🌐 OFFICIAL SAPS® MANUAL ADDENDUM V1.1: MANDATORY EXTENDED CLEARANCE AND TRAJECTORY CONTROL® PROTOCOL

Effective Date: November 18, 2025

This Addendum is an integral supplement to the core **Safety Anchor Post System (SAPS®) Manual**. It provides crystal-clear geometric and procedural guidance for anchor installations where the required inbound clearance extends beyond the standard 1′–00″ minimum. The foundational engineering commitment is to utilize **Trajectory Control® (TC)**principles to reduce the **Splat Factor** (fall force outcome) to a negligible, non-injurious force.

1. 📝 Mandatory Compliance and Accountability Protocol

Accountability for the **Patented SAPS® System** is enforced through procedural and documentation mandates.

A. JHA Protocol and Sign-Off Requirements

- **JHA Requirement:** A **Job Hazard Analysis (JHA)** must be formally drafted, thoroughly reviewed, and **signed by all individuals** performing tasks including **installation, removal, working tied off, or jumping the system to a different elevation.**
- **Timing:** JHA review and sign-off must occur **prior to commencement of operation** and **prior to any shift change**.
- **Compliance Integration:** The JHA must adhere to this Addendum and incorporate all applicable **Provincial, local, and company-specific safety policies.**

B. Foundational Performance and Force Reduction

- **Non-Negotiable MFA Limit (General Note #9):** The system **MUST NOT** allow the Fall Arrest Force (MFA) to exceed the **1,000 lb maximum**.
- **Regulatory Compliance:** This performance is engineered to be well below the **OSHA 1,800 lb limit** (29 CFR 1926.502(d)(16)).

2. 🤝 Contractor & Competent Person Site-Specific Responsibility

The ultimate responsibility for ensuring the system's safety envelope is achieved rests with the Contractor and the designated Competent Person. They must integrate the SRL manufacturer's specific guidelines with the SAPS®/TC® requirements based on the project environment.

- **Manufacturer Guideline Mandate:** The **Contractor** and the **Competent Person** are jointly responsible for obtaining and **strictly following the guidelines, warnings, and instructions** provided by the **Type 2 SRL Manufacturer**.
- **SRL Use and General Note #5:** When using any Self-Retracting Lifeline (SRL) in this extended clearance application, the contractor **MUST comply with the Vertical Clearance Mandate (General Note #5)**. This requires calculating and ensuring adequate vertical clearance below the worker's tie-off point.
- **Clarity on Clearance Calculation:** The use of the SRL manufacturer's labeled clearance data is acceptable for determining lanyard elongation and deflection factors, **but the final calculation must still account for the safety margin and potential worker height/ harness shift as required by General Note #5.**
- **Site-Specific Accommodation:** This includes determining the precise **distance to safely accommodate the end-user** based on the specific work environment (e.g., swing path clearance, obstacles) to fully **fulfill the event of the safety envelope as per the project.**
- **Consequence of Non-Compliance: Failure to confirm adequate vertical clearance nullifies the protective guarantee** and voids the sub-1,000 lb MFA calculation.

3. 📐 Extended Clearance Geometry and Structural Requirements

The system's low-force performance is the direct result of adhering to these strict geometric and structural specifications.

Requirement	Principle & Rationale
Protective Geometry (Example)	Anchor post must be installed a minimum of **8′–00″ horizontally inbound** from any leading edge.
	Rationale (Trajectory Control®): This **Geometric Constraint** limits the **Arc of Swing** and free fall, ensuring the worker is arrested vertically and remains in a **vertical position** relative to the platform.
Mandatory Engineering Review	Any clearance >1′–00″ **MUST** be determined by a **SAPS Competent Person** and confirmed via a formal **Engineering Review**.
D-ring Specification	D-ring must be **forged rated 5,000 lbs** and must rotate **360˚**.
	Rationale: Provides the mandatory 5:1 Safety Factor. **360˚ rotation** prevents side loading, maintaining full capacity.
D-ring Height	D-ring must be positioned **10″ from the finish floor**.
	Rationale: Standardizes the vertical attachment point for accurate **Total Arrest Distance (TAD)**calculation.
Substrate Requirement	Concrete substrate must have a minimum compressive strength of **2,500 PSI**.
	Rationale: Ensures the base can provide the necessary **reaction force** to the anchor, preventing structural failure.
Component Adherence	Use of the specifically designated **Type 2 SRL** is mandatory.
	Rationale: The Type 2 SRL is a **critical variable** in the dynamic calculation. **Substitution voids the protective guarantee.**
Installation Method	**NO WET SETTING** (Cast-in-Place). TSMDA minimum clearance is 12″. Post-Installed Anchors must follow strict Manufacturer Guidelines.

	Rationale: Failure to follow structural specifications **VOIDS** the protective outcome.