

CMWaterparks River Channel Attraction

4-ANGLE PERSPECTIVE & CHANNEL FLOW ANALYSIS

Doc ID: CMW-LR-2026-SPEC
Category: Lazy River System
Status: Technical Concept



Perspective View Breakdown

Frame / Quadrant	Camera Orientation	Key Structural Highlights	Safety Railing Spec
Top-Left (Quadrant I)	Upstream Approach View	Outer curve entry, perimeter pathway & deck seating	316 Stainless Steel Dual Rail
Top-Right (Quadrant II)	Mid-Stream Curve Elevation	Inner green bank slope, water line overflow gutter	Glass-Fiber Reinforced Posts
Bottom-Left (Quadrant III)	Wide Corner Sweep View	Curved retaining wall, non-slip rubberized walkway	Continuous Guardrail Enclosure
Bottom-Right (Quadrant IV)	Downstream Exit Channel	Propulsion jet section, tube return area	Flush-Mount Floor Anchors

Hydraulic & Structural Engineering

FLOW MECHANICS, CHANNEL LINING & SAFETY COMPLIANCE

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Section: Civil & Mechanical

Channel View Angle Specifications

1. UPSTREAM APPROACH

- Flow Speed:** 0.8 m/s to 1.2 m/s steady current.
- Deck Access:** Anti-slip wet deck surface along outer radius.
- Safety Margin:** 1,100 mm height stainless steel perimeter barrier.

2. CURVED MEANDER ZONE

- Curvature Radius:** 6.5 m inner bank radius.
- Wall Finish:** High-durability waterproof blue epoxy coating.
- Edge Detail:** Red contrast safety line along channel lip.

3. OUTER PERIMETER PATH

- Walkway Surface:** Poured-in-place EPDM rubberized granules.
- Drainage:** Perimeter slot drain for splash containment.
- Landscaping:** Tropical palm accents and shade canopy integration.

4. PROPULSION CHANNEL

- Jet Pumping System:** Submerged directional flow nozzles.
- Water Depth:** Standardized 1.0 m operating depth.
- Capacity:** Up to 350 riders/hour float tube capacity.

Mechanical & Civil Specifications

Parameter	Engineering Requirement	Operational Notes
Channel Dimensions	3.2 m Width × 1.0 m Depth	Constant cross-sectional flow area
Pump System	High-volume low-head axial flow pumps	Redundant dual-pump configuration
Filtration Cycle	Full turnover every 2.0 hours	Automated chemical dosing & UV sanitization
Safety Standards	EN 1069 / ASTM F2376 Compliant	Zero-entrapment suction grate design

Operational Notice: Lazy river flow velocity and water quality systems are monitored continuously via automated SCADA control units. Ensure routine maintenance of stainless steel handrails and channel coating integrity every 12 months.