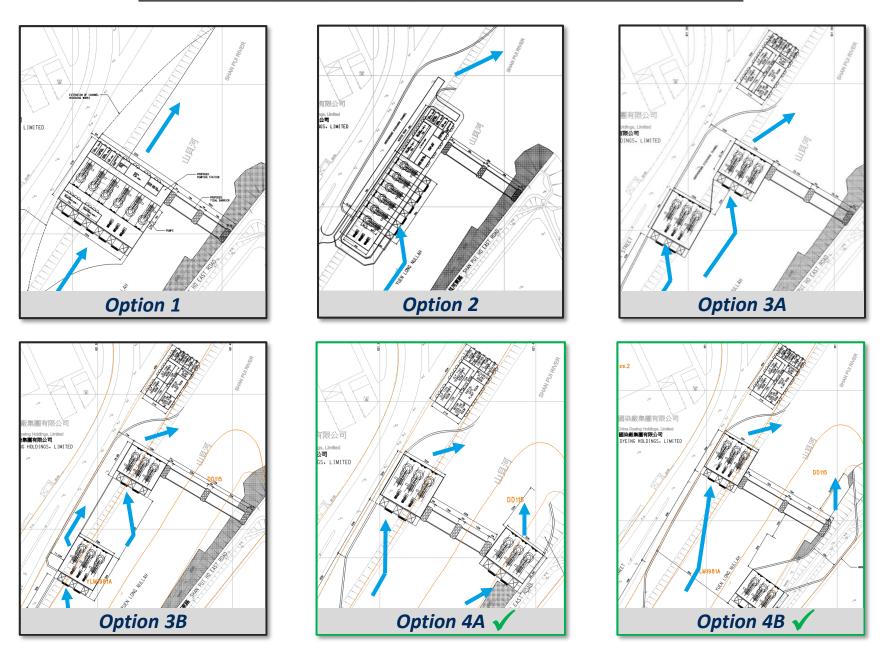
## **Preliminary Layout Options considered for YLBS**



## **Design Criteria: Benefits of Barrage Layout Option 4A/4B**

<b>Design</b> (	Criteria
-----------------	----------

## Description

Hydraulics & Flood Resilience

Retains sufficient width in YLN for gravity flow without pumps

- Optimal pump intake conditions (reduced flow rotation)
- Minimal increase in downstream water levels

Discharge Performance

- Even distribution of discharged flow among both banks
- Suited for submerged outlet for reduced surface turbulence
- Optimal layout for implementation of energy dissipators

Erosion & Sedimentation

- Distributed energy concentration among both banks
- Discharge outlets can be readily enhanced for erosion control
- Sedimentation confined to barrage forebay for better O&M

Construction Aspects

- Improved accessibility and safety for pumping station
- Increased flexibility for construction staging
- Enables phased commissioning & flood protection for YL town

Ecological & Visual Aspects

- Smaller structures for more effective visual mitigation
- Reduced height and impact to avifauna & low-flying species
- Reserves a greater area for potential ecological compensations