Technical Bulletin: Compatibility of Non-Reliance Products with Skyline™ Horizontal Lifeline Systems

Effective Date: June 1, 2025

Overview

This bulletin outlines the limitations and conditions for using **non-SureWerx or non-Reliance self-retracting devices (SRDs)** and **horizontal lifeline (HLL) systems** in conjunction with **Reliance Skyline™ HLL stanchions**. While compatibility is possible, any such use requires evaluation and approval by a **Qualified Person** and may necessitate **adjustments to capacity, clearance, and input calculations**.

Use of Other Manufacturers' SRDs with Skyline™ HLL Systems

Regulatory Reference:

- **OSHA 1910.66 / Subpart M / 1926.502(d)(8)**:
  "Horizontal lifelines shall be designed, installed, and used under the supervision of a qualified person as part of a complete fall arrest system, which maintains a safety factor of at least two."
- **OSHA 1926.32(m)**:
  "Qualified means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated their ability to resolve problems related to the subject matter."

Key Requirements:

- **Type 2 SRDs** from other manufacturers must be evaluated for **maximum arresting force (MAF)** and **arresting distance** based on the **manufacturer's published specifications**.
- When using SRDs with MAF values greater than Reliance's standard 900 lb./user input, you must **adjust the Skyline HLL Calculator** to reflect equivalent system loads.

Input Adjustments (User Capacity Derating):

Use the following method to convert higher-MAF SRDs into appropriate inputs for the **Reliance HLL Calculator:**

SRD MAF	Required Input in Reliance HLL Calculator
1 user @ 1,350 lbs.	Enter as **2 users @ 900 lbs.**
2 users @ 1,350 lbs.	Enter as **3 users @ 900 lbs.**

Refer to the table below for additional examples:

Reliance System Capacity	900 lb. MAF	1,350 lb. MAF	1,500 lb. MAF	1,800 lb. MAF
2 Users (1,800 lbs. total)	2 Users	Derate to 1 User	Derate to 1 User	Derate to 1 User
3 Users (2,700 lbs. total)	3 Users	Derate to 2 Users	Derate to 1 User	Derate to 1 User
4 Users (3,600 lbs. total)	4 Users	Derate to 2 Users	Derate to 2 Users	Derate to 2 Users

Clearance Adjustments:

If the selected SRD has a greater **arrest distance** or **retracted SRL length** than a Reliance Micro-Loc or Skyloc II, additional clearance must be added to the **MRC (Minimum Required Clearance)** in the HLL Calculator.

SRD Condition	Adjustment to Minimum Required Clearance (MRC)
Baseline Device (e.g., Micro-Loc / Skyloc II) Arrest distance ≤ 24” **and** Retracted SRL Length ≤ 12”	Use HLL Calculator default Minimum Required Clearance as provided.
Additional Arrest Distance over 24"	Add the excess distance (e.g., 42" arrest (18 in. over baseline) = add 1.5 ft)
Retracted SRL Length over 12"	Add the excess length (e.g., 18" extension arrest (6 in. over baseline) = add 0.5 ft)
Combined Additional Distance (Arrest + Extension)	Add the total of both differences (e.g., 42" arrest + 18" extension = 2 ft total → **add 2 ft.**)

Sample Reliance HLL Calculator output sheets are provided at the end of this document for reference.

Qualified Person Responsibilities:

- Ensure compatibility between the attached arresting devices (SRD's) and the installed lifeline system HLL.
- Verify that system inputs, clearances, and user capacity meet the original HLL manufacturer's specifications.
- Approve the complete system design based on **OSHA 1910.66 / 1926.502(d)(8)** requirements.

Use of Non-Reliance HLL Systems with Reliance Skyline™ Stanchions

Anchorage Capacity:

- When **properly installed** with **appropriate strong-back or tie-back support**, Reliance Skyline stanchions provide an anchorage capacity of up to **14,400 lbs**. in a **2:1 engineered system.**
- Non-Reliance HLL systems with **maximum line tension ≤7,000 lbs.** may be used **only under the supervision and approval of a Qualified Person**.
- Reliance makes **no claims** regarding user capacity or clearance performance of third-party HLL systems.

Cautions and Limitations:

- **Clearance Requirements**: Non-Reliance systems may require greater clearance than a full Reliance system. Clearance differences must be accounted for by the Qualified Person.
- **User Capacity**: Must be determined based on the HLL manufacturer's design and compatibility with the arrest device. Capacity may be reduced if the SRDs exceed expected force or deceleration parameters.
- **System Performance Disclaimer**: SureWerx and Reliance **make no warranty or performance claims** for non-Reliance HLL systems or devices used with Skyline™ stanchions.
- **Tie-Back Cable Requirements:** Reliance Skyline stanchions are designed for use in applications where falls are expected to occur within 6 feet of the horizontal lifeline's centerline when using tie-backs or 3ft when using strong-backs. Working beyond the approved offset may require the installation and use of additional tie-backs; up to four tie-back cables (two per end) to maintain system stability and proper tension. **Contact Reliance Engineering prior to installation if user movement, standoff distance, or system loading conditions are uncertain.**

System Performance Examples, other system clearances will vary by manufacture, these examples are not representative of all non-Reliance systems. A 2-Span non-Reliance system requires the center stanchion have appropriate strong-back or tie-back supports for both directions of loading

(6 ft stanchions, Reliance Micro-Lok used for baselines)

Configuration	40 ft Single-Span	60 ft 2-Span	100 ft Single-Span	100 ft 2-Span
Reliance 2 User System	8.21 ft	7.937 ft	11.36 ft	9.26 ft
Reliance 4 User System	8.40 ft	8.15 ft	12.21 ft	9.73 ft
Other 2 User System	15.83 ft	18.75 ft	—	17.25 ft (2 users/span max)
Other 4 User System	—	14.33 ft	—	17.25 ft (2 users/span max)

Qualified Person Responsibilities Statement:

The proper use of Reliance Skyline™ Horizontal Lifeline (HLL) stanchions with non-Reliance HLL systems or fall arrest devices requires the oversight, evaluation, and documented approval of a Qualified Person as defined by OSHA 29 CFR 1926.32(m). When configuring systems using any third-party horizontal lifeline components or self-retracting devices (SRDs), the following responsibilities apply:

System Compatibility and Anchorage Evaluation

- The Qualified Person must verify that any third-party HLL system does not exceed **7,000 lbs. maximum line tension** during dynamic loading.
- They must confirm that **stanchion anchorage capacity** (up to 14,400 lbs. when used with appropriate tie-back or strong-back support) is not exceeded based on the selected lifeline design, span length, number of users, and type of energy absorber.

Clearance and User Capacity Determination

- All **fall clearance requirements** must be evaluated and documented using manufacturer data for the specific HLL and SRDs being deployed.
- The Qualified Person must account for **variations in arrest distance, deceleration extension, and energy absorber performance**, especially when using SRDs with arrest distances or retracted length values exceeding 24" and 12" respectively.
- **User capacity** must be calculated based on both the arresting force of the SRD and the design of the HLL system. The use of SRDs with Maximum Arrest Forces (MAF) above 900 lbs. may require derating the number of allowed users per span or system.

System Configuration and Tie-Back Stability

- The Qualified Person is responsible for ensuring **system stability** based on expected user movement and offset from the lifeline centerline.
    - For typical applications, stanchions are rated for fall exposure within **6 feet** of the lifeline's centerline when tie-backs are used, or **3 feet** with strong-backs.
    - If user exposure exceeds these limits, up to **four tie-back cables** (two per stanchion end) may be required to maintain proper system geometry and tension.
    - Any uncertainty about tie-back requirements, loading, or dynamic behavior must be reviewed in consultation with **Reliance Engineering** prior to deployment.

Limitations and Disclaimer Acknowledgment

- The Qualified Person must acknowledge that **SureWerx and Reliance make no warranty or performance claims** for non-Reliance HLL systems or arrest devices used with Skyline™ stanchions.
- It is the responsibility of the Qualified Person to ensure full compliance with OSHA 1910.140, 1926.502(d)(8), ANSI Z359.6, and Z359.14 standards when configuring systems involving mixed components.
- All evaluations, decisions, and modifications must be **documented** and retained in accordance with company safety policy and applicable regulations.

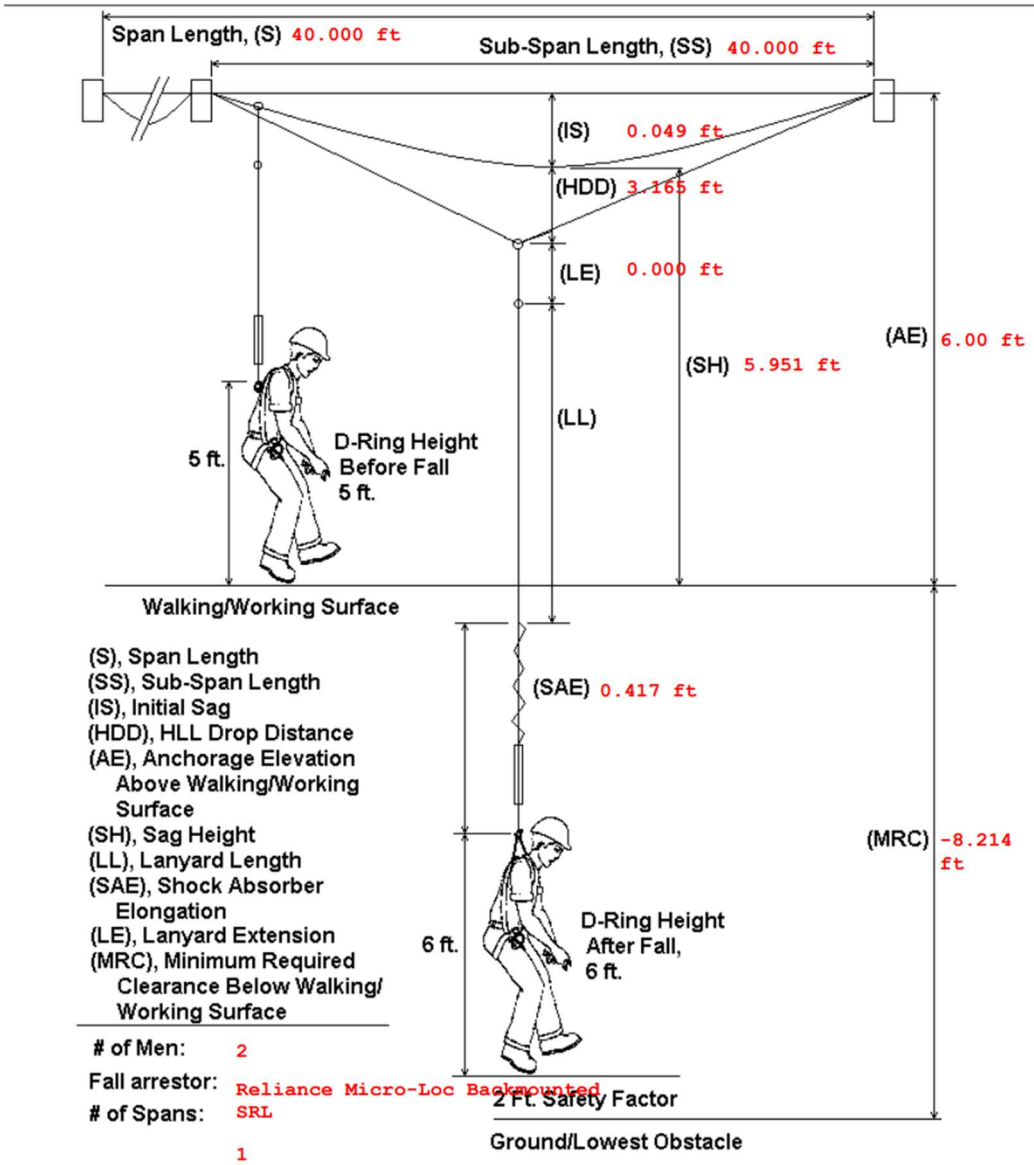
Reliance 40ft Two-User Single-Span

Horizontal LifeLine Calculation Results

Min. Required Clearance (MRC)	-8.214 ft
Min. Required Anchor Strength	6,216.000 lbs
Anchorage Elevation (AE)	6.00 ft
Final Line Tension	3,108.000 lbs
Final Vertical Length	-0.830 ft
Free Fall Distance (FFD)	0.830 ft
HLL Drop Distance (HDD)	3.165 ft
HLL Line Material	IPS_Wire_Rope
HLL Sag Height (SH)	5.951 ft
Initial Sag (IS)	0.049 ft
Lanyard Extension Length (LE)	0.000 ft
Number of Center Supports	0
Number of End Supports	2
Number of Sub-spans	1
Number of People on HLL	2
Shock Absorbing Lanyard Length	6.00 ft
Skyline SAE Elongation	0.417 ft
Sub-Span Length (SS)	40.000 ft
Shock Absorber Extension (SAE)	2.000 ft
Total Span Length (S)	40.000 ft
Vertical Lanyard Type	Reliance Micro-Loc Backmounted SRL

NOTE: The Final Line Tension and Min. Required Clearance numbers are certified traceable to test results by Reliance Engineering. Only Shock absorbing lanyards and SRL's with 900 lbs. MAF shock absorbtion may be used. This sheet makes no claim to determining whether a Skyline HLL System is right for a particular application or situation.

Reliance 40ft Two-User Single-Span



Reliance 40ft Four-User Single-Span

Horizontal LifeLine Calculation Results

Min. Required Clearance (MRC)	-8.404 ft
Min. Required Anchor Strength	8,940.000 lbs
Anchorage Elevation (AE)	6.00 ft
Final Line Tension	4,470.000 lbs
Final Vertical Length	-0.830 ft
Free Fall Distance (FFD)	0.830 ft
HLL Drop Distance (HDD)	3.355 ft
HLL Line Material	IPS_Wire_Rope
HLL Sag Height (SH)	5.951 ft
Initial Sag (IS)	0.049 ft
Lanyard Extension Length (LE)	0.000 ft
Number of Center Supports	0
Number of End Supports	2
Number of Sub-spans	1
Number of People on HLL	4
Shock Absorbing Lanyard Length	6.00 ft
Skyline SAE Elongation	0.417 ft
Sub-Span Length (SS)	40.000 ft
Shock Absorber Extension (SAE)	2.000 ft
Total Span Length (S)	40.000 ft
Vertical Lanyard Type	Reliance Micro-Loc Backmounted SRL

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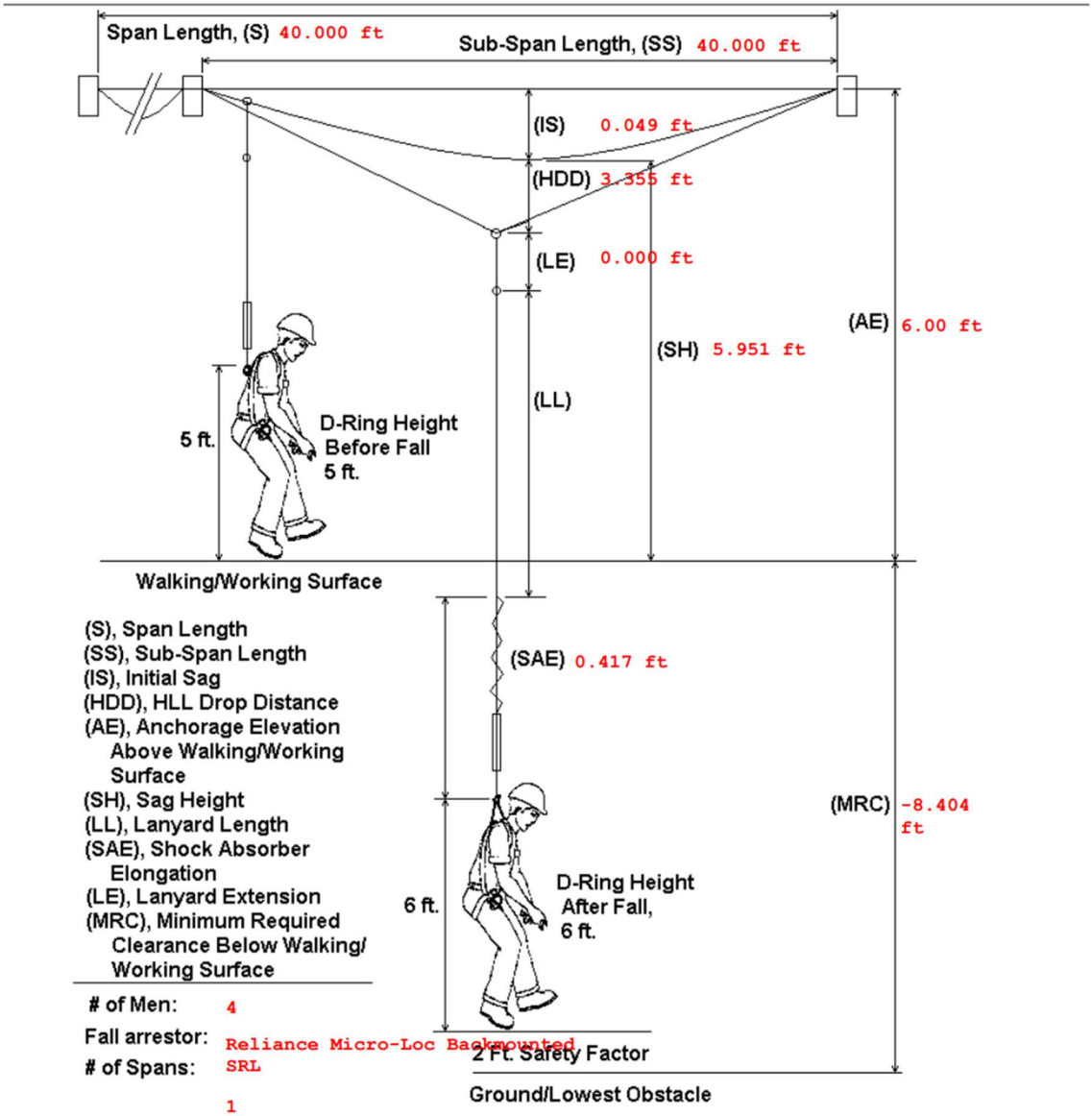
Reliance 40ft Four-User Single-Span



LIABILITY DISCLAIMER: This system is for the exclusive use by, or under the supervision of a 'Qualified Person' in Fall Protection per Federal OSHA definition, CFR 1910 & 1926. Certification of anchorage strength shall be the responsibility of the customer and must be certified by a Registered Professional Engineer, qualified in Fall Protection.

Reliance 60ft Two-User 2-Span

Horizontal LifeLine Calculation Results

Min. Required Clearance (MRC)	-7.937 ft
Min. Required Anchor Strength	5,784.000 lbs
Anchorage Elevation (AE)	6.00 ft
Final Line Tension	2,892.000 lbs
Final Vertical Length	-0.830 ft
Free Fall Distance (FFD)	0.830 ft
HLL Drop Distance (HDD)	2.910 ft
HLL Line Material	IPS_Wire_Rope
HLL Sag Height (SH)	5.973 ft
Initial Sag (IS)	0.027 ft
Lanyard Extension Length (LE)	0.000 ft
Number of Center Supports	1
Number of End Supports	2
Number of Sub-spans	2
Number of People on HLL	2
Shock Absorbing Lanyard Length	6.00 ft
Skyline SAE Elongation	0.417 ft
Sub-Span Length (SS)	30.000 ft
Shock Absorber Extension (SAE)	2.000 ft
Total Span Length (S)	60.000 ft
Vertical Lanyard Type	Reliance Micro-Loc Backmounted SRL

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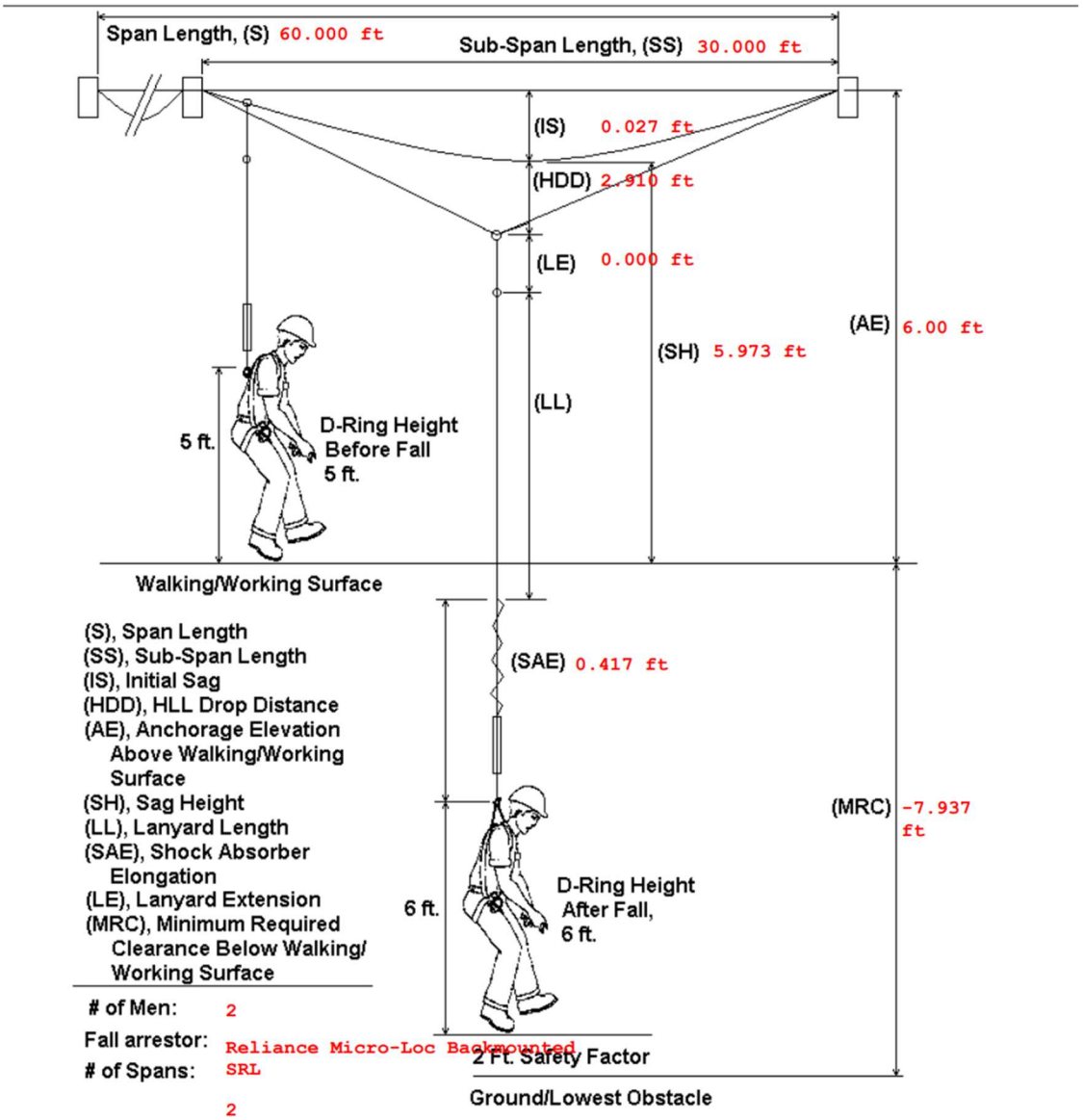
Reliance 60ft Two-User 2-Span



Reliance 60ft Four-User 2-Span

Horizontal LifeLine Calculation Results

Min. Required Clearance (MRC)	-8.153 ft
Min. Required Anchor Strength	8,294.000 lbs
Anchorage Elevation (AE)	6.00 ft
Final Line Tension	4,147.000 lbs
Final Vertical Length	-0.830 ft
Free Fall Distance (FFD)	0.830 ft
HLL Drop Distance (HDD)	3.126 ft
HLL Line Material	IPS_Wire_Rope
HLL Sag Height (SH)	5.973 ft
Initial Sag (IS)	0.027 ft
Lanyard Extension Length (LE)	0.000 ft
Number of Center Supports	1
Number of End Supports	2
Number of Sub-spans	2
Number of People on HLL	4
Shock Absorbing Lanyard Length	6.00 ft
Skyline SAE Elongation	0.417 ft
Sub-Span Length (SS)	30.000 ft
Shock Absorber Extension (SAE)	2.000 ft
Total Span Length (S)	60.000 ft
Vertical Lanyard Type	Reliance Micro-Loc Backmounted SRL

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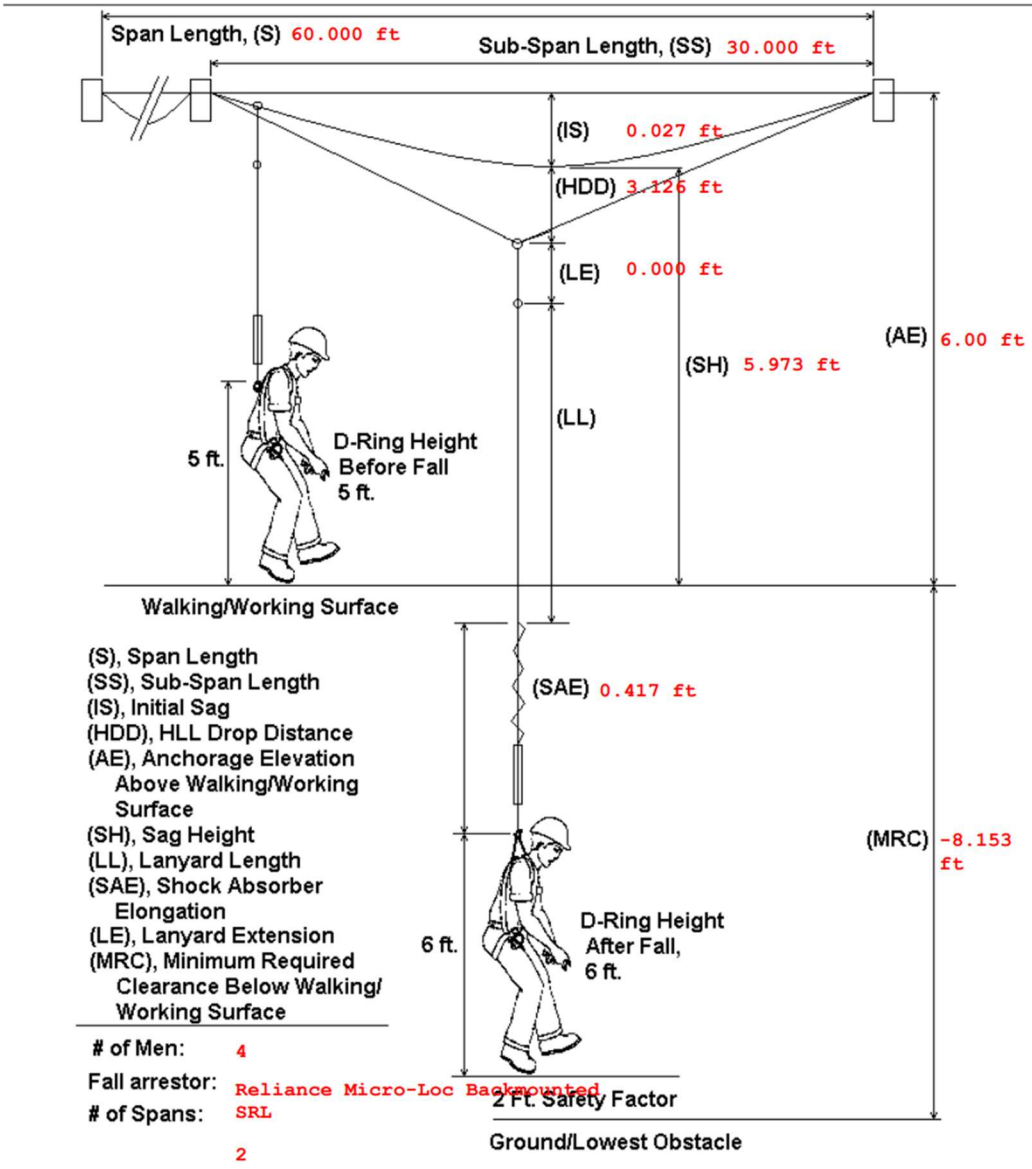
Reliance 60ft Four-User 2-Span



Reliance 100 ft Two-User Single-Span

Horizontal LifeLine Calculation Results

Min. Required Clearance (MRC)	-11.364 ft
Min. Required Anchor Strength	8,800.000 lbs
Anchorage Elevation (AE)	6.00 ft
Final Line Tension	4,400.000 lbs
Final Vertical Length	-0.830 ft
Free Fall Distance (FFD)	0.830 ft
HLL Drop Distance (HDD)	6.060 ft
HLL Line Material	IPS_Wire_Rope
HLL Sag Height (SH)	5.696 ft
Initial Sag (IS)	0.304 ft
Lanyard Extension Length (LE)	0.000 ft
Number of Center Supports	0
Number of End Supports	2
Number of Sub-spans	1
Number of People on HLL	2
Shock Absorbing Lanyard Length	6.00 ft
Skyline SAE Elongation	0.417 ft
Sub-Span Length (SS)	100.000 ft
Shock Absorber Extension (SAE)	2.000 ft
Total Span Length (S)	100.000 ft
Vertical Lanyard Type	Reliance Micro-Loc Backmounted SRL

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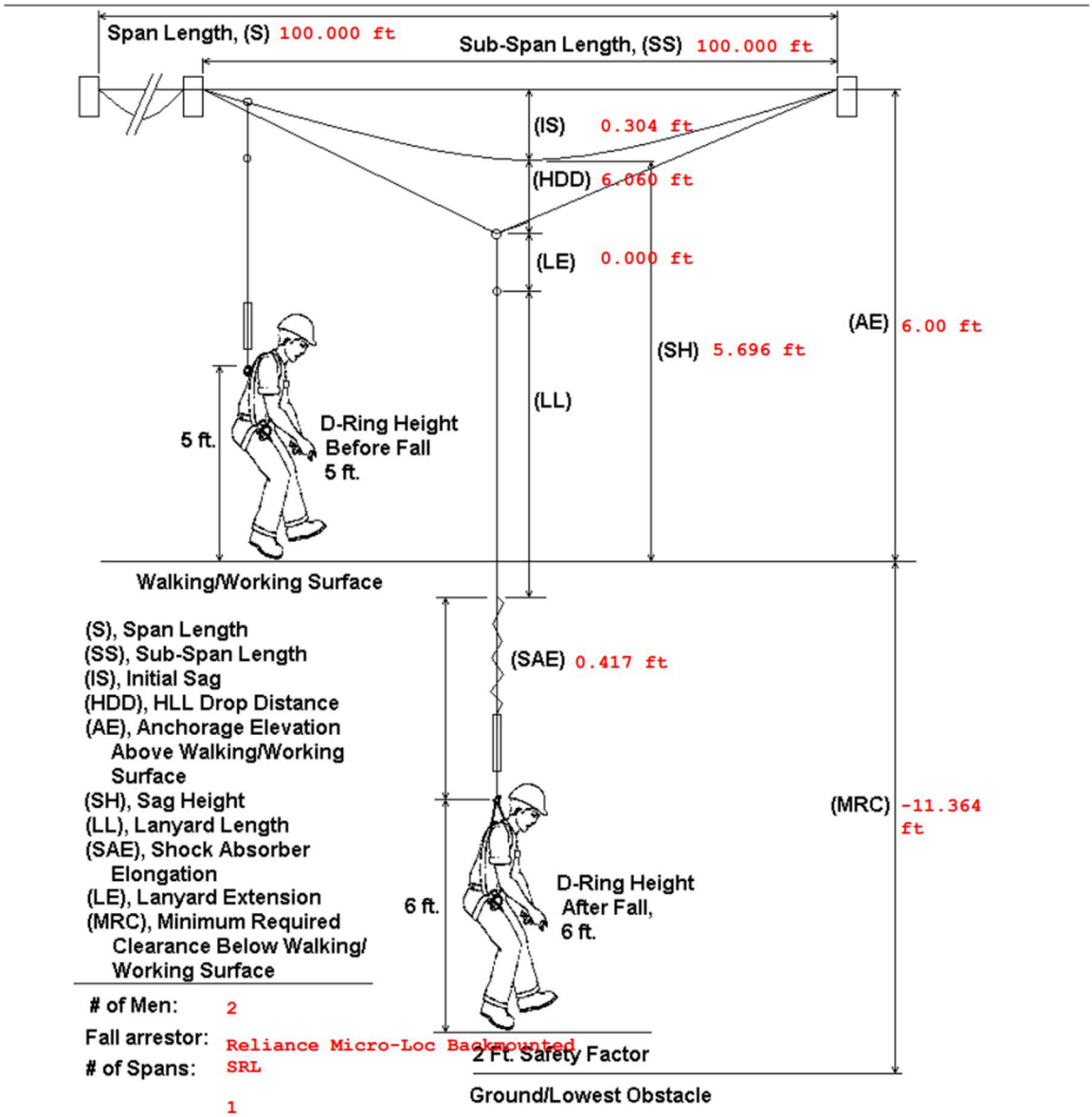
Reliance 100 ft Two-User Single-Span



Reliance 100 ft Four-User Single-Span

Horizontal LifeLine Calculation Results

Min. Required Clearance (MRC)	-12.213 ft
Min. Required Anchor Strength	12,808.000 lbs
Anchorage Elevation (AE)	6.00 ft
Final Line Tension	6,404.000 lbs
Final Vertical Length	-0.830 ft
Free Fall Distance (FFD)	0.830 ft
HLL Drop Distance (HDD)	6.909 ft
HLL Line Material	IPS_Wire_Rope
HLL Sag Height (SH)	5.696 ft
Initial Sag (IS)	0.304 ft
Lanyard Extension Length (LE)	0.000 ft
Number of Center Supports	0
Number of End Supports	2
Number of Sub-spans	1
Number of People on HLL	4
Shock Absorbing Lanyard Length	6.00 ft
Skyline SAE Elongation	0.417 ft
Sub-Span Length (SS)	100.000 ft
Shock Absorber Extension (SAE)	2.000 ft
Total Span Length (S)	100.000 ft
Vertical Lanyard Type	Reliance Micro-Loc Backmounted SRL

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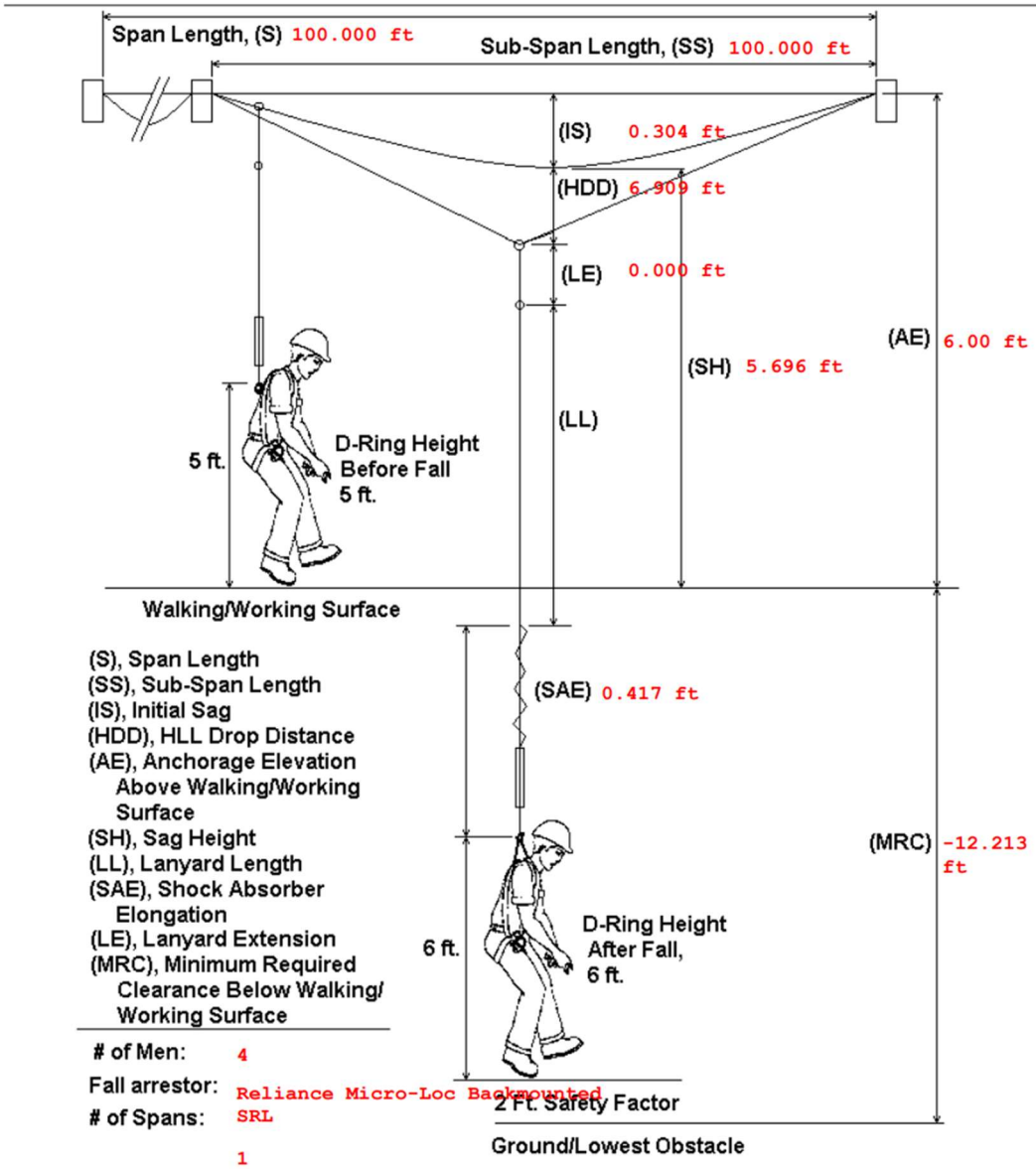
Reliance 100 ft Four-User Single-Span



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Reliance 100 ft Two-User 2-Span

Horizontal LifeLine Calculation Results

Min. Required Clearance (MRC)	-9.261 ft
Min. Required Anchor Strength	6,646.000 lbs
Anchorage Elevation (AE)	6.00 ft
Final Line Tension	3,323.000 lbs
Final Vertical Length	-0.830 ft
Free Fall Distance (FFD)	0.830 ft
HLL Drop Distance (HDD)	4.185 ft
HLL Line Material	IPS_Wire_Rope
HLL Sag Height (SH)	5.924 ft
Initial Sag (IS)	0.076 ft
Lanyard Extension Length (LE)	0.000 ft
Number of Center Supports	1
Number of End Supports	2
Number of Sub-spans	2
Number of People on HLL	2
Shock Absorbing Lanyard Length	6.00 ft
Skyline SAE Elongation	0.417 ft
Sub-Span Length (SS)	50.000 ft
Shock Absorber Extension (SAE)	2.000 ft
Total Span Length (S)	100.000 ft
Vertical Lanyard Type	Reliance Micro-Loc Backmounted SRL

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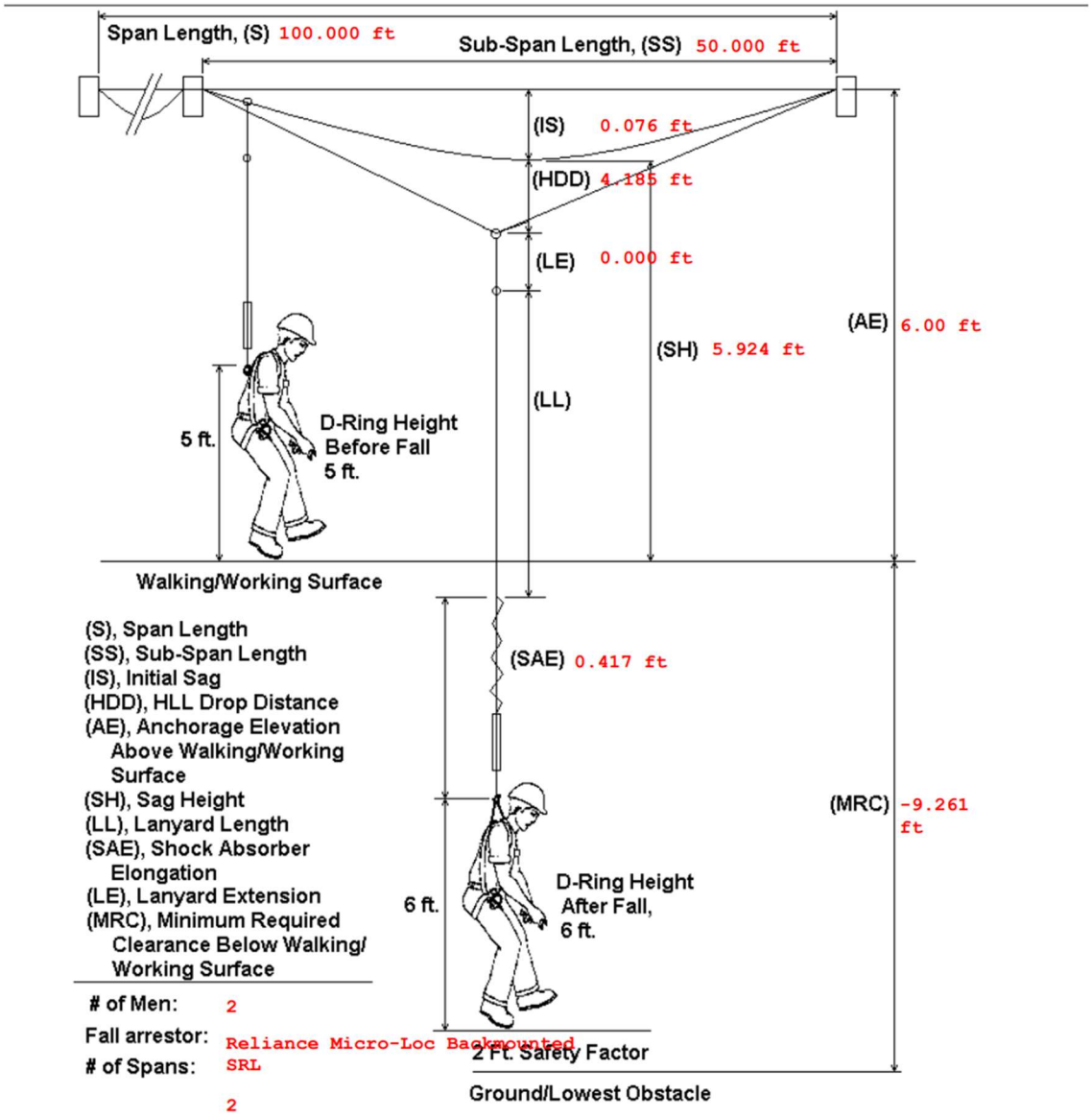
Reliance 100 ft Two-User 2-Span



Reliance 100 ft Four-User 2-Span

Horizontal LifeLine Calculation Results

Min. Required Clearance (MRC)	-9.734 ft
Min. Required Anchor Strength	9,584.000 lbs
Anchorage Elevation (AE)	6.00 ft
Final Line Tension	4,792.000 lbs
Final Vertical Length	-0.830 ft
Free Fall Distance (FFD)	0.830 ft
HLL Drop Distance (HDD)	4.658 ft
HLL Line Material	IPS_Wire_Rope
HLL Sag Height (SH)	5.924 ft
Initial Sag (IS)	0.076 ft
Lanyard Extension Length (LE)	0.000 ft
Number of Center Supports	1
Number of End Supports	2
Number of Sub-spans	2
Number of People on HLL	4
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Skyline SAE Elongation	0.417 ft
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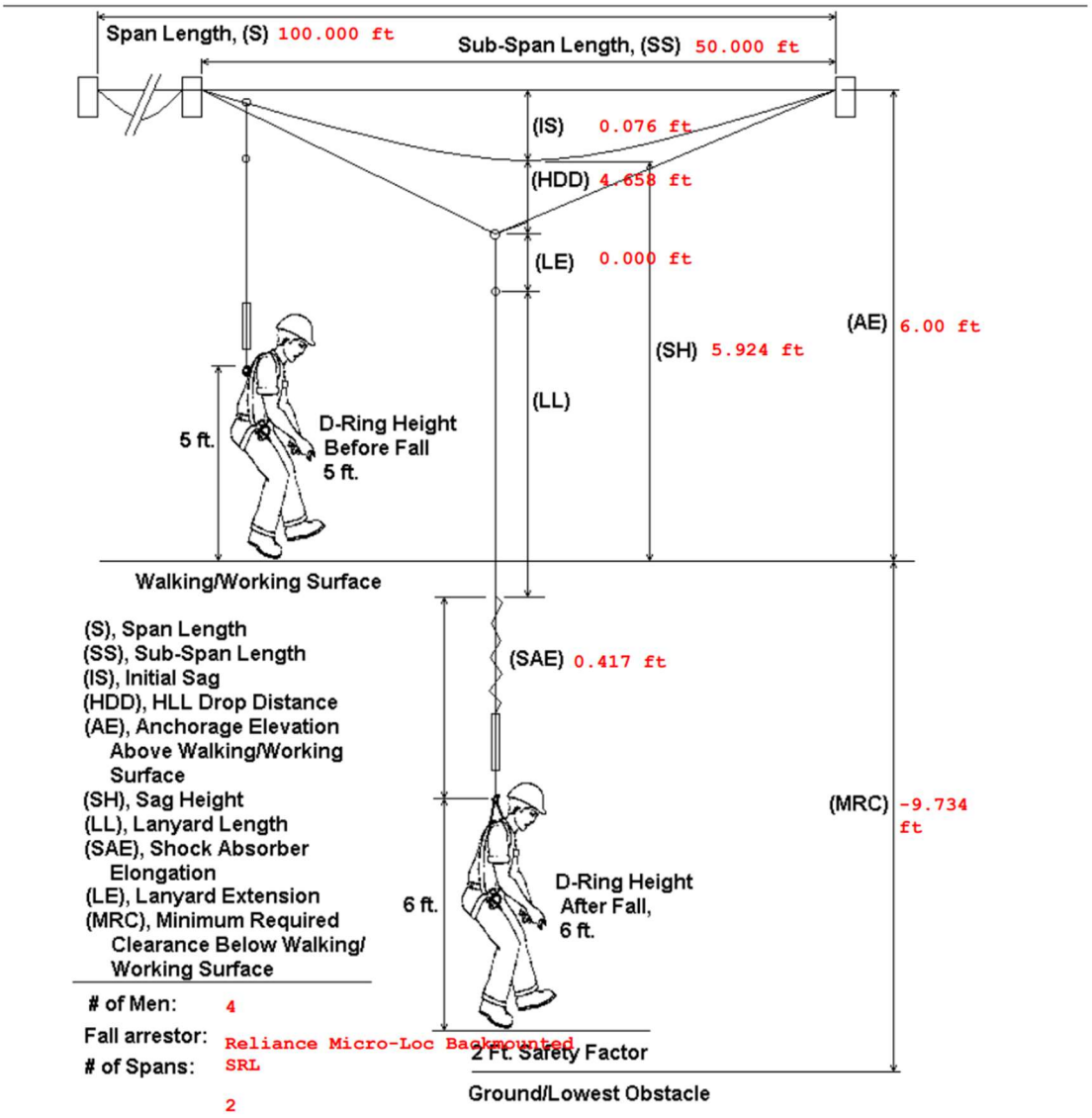

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- All **fall clearance requirements** must be evaluated and documented using manufacturer data for the specific HLL and SRDs being deployed.
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- The Qualified Person is responsible for ensuring **system stability** based on expected user movement and offset from the lifeline centerline.
    - For typical applications, stanchions are rated for fall exposure within **6 feet** of the lifeline's centerline when tie-backs are used, or **3 feet** with strong-backs.
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