

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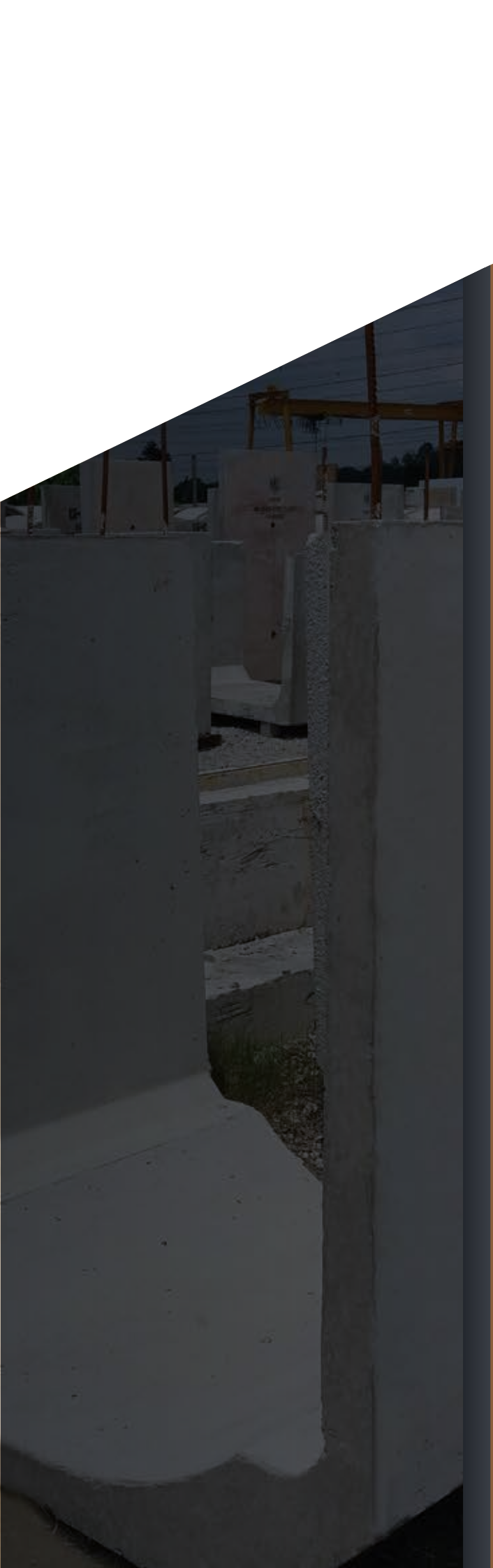

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- Lot 1561, Kampong Stesen, Sungai Choh, 48000 Rawang, Selangor Darul Ehsan, Malaysia.
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SIRIM
ECO-LABEL

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