MULTIPLAY STATIONS JUNGLE GYM

Commercial Outdoor Play System & Engineering Specifications

DWG NO: JGM-SPEC-2026
Standards: EN 1176-1/3 & ASTM F1487

1. SYSTEM SCOPE & ENGINEERING CONCEPT

This document sets forth structural engineering criteria, component materials, climb net assemblies, platform loading parameters, and safety compliance standards for heavy-duty commercial Multiplay Jungle Gym stations.

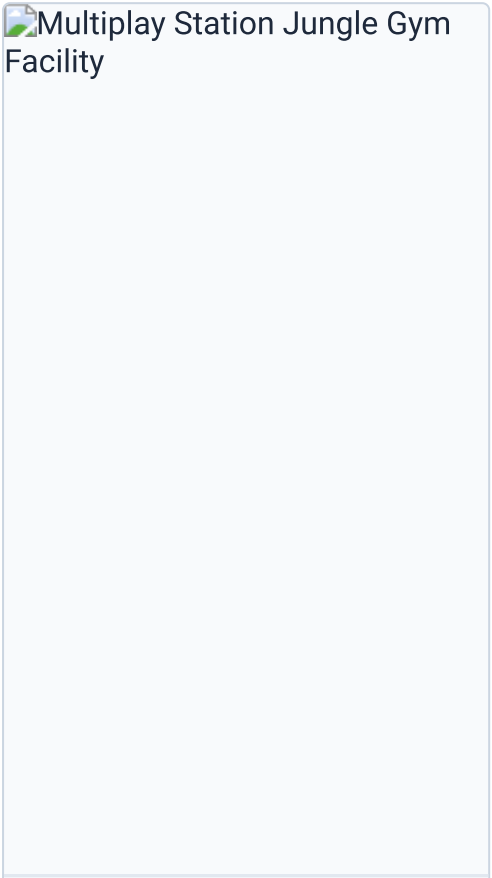


Figure 1: Multiplay Jungle Gym featuring Rope Nets, Monkey Bars, Slides & Towers.

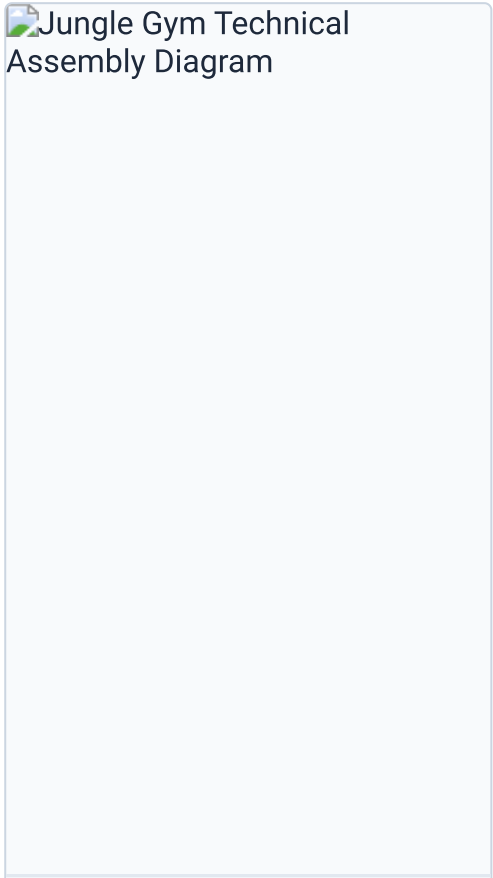


Figure 2: Technical Drawing (DWG JGM-SPEC-2026) – Structural Post Anchoring & Net Connector Detail.

2. TECHNICAL COMPONENT SPECIFICATIONS

Module / Element	Material & Dimensional Specifications	Structural & Safety Ratings
Main Support Posts	Ø 114mm (4.5") hot-dipped galvanized steel posts (wall thickness 3.0mm) or structural Robinia timber.	Thermosetting anti-UV polyester powder coating; tested for dynamic wind loads > 120 km/h.
Jungle Climbing Nets	16mm 6-strand steel-core polypropylene ropes with high-impact aluminum knot connectors.	Tensile strength > 25 kN per strand; anti-vandalism sheath resistant to cutting and UV decay.
Monkey Bars & Ladders	Ø 38mm stainless steel (Grade 304/316) overhead rungs with anti-slip textured grip.	Clear opening space prevents head/neck entrapment per EN 1176 Clause 4.2.7.
Platforms & Decks	2.5mm punched steel sheet dipped in 3mm anti-slip Plastisol PVC coating with self-draining mesh.	Uniform live load capacity: 4.5 kN/m²; structural deflection < 1/200th of span.
Slides & Tunnels	Rotomolded LLDPE food-grade resin (wall thickness 6mm–8mm) with UV-8 color stabilization.	Impact resistance > 15 kJ/m²; static load rating > 500 kg on chute landing bed.

3. SAFETY COMPLIANCE & INSTALLATION STANDARDS

SAFETY CLEARANCES & FALL ZONES

- **Fall Zone Radius:** Minimum 2.0m continuous clearance perimeter surrounding dynamic climb areas.
- **Critical Fall Height (CFH):** Rated for up to 2.4m max fall height; requires certified EPDM rubber or bark mulch.
- **Hardware Fasteners:** Stainless steel anti-theft Torx security bolts with domed protective caps.

FOUNDATIONS & MAINTENANCE CYCLE

- **Concrete Footings:** In-ground C25/30 concrete foundations (500mm × 500mm × 600mm depth).
- **Inspection Protocol:** Weekly visual checks on rope tension, bolt torque audits every 90 days.
- **Corrosion Resistance:** Salt-spray tested for 1,000+ hours without surface corrosion degradation.