BBAA Aleros Norte

Project Notes

This screen is for adding general information to a report. Basic text editing facilities are available.

This message can be replaced by any text that will normally be included in the notes such as your company's name.

To set up the default text, perform the following steps:-

- Delete this message by clicking File, Delete and selecting Yes when asked to confirm.
- Type in and format your own message or notes
- Save as the new default message by clicking File, Save as default.

Note that the above procedure is only necessary when changing the default notes. The notes for each project will be saved automatically with the project data.

These notes were modified on
16th May 2006

Customer:

User:

UPV

System Layout - Summary

Total length of system = 134.00 m
Total number of spans = 21
Number of plain spans = 21
Number of 45 degree bends = 0
Number of 90 degree bends = 0
Longest span 19) = 10.00 m
Shortest span 7) = 5.00 m
Initial tension in cable = 5.00 kN
Cable material is 8 mm 1x19 Stainless steel cable fitted with Uniwheel for 8 mm stainless steel cable mobile attachement device
No force management system

Layout Details

Span number	Length	Type	Users
1	6.00 m	Normal span	A
2	6.00 m	Normal span	
3	6.00 m	Normal span	
4	6.00 m	Normal span	
5	8.00 m	Normal span	
6	7.00 m	Normal span	
7	5.00 m	Normal span	
8	7.00 m	Normal span	
9	5.00 m	Normal span	B
10	7.00 m	Normal span	
11	5.00 m	Normal span	C
12	7.00 m	Normal span	
13	5.00 m	Normal span	D and E
14	7.00 m	Normal span	
15	5.00 m	Normal span	
16	7.00 m	Normal span	
17	5.00 m	Normal span	
18	7.00 m	Normal span	
19	10.00 m	Normal span	
20	6.50 m	Normal span	
21	6.50 m	Normal span	

User Details

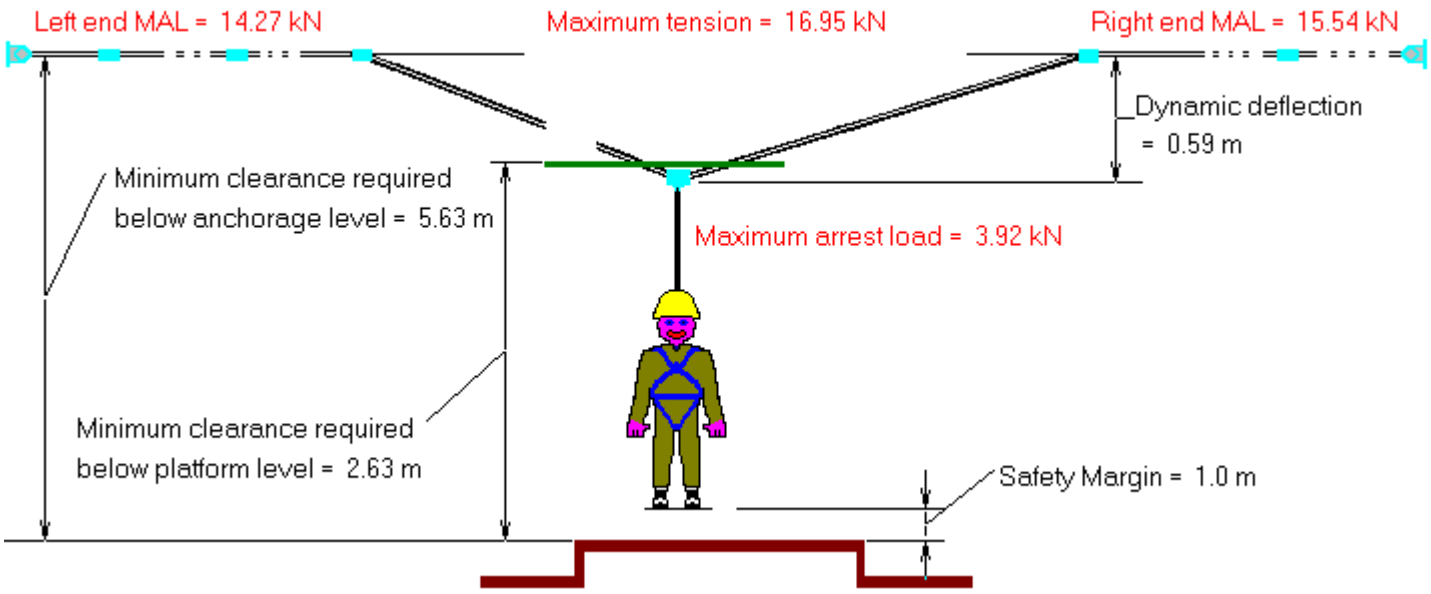
Total number of users = 5
Highest user = A at whose D-ring is 1.40 m BELOW the system datum on span number 1
Lowest user = A at whose D-ring is 1.40 m BELOW the system datum on span number 1
Mass of user = 100 kgm
Faller is a user in a harness
Lanyard is Webbing Lanyard with a length of 2.00 m
Braking force = 3.9 kN
Lanyard shock absorber type = Uniline (400 kg) lanyard shock absorber
User's D-ring is 1.6 m above the walkway

Positions of users

	User A	User B	User C
On span number	1	9	11
From left end of span	3.00 m	2.50 m	2.50 m
D-Ring above system	-1.40 m	-1.40 m	-1.40 m
System above walkway	3.00 m	3.00 m	3.00 m

	User D	User E
On span number	13	13
From left end of span	2.30 m	2.70 m
D-Ring above system	-1.40 m	-1.40 m
System above walkway	3.00 m	3.00 m

Schematic view of system after arrest

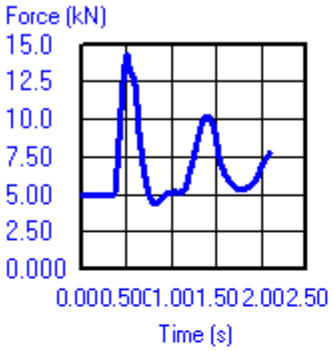


Note 1: When calculating minimum clearance distances, consideration should be given to obstacles beneath the work area

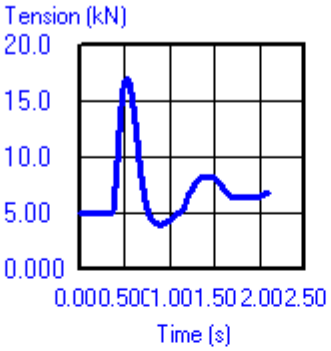
Note 2: Both structural anchors must be capable of withstanding a load of the highest MAL times a safety factor of 2 in accordance with EN795

Graphical Representation of Arrest History

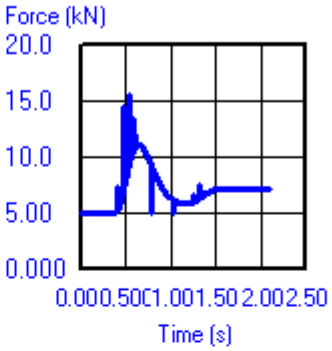
Left end arrest load



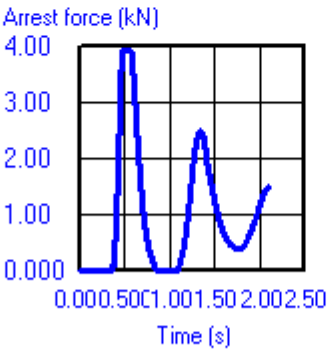
Tension in cable



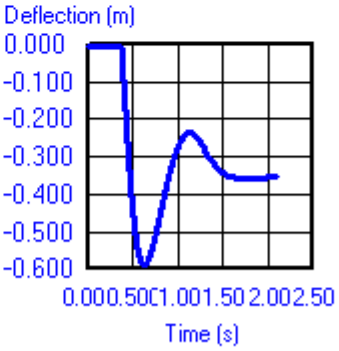
Right end arrest load



Arrest force in lanyard C



Dynamic deflection E



Project: BBAA Aleros Norte

Ref:

Customer:
Calculated on 23/03/2012 9:00:05

Description of System
Total length of system = 134.00 m
8 mm 1x19 Stainless steel cable + Uniwheel for 8 mm stainless steel cable + Uniline webbing

Longest span = 10.00 m
Shortest span = 5.00 m
Initial tension in cable = 5.00 kN
Total number of users = 5
Highest user was positioned with his D-ring 1.40 m BELOW the system datum

Maximum Forces
MAL = Maximum arrest load at left end of system = 14.27 kN
MAL = Maximum arrest load at right end of system = 15.54 kN
MAF = Maximum arrest force in lanyard = 3.92 kN
Maximum tension in cable = 16.95 kN

Maximum cable tension is within the safe limit
Both MALs are within the safe limit
Maximum arrest force (MAF) is within the safe limit

Maximum deflections
Maximum dynamic deflection of the cable = 0.59 m
Maximum drop measured from cable datum to D-ring = 2.73 m (for user E)
Maximum drop measured from walkway to user's feet = 1.63 m (for user E)

Clearance Requirements
Minimum clearance required below walkway level = 2.63 m (for user E)
Minimum clearance required below anchorage level = 5.63 m (for user E)

Minimum clearance includes a safety margin of 1.00 m

Calculations approved by _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 23/03/2012