

Drainage Proposal

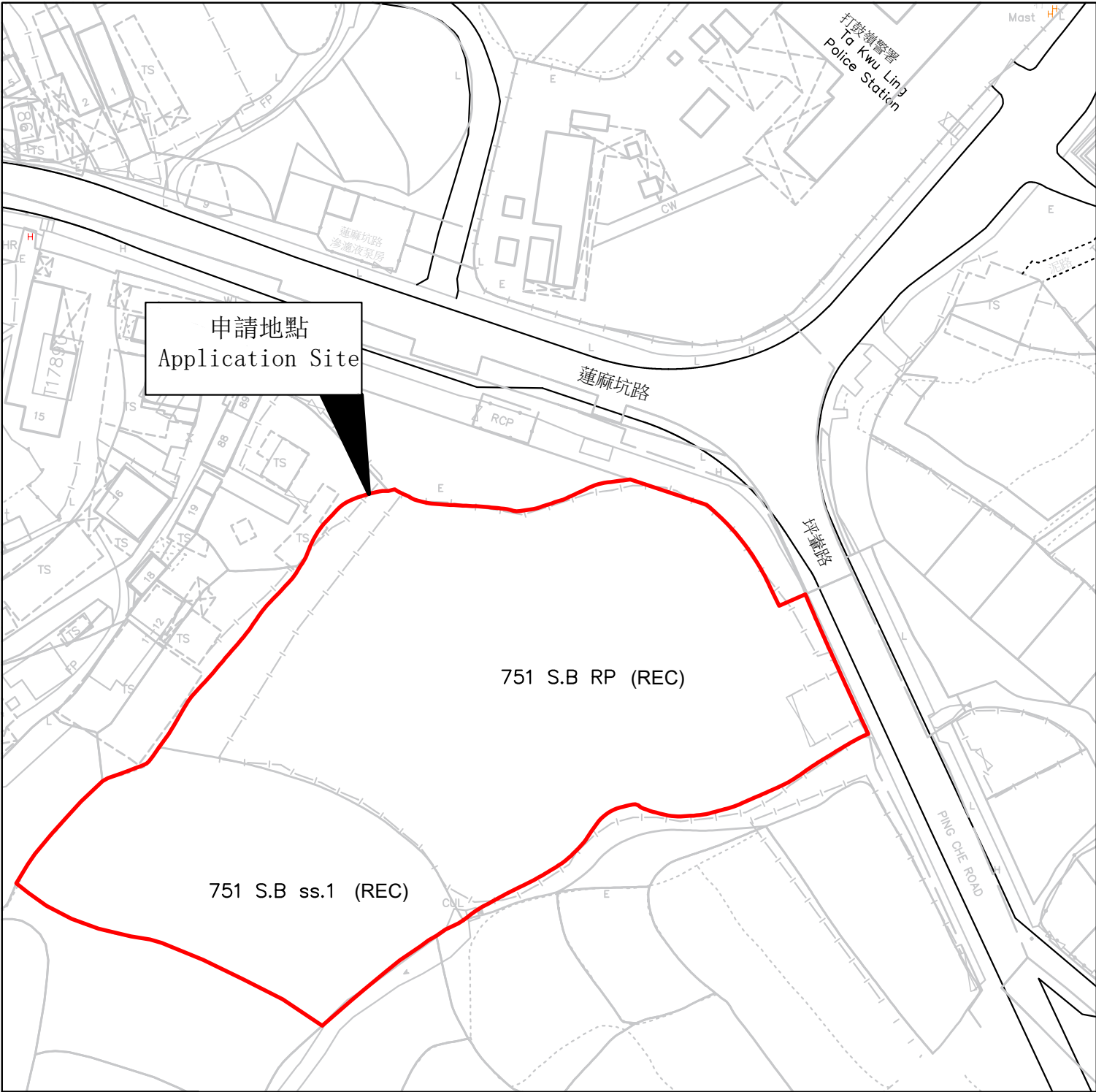
Project : Proposed Temporary Logistic Centre and Warehouse
with Ancillary Open Storage for Machinery,
Solar Panels and Facilities for a Period of 3 Years

1. Site particulars

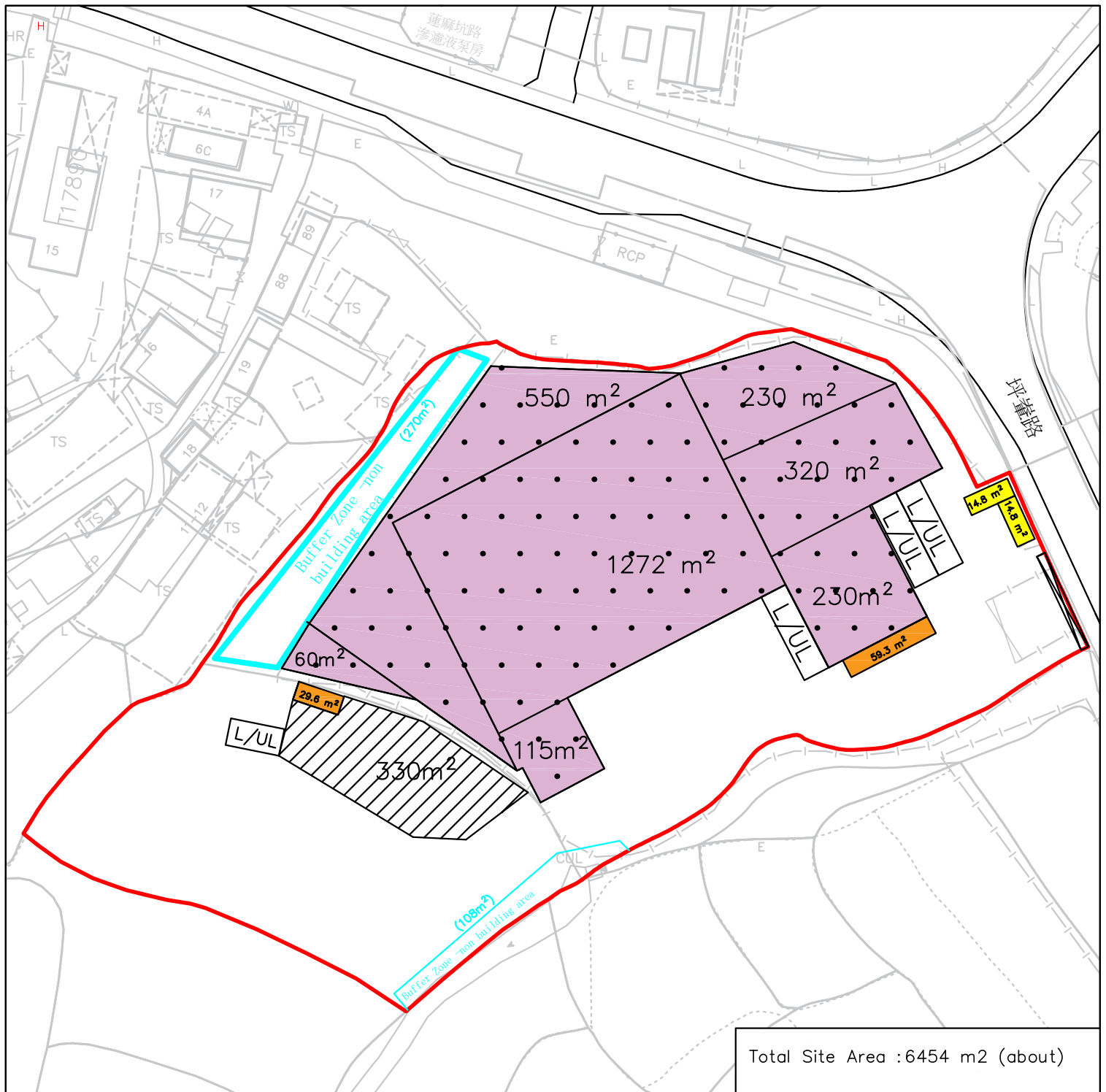
1.1 The application site is located at Lot.751 S.B RP, 751 S.B ss.1 in D.D. 82 . The site area is approximately 6454 m². The site location is shown in Figure 1.

1.2 The existing site is fully paved with approximate levels of +7.0 mPD. No significant site formation works are anticipated for the proposed development.

1.3 The site can access from Ping Che Road. The surrounding area is predominantly rural, comprising temporary structures Village House and government facilities.



Legend Site Boundary			
Scale		Location Plan	
1:1000		Proposed Warehouse at Lot,751 S.B RP, 751 S.B ss.1 in D.D.82 Ta Kwu Ling	Plan 1



Legend

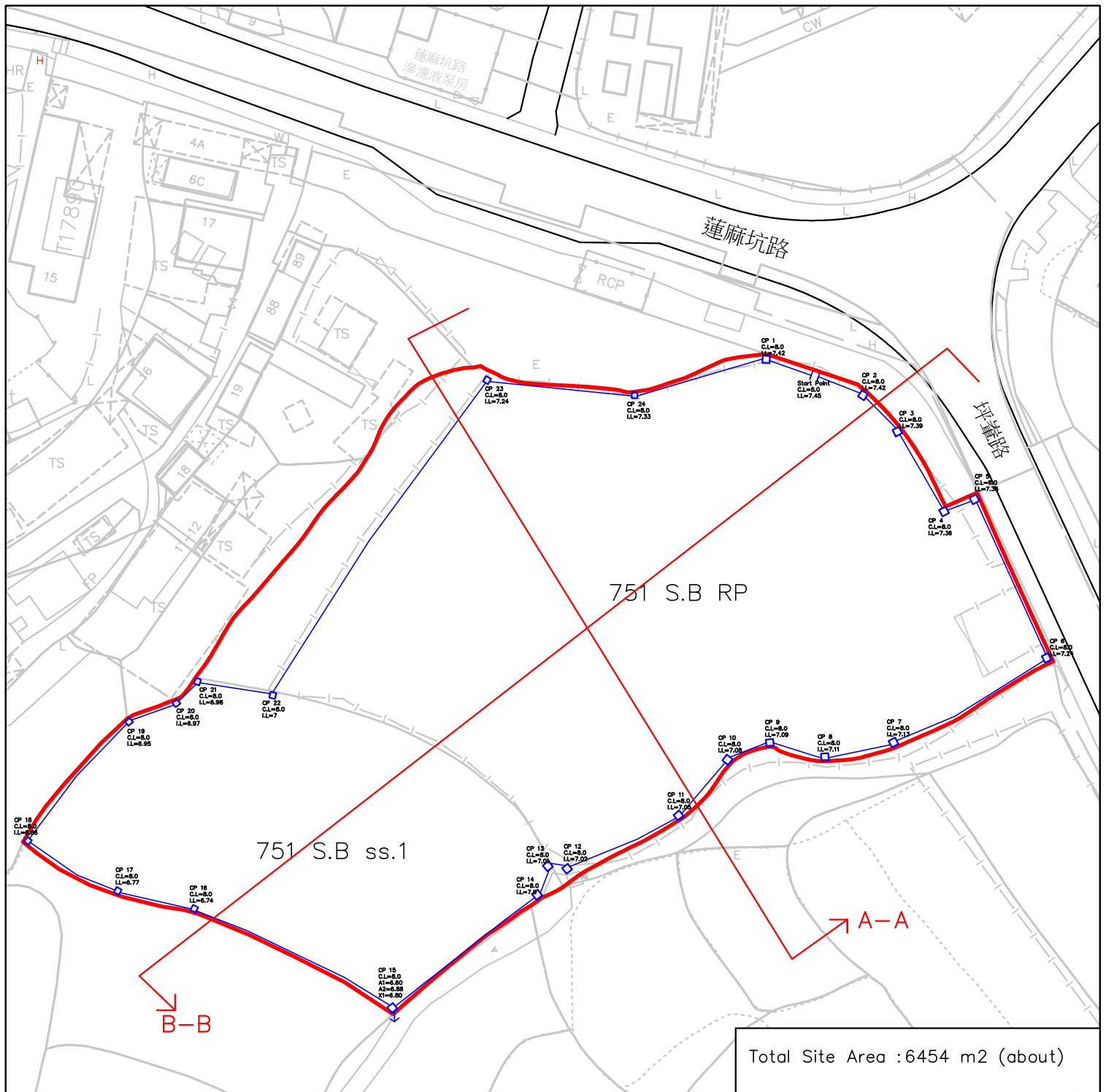
- Office (88.90 m²)
- Toilet (29.6 m²)
- Enclosed Warehouse (2,777 m² ≈ 30000 sf)
- Site Boundary
- Buffer Zone Boundary
- Ingress/Egress (11 m wide)
- L/UL 16 tons trucks Loading /Unloading space 3.5m(w) x 12 m(L)
- L/UL Light Goods Vehicle Loading /Unloading space 3.5m(w) x 7 m(L)
- Open Storage Area (about 330 m²)
- Proposed Solar Panel Area

Scale

Not to Scale

Layout Plan

Lot.751 S.B RP,.751 S.B ss.1
in D.D.82 Ta Kwu Ling



Legend

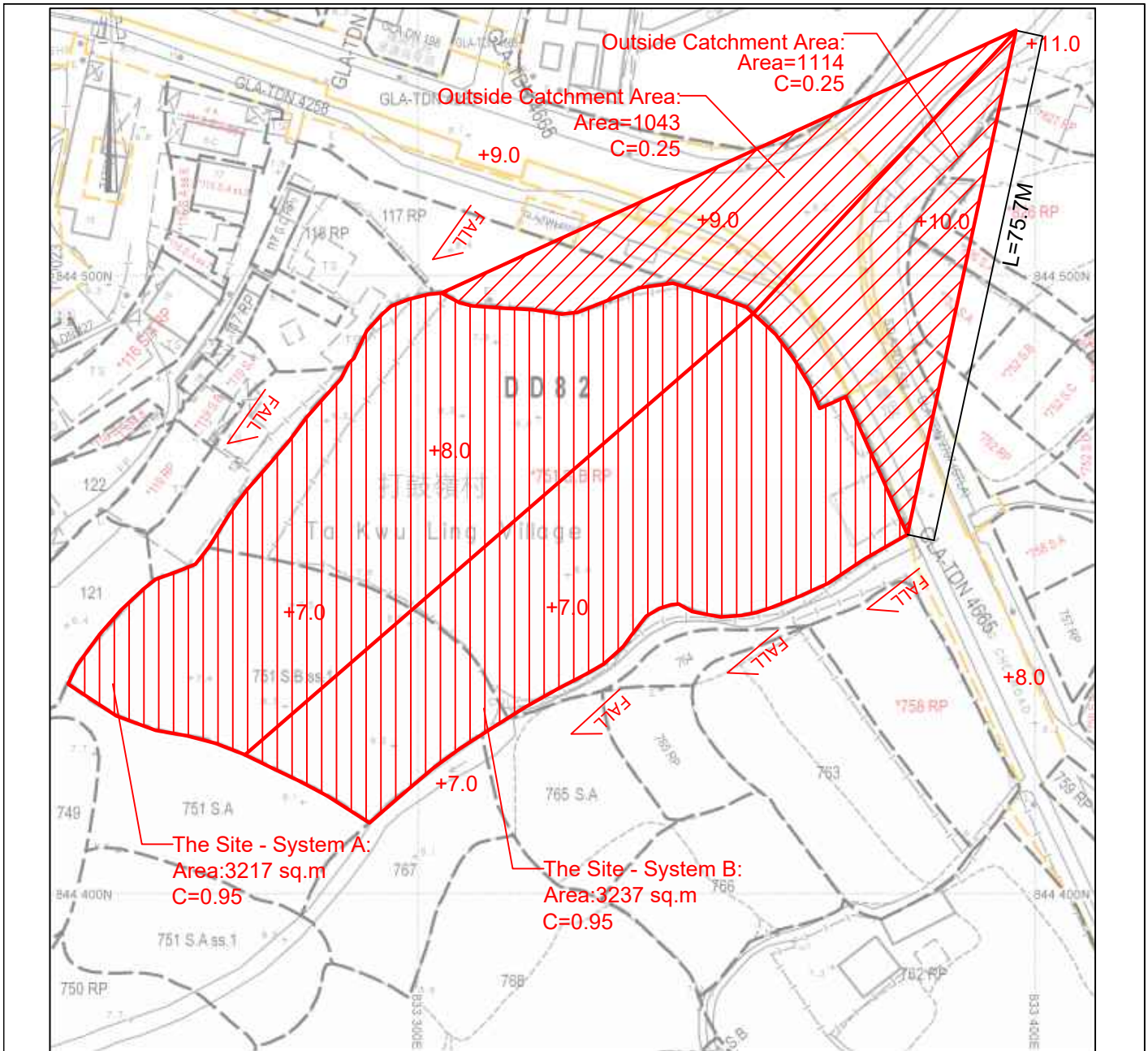
- Proposed Catch Pit
- Proposed U-Channel
- Proposed Concrete Pipe
- Site Boundary

Scale

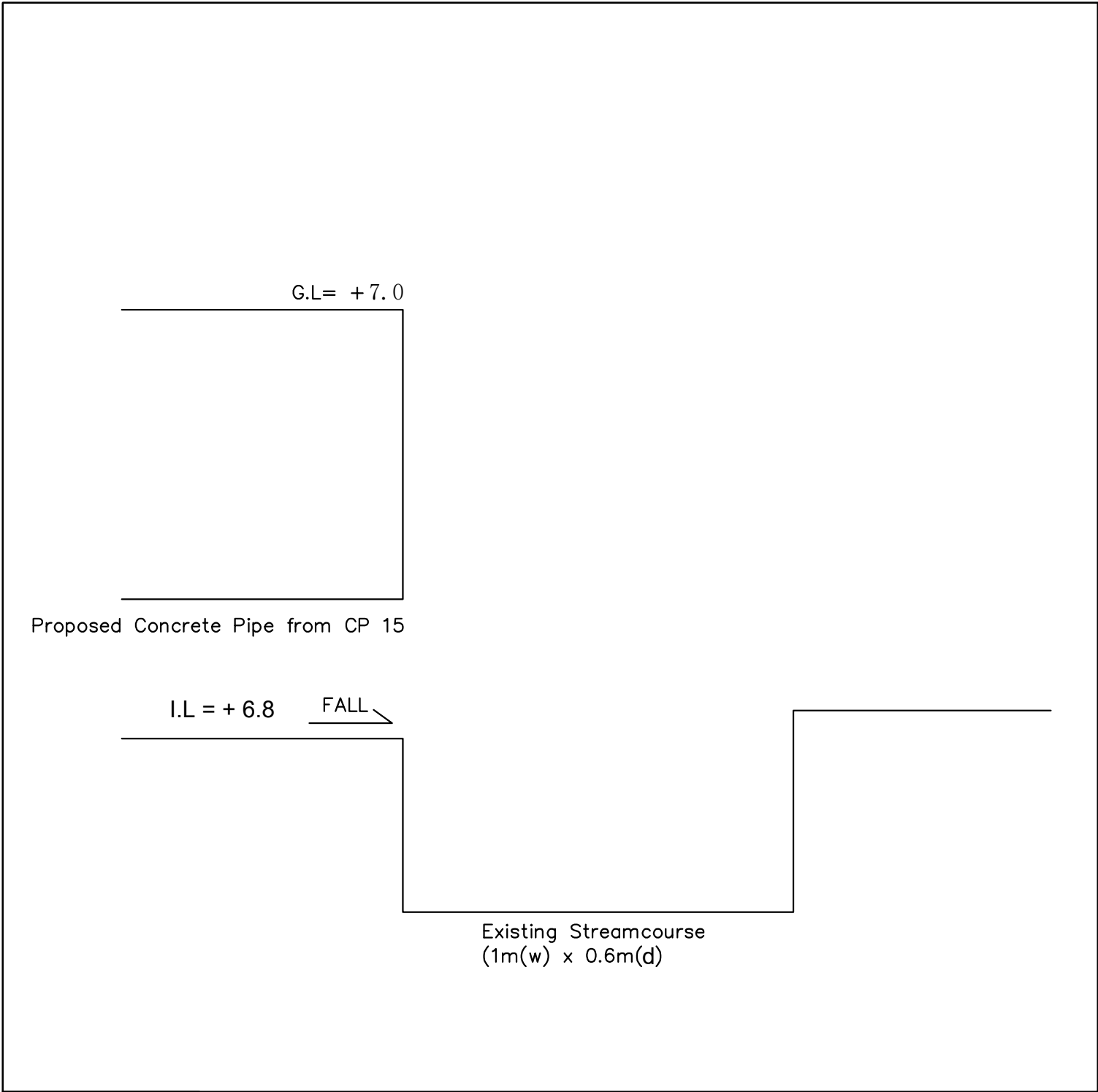
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Drainage Layout Plan

Proposed Warehouse at Lot.751 S.B RP,
751 S.B ss.1 in D.D.82 Ta Kwu Ling



Man Shing Hong (Hopewell) Company Limited	Drainage Proposal - CATCHMENT AREA PLAN	Annex: 2
	Drawn by: Aaden Xie	Date: 17-9-2026
PROJECT: Proposed Temporary Logistic Centre and Warehouse with Ancillary Open Storage for Machinery, Solar Panels and Facilities for a Period of 3 Years Application No.: A/NE-MKT/70	Check by: December Huang	Scale: -----



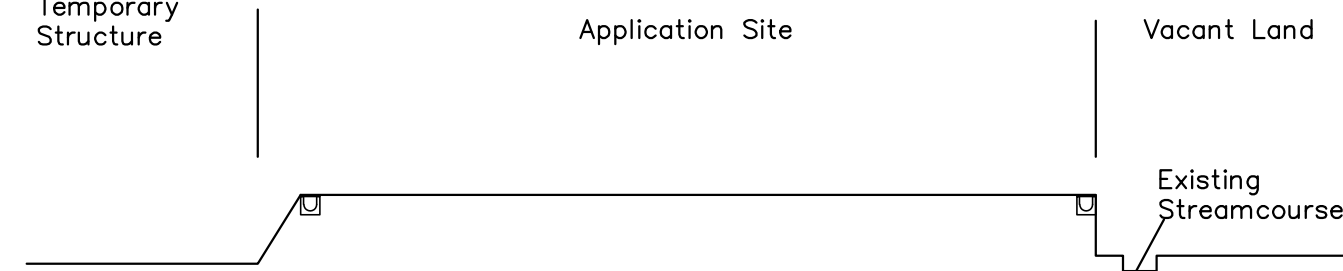
Legend		
Scale	Connection Detail (CP 15 to Existing Streamcourse)	
Not to Scale		

Temporary
Structure

Application Site

Vacant Land

Existing
Streamcourse



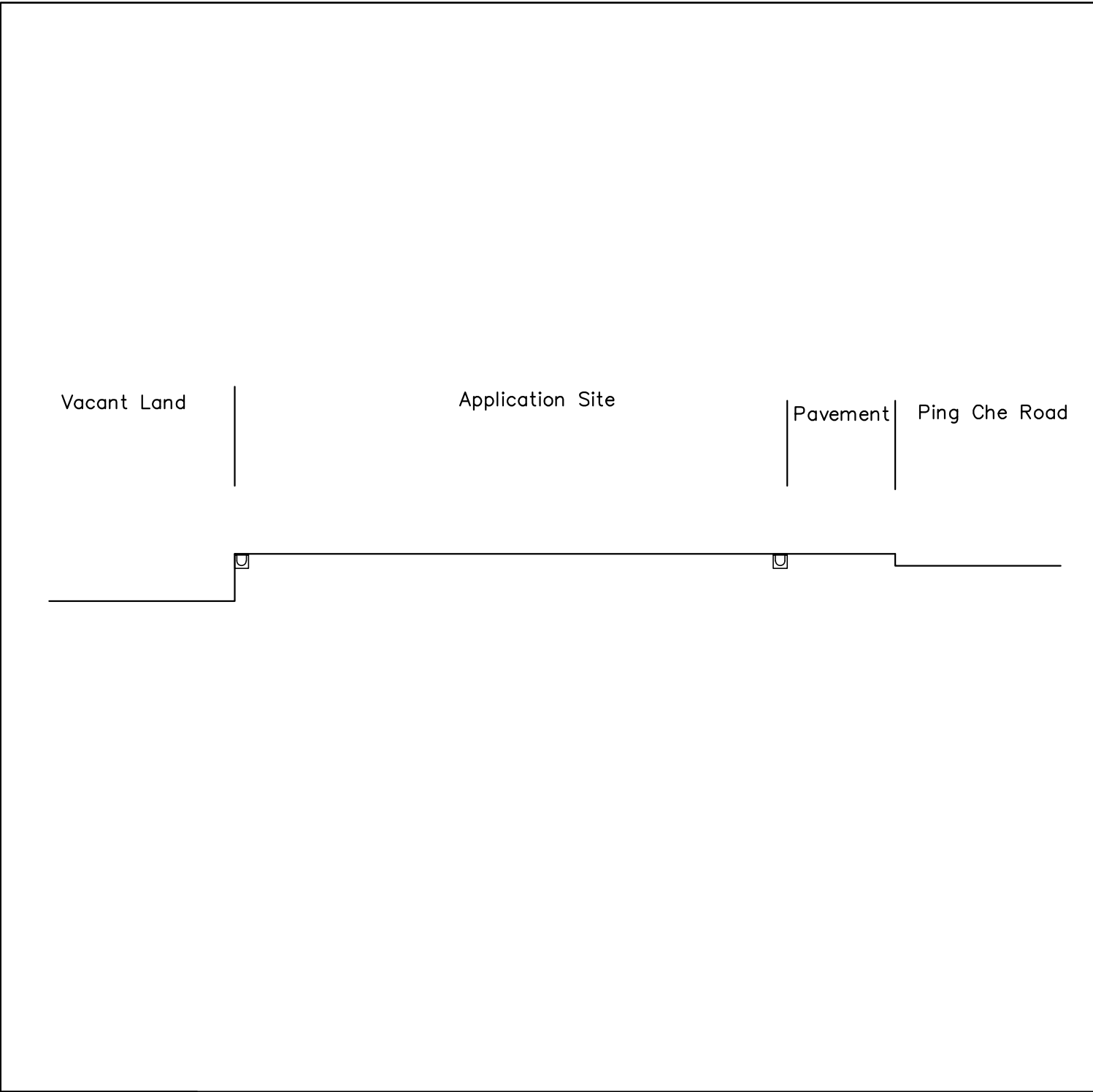
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Scale

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Section Plan (A-A)

(CP 15 to Existing Streamcourse)



Legend		
Scale Not to Scale	Section Plan (B-B) (CP 15 to Existing Streamcourse)	

Check 450U by Manning Equation — System A (No Pipe)

DD82 — independent System A / Outfall X1

No-pipe option: U-channel capacity check.

$V = (1/n) \times R^{(2/3)} \times S^{(1/2)}$; $R = A/P$

where:

H	=	450 mm	nominal U-channel size
n	=	0.013	— Manning roughness
S	=	0.005000	— channel gradient
Freeboard	=	0.0 mm	allowance above water
y	=	0.450 m	check water depth
A	=	0.180772 m²	wetted flow area
P	=	1.156858 m	wetted perimeter
R	=	0.156261 m	hydraulic radius
V	=	1.578 m/s	velocity at check depth
Maximum permitted velocity	=	4.000 m/s	entered criterion
F	=	1.000	— channel capacity factor

$Q_{allow} = F \times V \times A$
 $= 1.000 \times 1.578005 \times 0.180772 \text{ m}^3/\text{s}$

Allowable channel capacity	=	0.285258 m³/s
Allowable channel capacity	=	17,115.5 L/min
System A design runoff	=	14,734.5 L/min
Capacity utilization	=	86.1% —

Provide 450U (1:200) is OK.

U-channel conveyance only; receiving-drain / outlet capacity is not verified here.

Rounded U-section: width = total depth H; semicircular base radius = H/2.
For $y \geq H/2$: $A = \pi H^2/8 + H(y - H/2)$; $P = \pi H/2 + 2(y - H/2)$.
Water depth $y = H - \text{freeboard}$. Confirm the actual section and design water depth.
Check outlet levels, tailwater, local losses and receiving-drain capacity before final issue.
A and B are separate here. If they join downstream, check the shared outlet separately.
Use with System A Runoff Report. Circular-pipe checks are excluded from this option.

Check 450U by Manning Equation — System B (No Pipe)

DD82 — independent System B / Outfall X2

No-pipe option: U-channel capacity check.

$V = (1/n) \times R^{(2/3)} \times S^{(1/2)}$; $R = A/P$

where:

H	=	450 mm	nominal U-channel size
n	=	0.013	Manning roughness
S	=	0.005000	channel gradient
Freeboard	=	0.0 mm	allowance above water
y	=	0.450 m	check water depth
A	=	0.180772 m²	wetted flow area
P	=	1.156858 m	wetted perimeter
R	=	0.156261 m	hydraulic radius
V	=	1.578 m/s	velocity at check depth
Maximum permitted velocity	=	4.000 m/s	entered criterion
F	=	1.000	channel capacity factor

$Q_{allow} = F \times V \times A$
 $= 1.000 \times 1.578005 \times 0.180772 \text{ m³/s}$

Allowable channel capacity	=	0.285258 m³/s
Allowable channel capacity	=	17,115.5 L/min

System B design runoff	=	14,904.0 L/min
Capacity utilization	=	87.1% —

Provide 450U (1:200) is OK.

U-channel conveyance only; receiving-drain / outlet capacity is not verified here.

Rounded U-section: width = total depth H; semicircular base radius = H/2.
For $y \geq H/2$: $A = \pi H^2/8 + H(y - H/2)$; $P = \pi H/2 + 2(y - H/2)$.
Water depth $y = H - \text{freeboard}$. Confirm the actual section and design water depth.
Check outlet levels, tailwater, local losses and receiving-drain capacity before final issue.
A and B are separate here. If they join downstream, check the shared outlet separately.
Use with System B Runoff Report. Circular-pipe checks are excluded from this option.