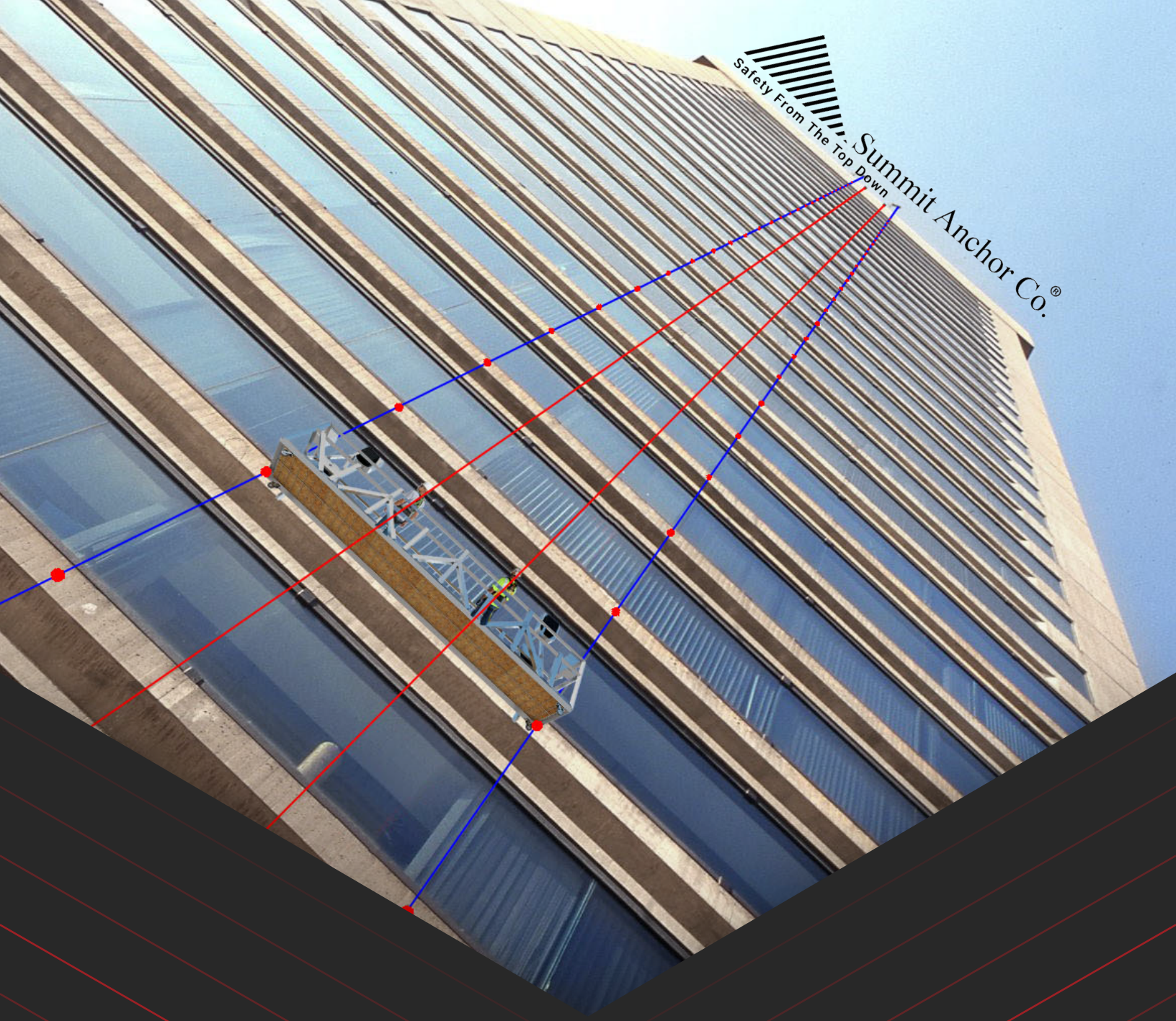


STABILIZATION

MANUAL

Overview

Why is stabilization needed?

Generally, stabilization is intended to keep workers suspended on platforms from swaying due to the effects of wind and to help with work positioning.

See how suspended platforms may perform no stabilization is used in the video.

https://www.youtube.com/watch?v=Pe3JHzOzBTY

See the videos:

https://www.linedin.com/feed/update/urn:li:activity:7137555984440324097/

https://www.cbc.ca/news/canada/edmonton/stantec-tower-scaffold-fire-rescue-1.5336068

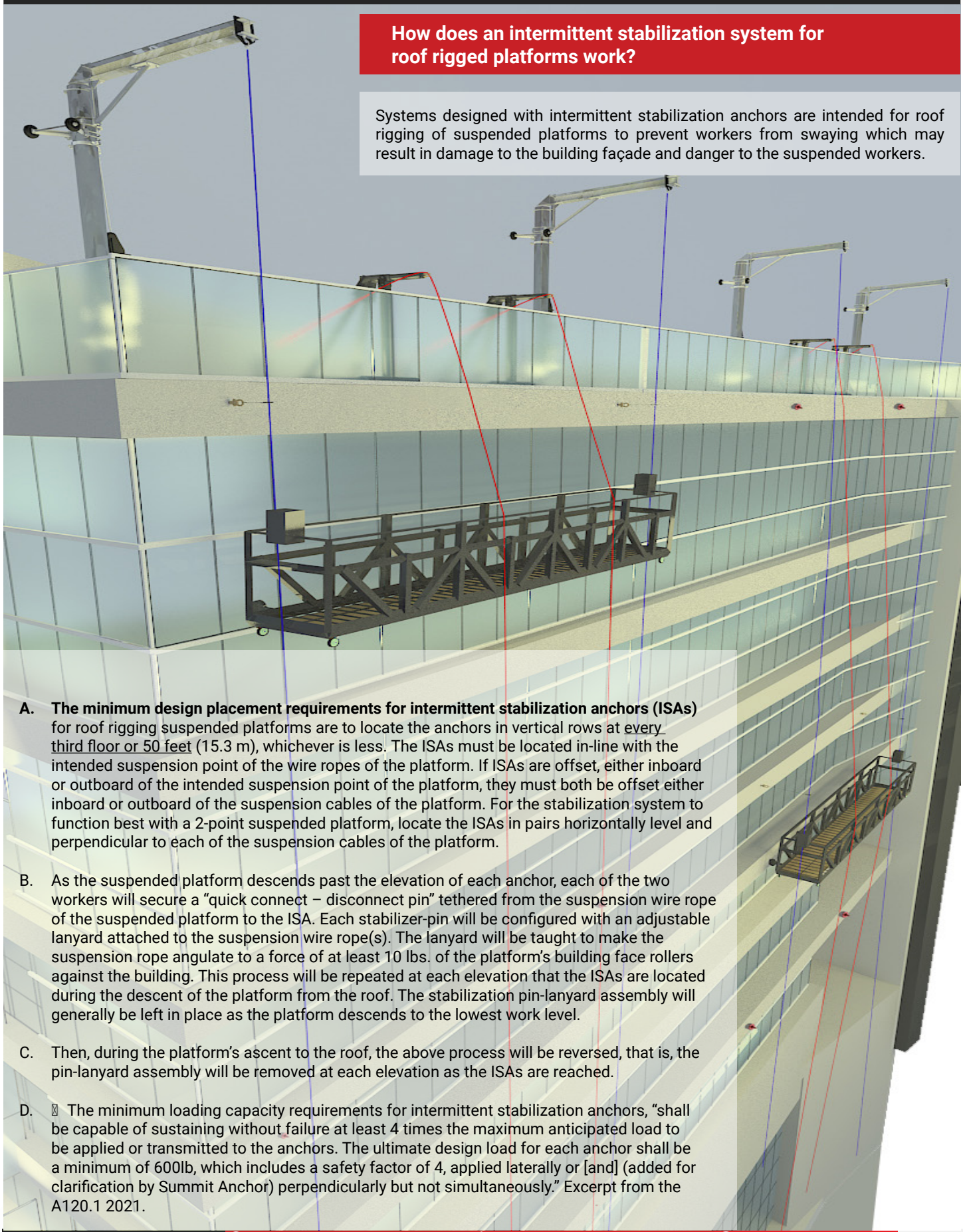
Is stabilization required?

Stabilization in some form is required for most suspended work.

Roof Rigging with Intermittent Stabilization.

How does an intermittent stabilization system for roof rigged platforms work?

Systems designed with intermittent stabilization anchors are intended for roof rigging of suspended platforms to prevent workers from swaying which may result in damage to the building façade and danger to the suspended workers.

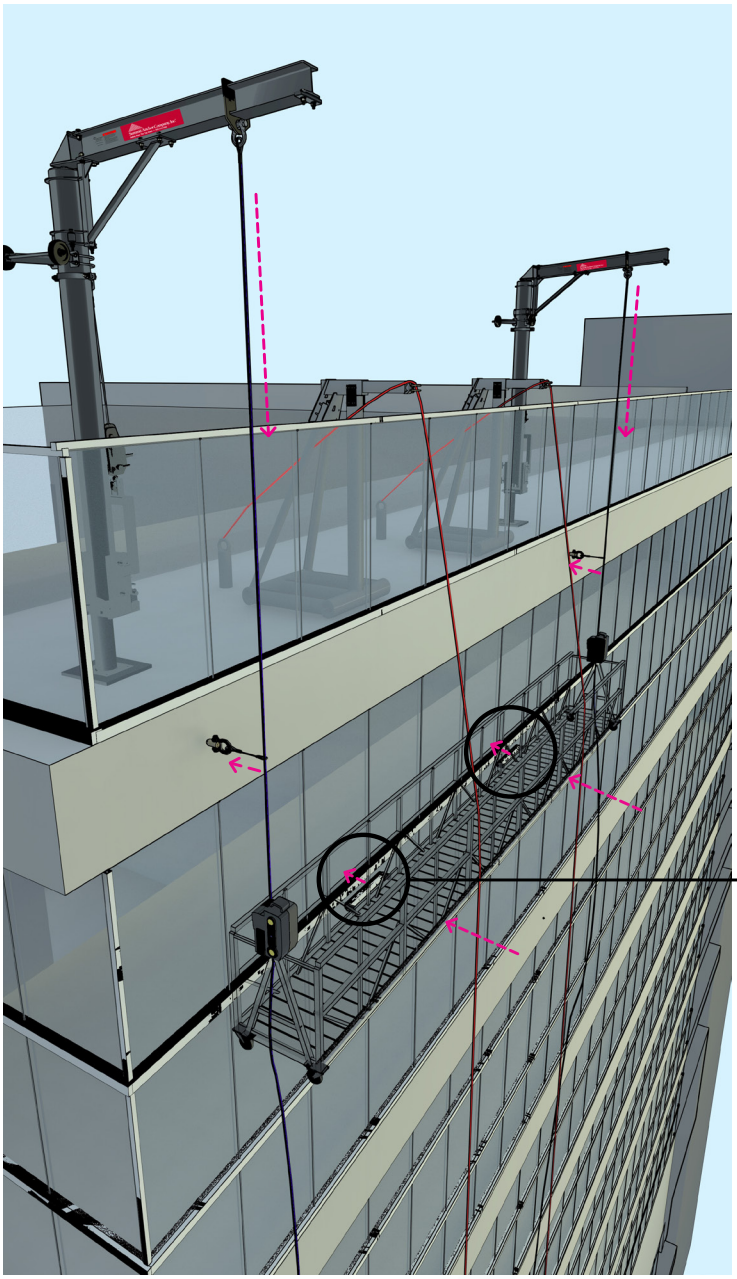


A. **The minimum design placement requirements for intermittent stabilization anchors (ISAs)** for roof rigging suspended platforms are to locate the anchors in vertical rows at every third floor or 50 feet (15.3 m), whichever is less. The ISAs must be located in-line with the intended suspension point of the wire ropes of the platform. If ISAs are offset, either inboard or outboard of the intended suspension point of the platform, they must both be offset either inboard or outboard of the suspension cables of the platform. For the stabilization system to function best with a 2-point suspended platform, locate the ISAs in pairs horizontally level and perpendicular to each of the suspension cables of the platform.

B. As the suspended platform descends past the elevation of each anchor, each of the two workers will secure a "quick connect – disconnect pin" tethered from the suspension wire rope of the suspended platform to the ISA. Each stabilizer-pin will be configured with an adjustable lanyard attached to the suspension wire rope(s). The lanyard will be taught to make the suspension rope angulate to a force of at least 10 lbs. of the platform's building face rollers against the building. This process will be repeated at each elevation that the ISAs are located during the descent of the platform from the roof. The stabilization pin-lanyard assembly will generally be left in place as the platform descends to the lowest work level.

C. Then, during the platform's ascent to the roof, the above process will be reversed, that is, the pin-lanyard assembly will be removed at each elevation as the ISAs are reached.

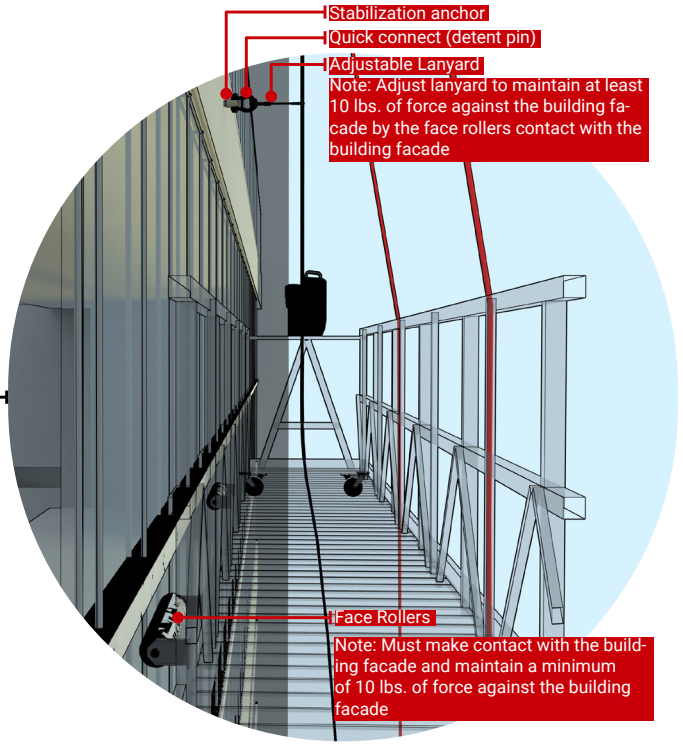
D. The minimum loading capacity requirements for intermittent stabilization anchors, "shall be capable of sustaining without failure at least 4 times the maximum anticipated load to be applied or transmitted to the anchors. The ultimate design load for each anchor shall be a minimum of 600lb, which includes a safety factor of 4, applied laterally or [and] (added for clarification by Summit Anchor) perpendicularly but not simultaneously." Excerpt from the A120.1 2021.



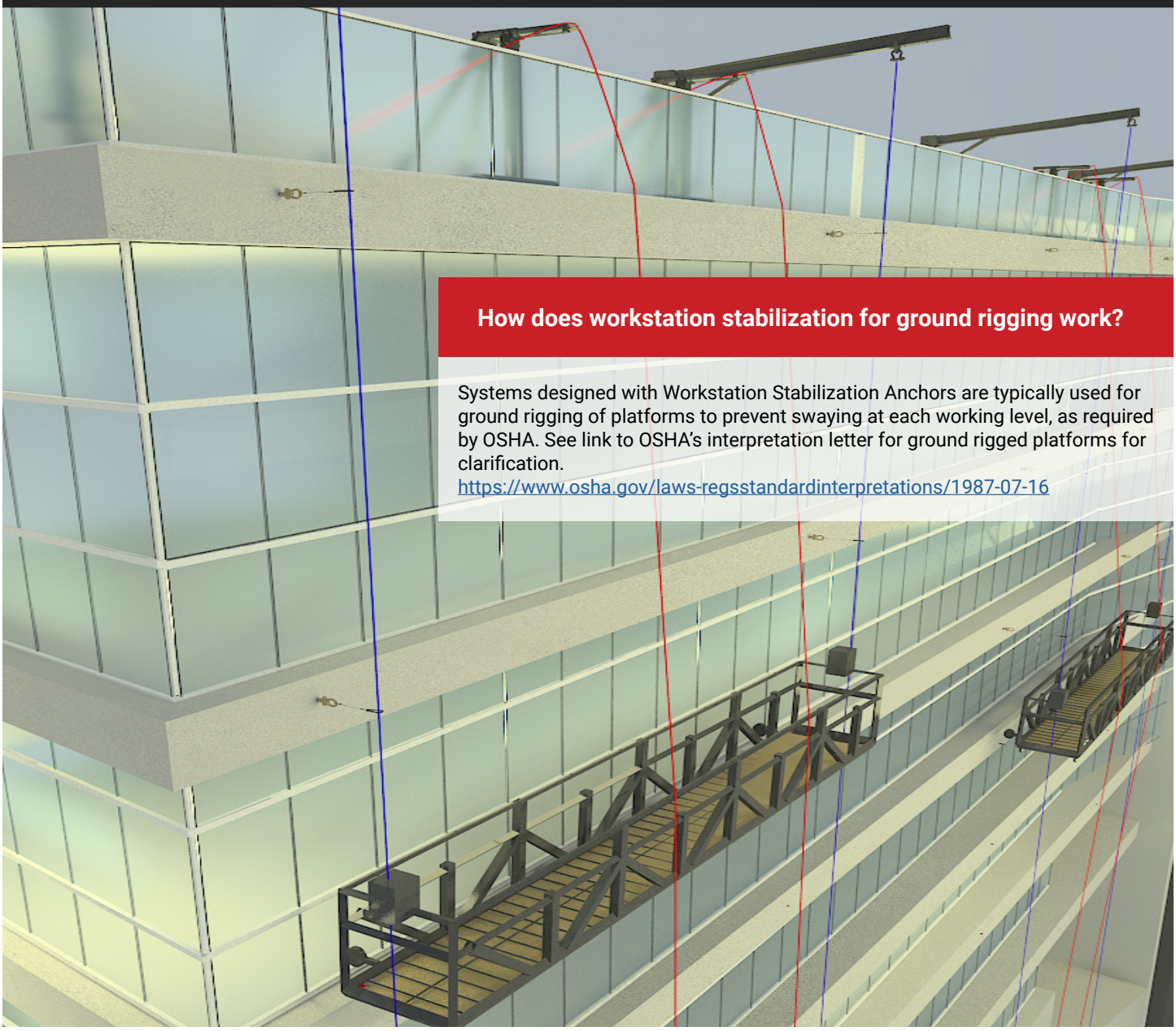
ROOF RIGGING

WITH INTERMITENT STABILIZATION ANCHORS

As the suspended platform descends past the elevation of each anchor, each of the two workers will secure a "quick connect – disconnect pin" tethered from the suspension wire rope of the suspended platform to the ISA. Each stabilizer-pin will be configured with an adjustable lanyard attached to the suspension wire rope(s). The lanyard will be taut making the suspension rope angulate to a force of at least 10 lbs. of the platform's building face rollers against the building.



Ground Rigging with Intermittent Stabilization.



How does workstation stabilization for ground rigging work?

Systems designed with Workstation Stabilization Anchors are typically used for ground rigging of platforms to prevent swaying at each working level, as required by OSHA. See link to OSHA's interpretation letter for ground rigged platforms for clarification.
https://www.osha.gov/laws-regsstandardinterpretations/1987-07-16

A. **The minimum design requirements for placement of workstation stabilization anchors** are to locate the anchors in vertical rows at each working level. The ISAs must be located in-line with the intended suspension point of the wire ropes of the platform. If ISAs are offset, either inboard or outboard of the intended suspension point of the platform, they must both be offset either inboard or outboard of the suspension cables of the platform. For the stabilization system to function best with a 2-point suspended platform, locate the ISAs in pairs horizontally level and perpendicular to each of the suspension cables of the platform.

B. As the suspended platform ascends to just below the elevation of each anchor, each of the two workers will secure a "quick connect – disconnect pin" tethered from the suspension wire rope of the suspended platform to the building's tie-in anchor. Each stabilizer-pin will be configured with an adjustable lanyard attached to the suspension wire rope(s). The lanyard will be taught to make the suspension rope angulate to a force of at least 10 lbs. of the platform's building face rollers against the building.

C. When workers are ready to ascend to the next workstation, the "stabilization pin-lanyard assembly" will be removed then reconnected at each work elevation at each workstation at the building's tie-in anchor.

D. The minimum loading capacity requirements for intermittent stabilization anchors, "shall be capable of sustaining without failure at least 4 times the maximum anticipated load to be applied or transmitted to the anchors. The ultimate design load for each anchor shall be a minimum of 600lb, which includes a safety factor of 4, applied laterally or [and] (added for clarification by Summit Anchor) perpendicularly but not simultaneously." Excerpt from the A120.1 2021.

Stabilization for Rope Descent Systems.

How do stabilization systems work for rope descent systems?

Rope Descent Systems (RDS) need some form of stabilization. RDS Stabilization includes such options as rope angulation, suction cups, and track systems. OSHA requires "stabilization at the specific work location when descents are greater than 130 feet." OSHA has also determined that workstation stabilization can be something as simple as a suction cup. It is very common for window cleaners to roof rig using RDS. Then, as the worker descends, he/she attaches a suction cup to a window at each workstation to stabilize and to prevent the worker from swaying due to the effects of wind.

See link to OHSA hearing:
https://summitanchor.com/wp-content/uploads/2020/04/Pages-85-86-87.pdf

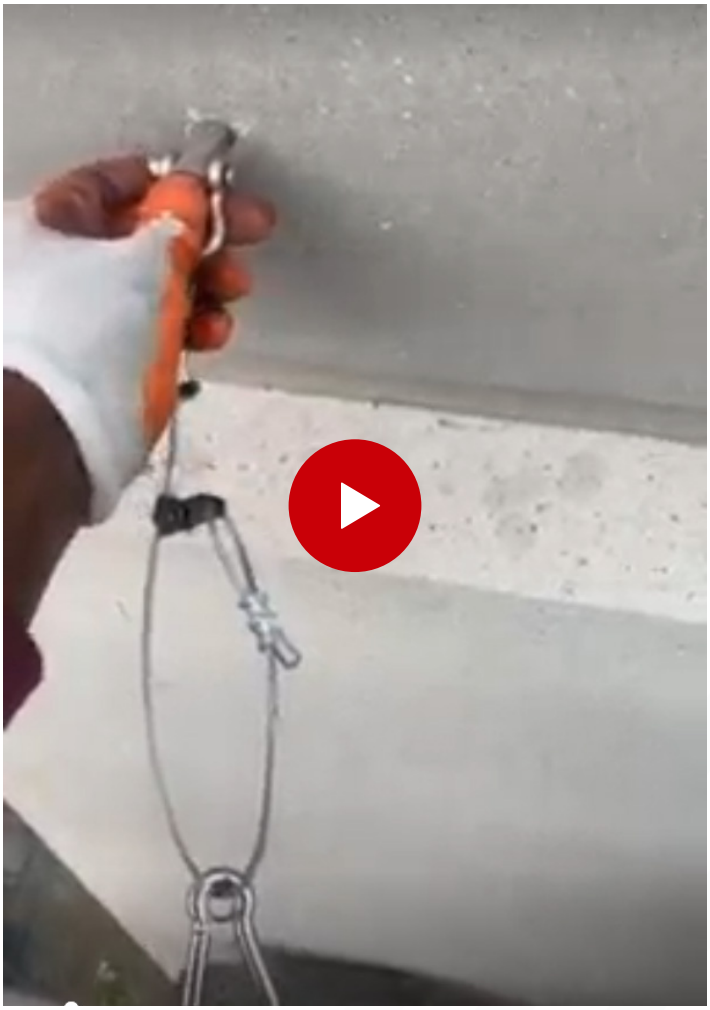
Stabilization can be a permanent solution such as a rail, track system, or mullion track system. These permanent, continuous stabilization systems can provide greater protection from swaying than suction cups which can only be used on smooth surfaces like glass.

Rope Descent Worker using a track system for continuous stabilization and positioning to access an inverted building facade.

Components of Intermittent Stabilization Anchors for Building Facades

Single Intermittent Stabilization System with Anchor Cast in Place

1. Eye for insert into I.S.A. anchor
2. Red plastic cap plug to aid workers visibility in locating on building facade and to protect from debris in compliance with1910.66(e)(2)(iii)(A)(3) “Building anchors shall be easily visible to employees...”
3. Permanent I.S.A. anchor
4. Cast in place mount
5. Push button too detent the lock balls and remove/insert eye
6. Stage suspension cable
7. Connect lanyard from this eye to stage suspension cable
8. Lanyard
9. Building concrete



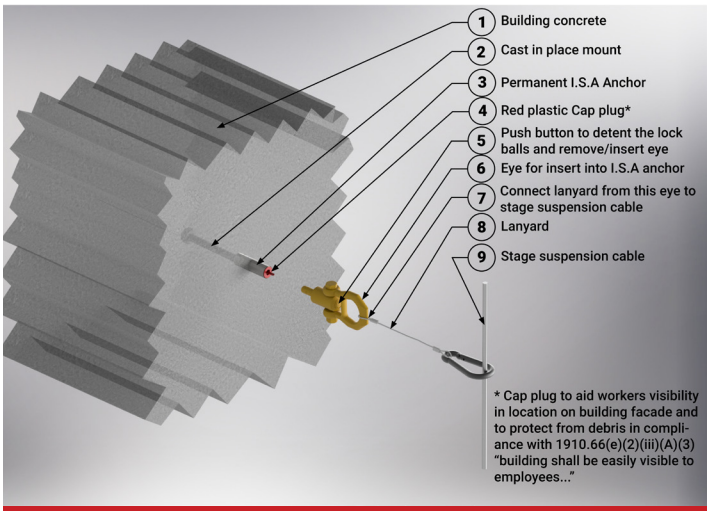


Figure 5: 3D view Cast in place ISA

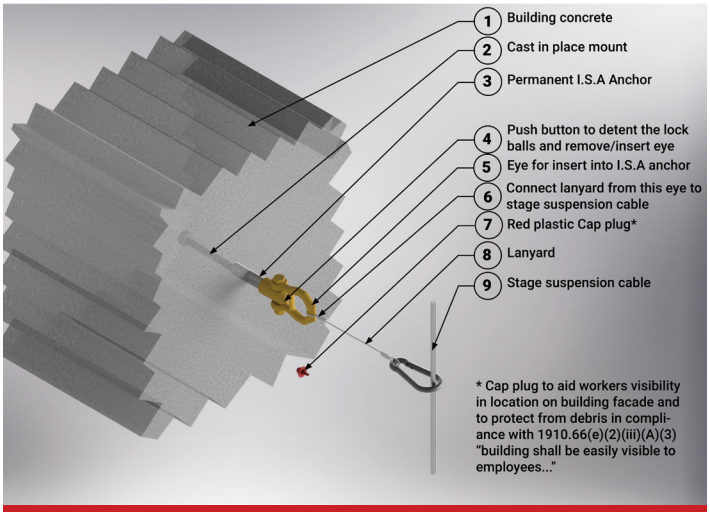


Figure 5: 3D view Cast in place ISA

Building Height Stabilization Requirements and Limitations

Stabilization is provided at the specific work location when the [rope] descent are greater than 130ft (39.6m) (OSHA Subpart D. Section 1910.27 section (b)(2)(x))

OSHA Subpart D 1910.66(e)

[permanently installed swing stage] System utilizing angulated roping and building face rollers. The system shall keep the equipment in continuous contact with the building facade and shall prevent sudden horizontal movement of the platform. This system is acceptable only where the suspended portion of the equipment in use does not exceed 130 feet (39.6 m) above a safe surface or ground level, and where the platform maintains no less than 10 pounds (44.4 n) angulation force on the building facade.
(OSHA 1910.66(e)(2)(iii)(C))

If angulated roping is employed, tie-in guides required in paragraph (e)(2)(i) of this section may be eliminated for not more than 75 feet (22.9 m) of the uppermost elevation of the building, if infeasible due to exterior building design, provided an angulation force of at least 10 pounds (44.4 n) is maintained under all conditions of loading.
(OSHA 1910.66(e)(2)(ii))

Note: According to OSHA: Wind pressure effect on tall buildings is usually greatest at the top corners of a building. And the column effect of air on the exterior of a building increases with building heights. This uplifting wind tends to "dam up" under a platform and get between the platform and the building, moving the platform away from the building. From Federal Register Vol. 54, Number 144, page 31416.

ASME A120.1 2021/ANSI

"3.2.7.2 Powered Platforms shall not be ground rigged where the point of suspension exceeds 300 ft (92m) above a safe surface.

3.2.7 Height Restriction

3.2.7.1 Building with vertical platform travel exceeding 490 ft (150m) shall employ powered equipment with the hoists located at the roof level.

2.3.3.3 Angulated Roping. The equipment installation can use angulated roping with a stabilizing force of at least 10lb (4.5 kg) maintained under all conditions of loading where the rise of the suspending portion of the equipment does not exceed 130 ft (40m)"

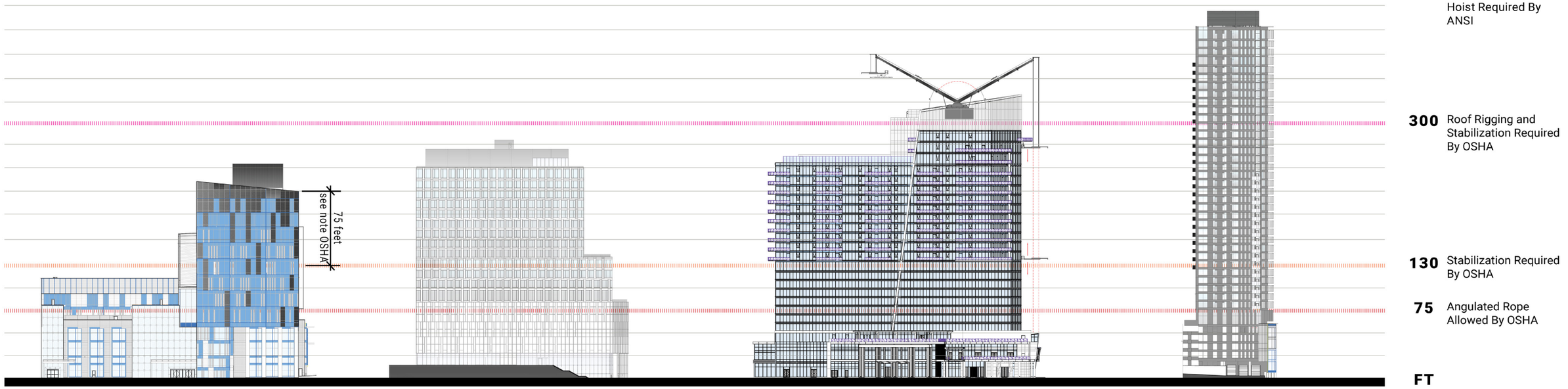
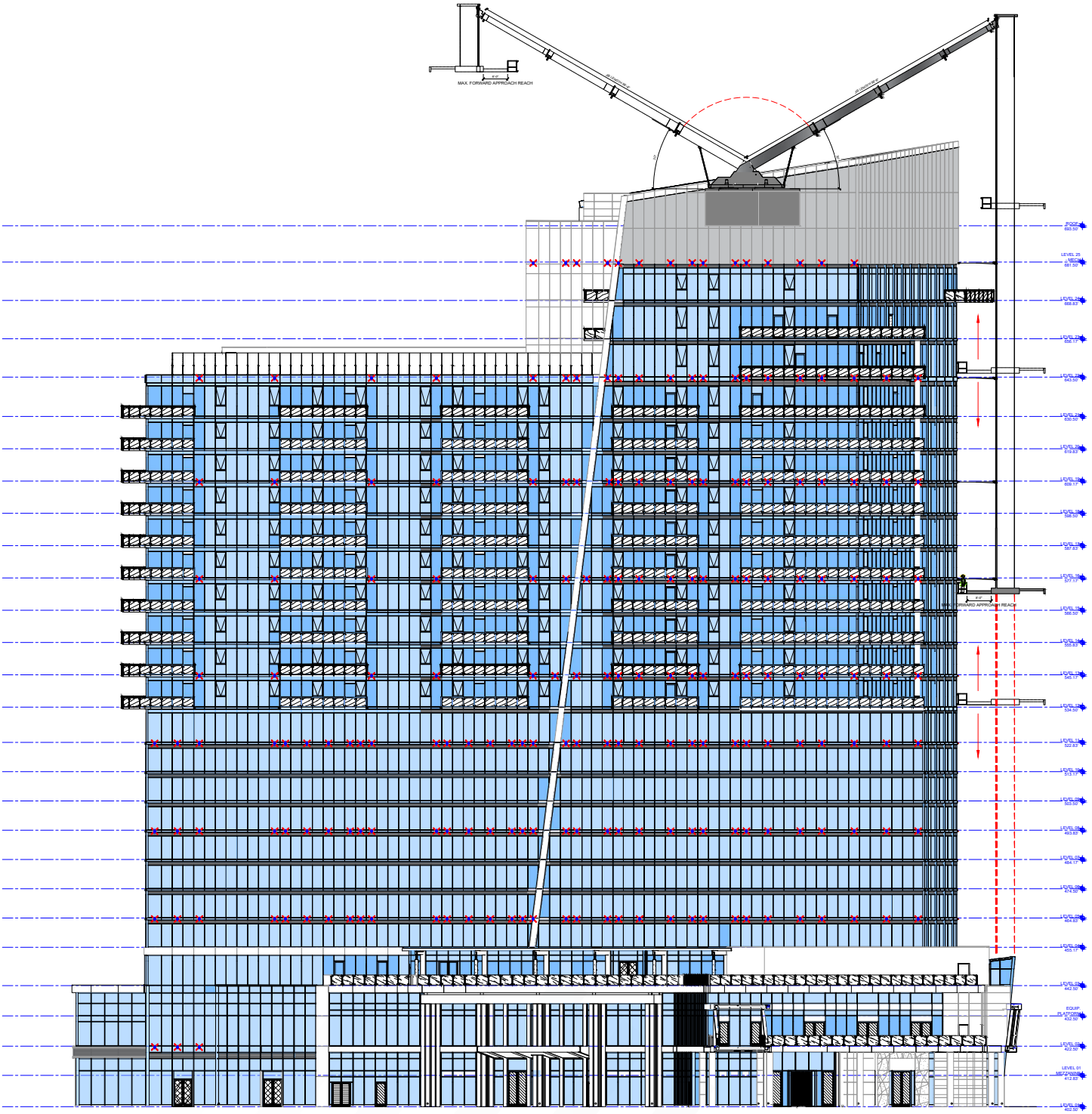


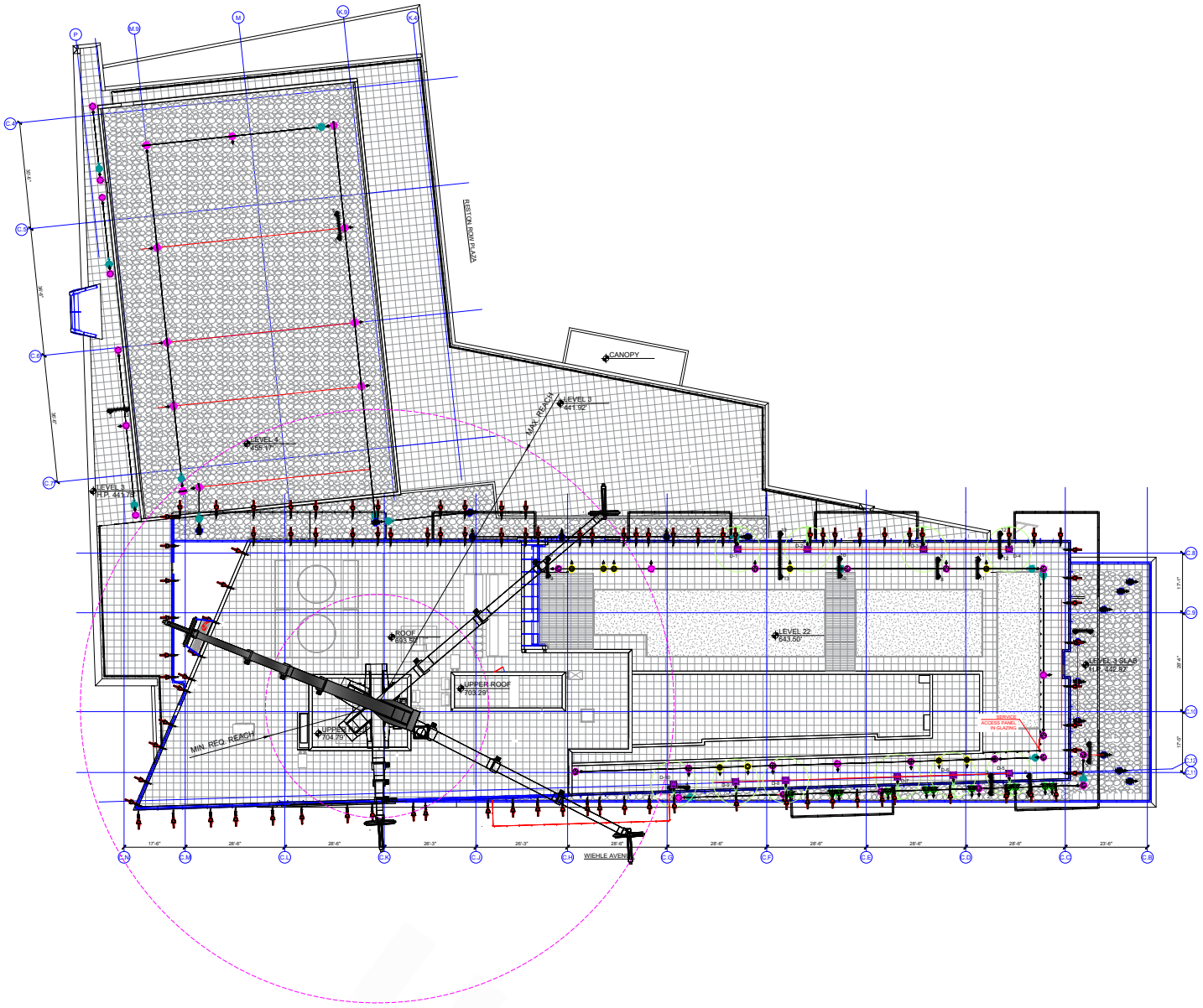
Figure 2: Height Restrictions for Buildings

Information extracted from : **Skyscraperpage.com** (https://skyscraperpage.com/diagrams/?buildingID=716); OSHA Subpart D - Walking and Working surfaces & ANSI Standard

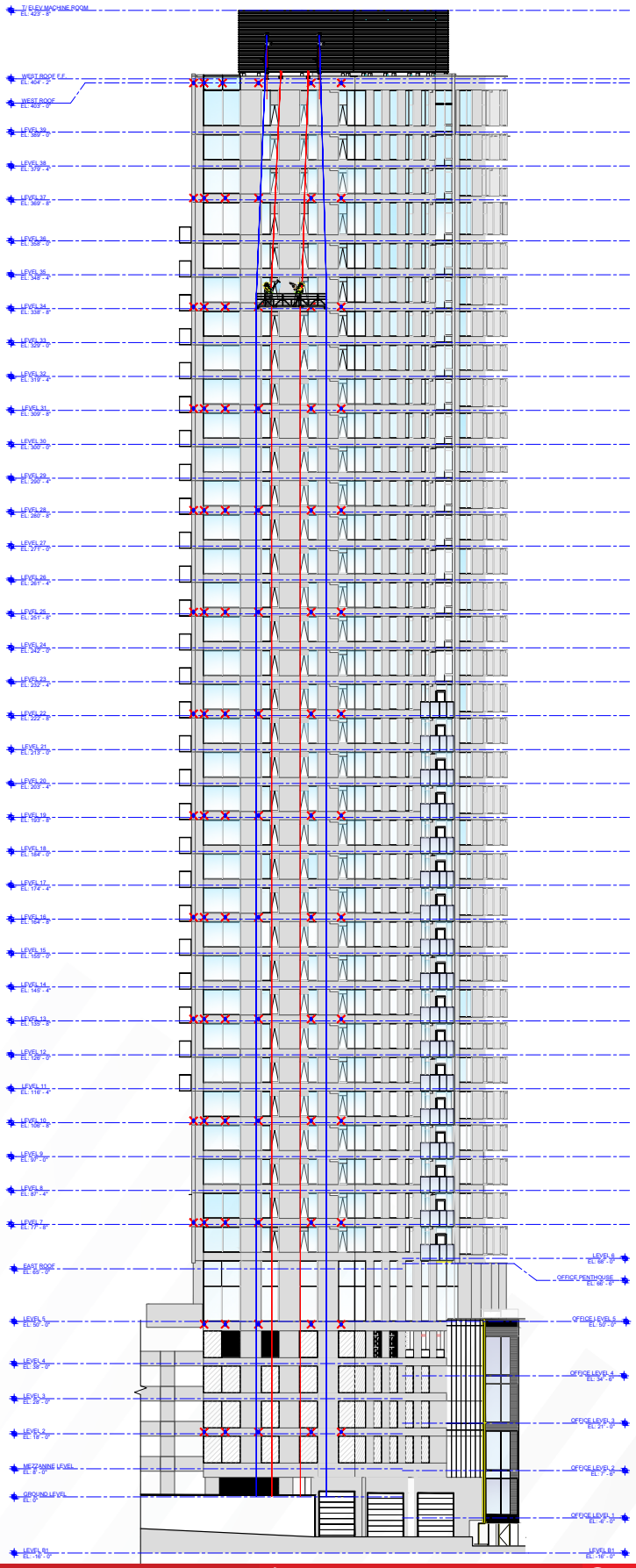
Reston Row Elevation



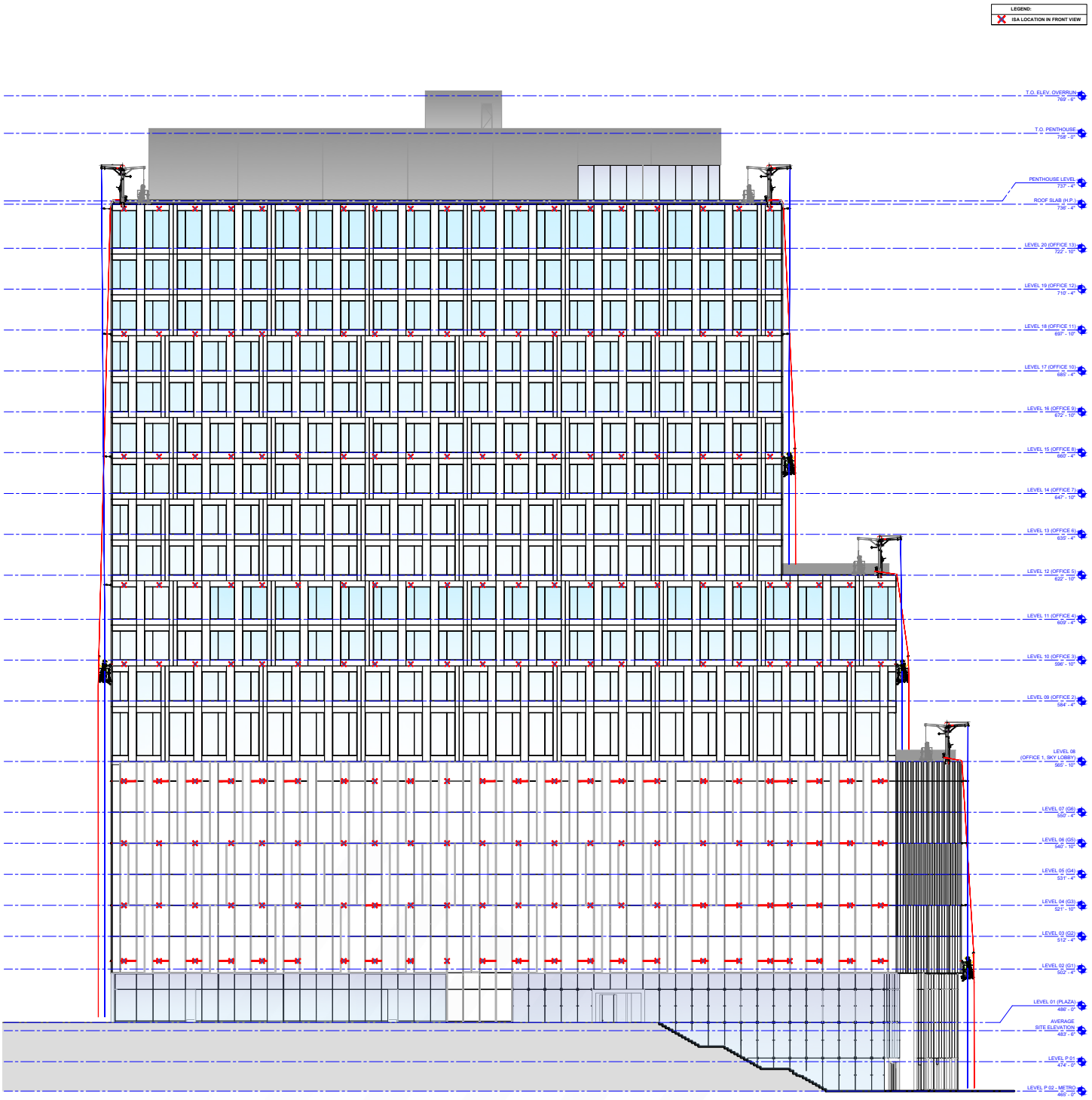
Reston Row Roof Plan



RTC Next Block 8 - Town Center Pkwy Reston



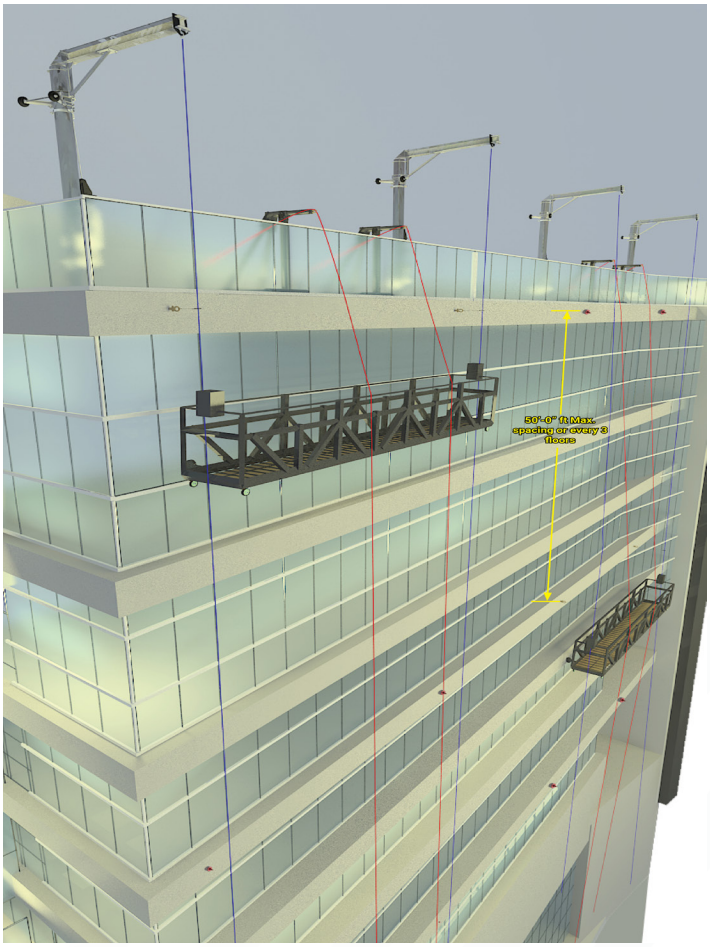
Tyson Central



OSHA requirements for Intermittent Stabilization Anchors for roof rigged platforms

Typically, the Intermittent Stabilization Anchors will be installed in pair at the top of the building in-line with the support system above, e.g.: davit bases, rigging sleeves, and outriggers. The location can be either between the platform or just outside the suspension ropes, but not both outside and inside the suspension ropes. The maximum vertical spacing for intermittent stabilization is three floors or 50 feet, whichever is less. See OSHA's requirement for Intermittent stabilization anchors.

1. "Intermittent stabilization system. The systems shall keep the equipment in continuous contact with the Building façade and shall prevent sudden horizontal movement of the platform. The system may be used together with continuous positive building guide systems using tie-in guides on the same building, provided the requirements for each system are met". (OSHA 1910.66 (e)(2)(iii)(A)).
2. "The maximum vertical interval between building anchors shall be three floors or 50 feet (15.3m), whichever is less. (OSHA 1910.66 (e)(2)(iii)(A)(1)).



ISA Layout for a roof rigged platform, using intermittent stabilization

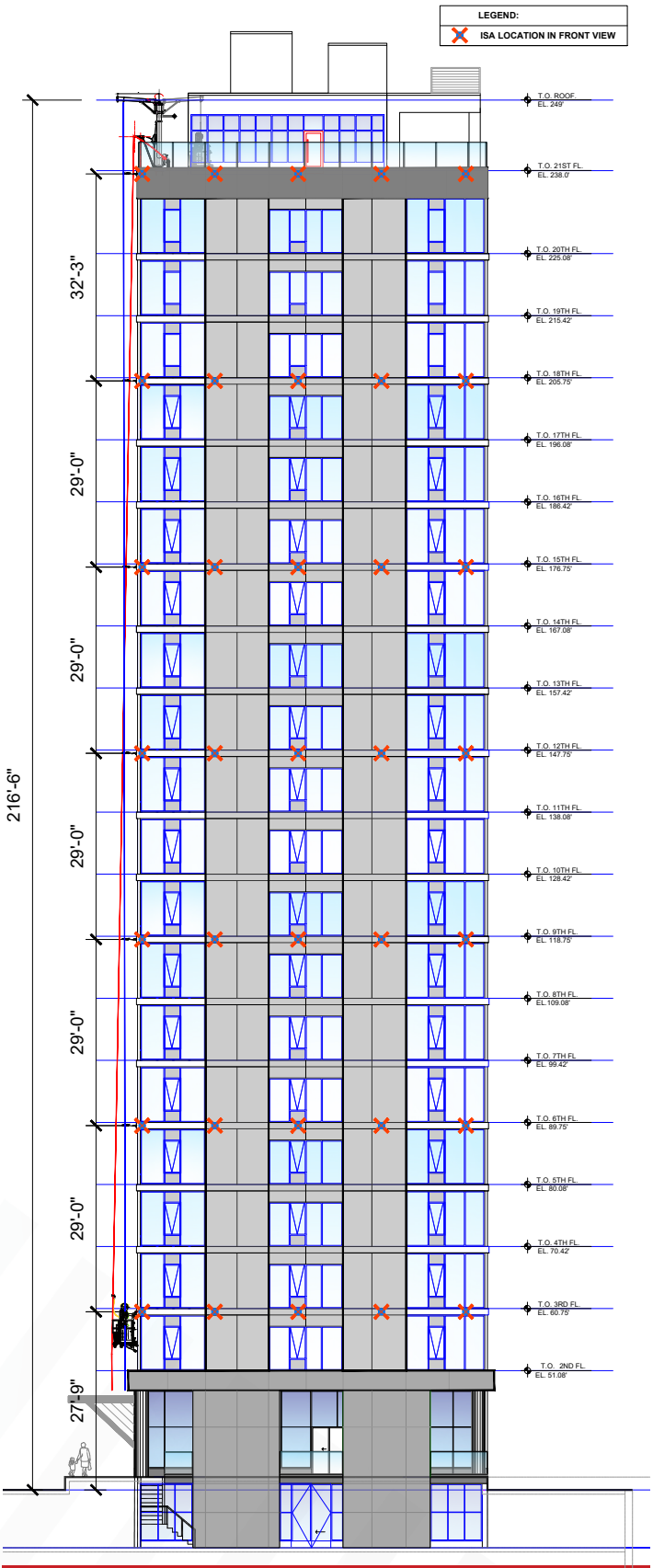


Figure 3: Building Elevation showing ISA Location every 3 foors

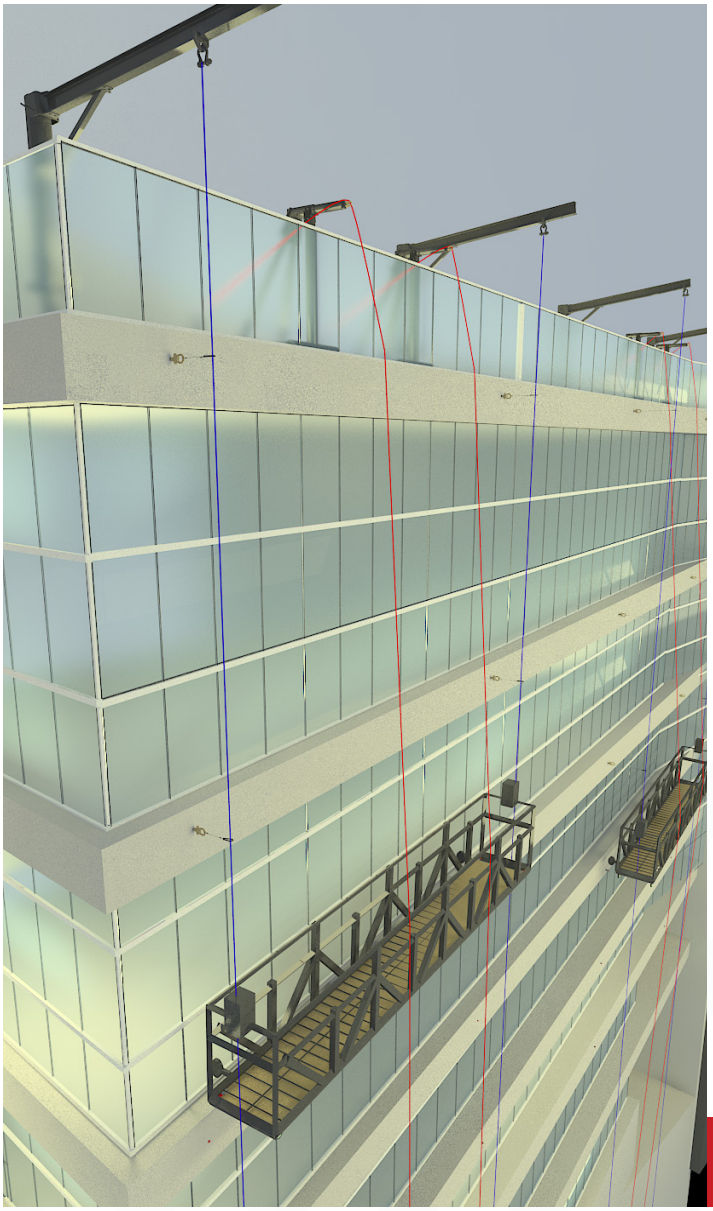
Work Station stabilization for ground rigged platforms

OSHA under the Standard Interpretation letter: Anchors required for two-point suspension scaffolds.

The Occupational Safety and Health Administration (OSHA) standards at 29 CFR 1910.28(g)(11) require that two point suspension scaffolds be securely lashed to the building to prevent swaying at each working level. Therefore, proper anchors are necessary a each stage drop for ground riggid platforms. See Figure 4

Occupational Safety and Health Administration. (1987) Standard Interpretations: Anchors required for two-point suspension scaffolds (OSHA Standard No. 1910.28).
United States Department of Labor.

https://www.osha.gov/lawsregs/standardinterpretations/1987-07-16



ISA Layout for ground a rigged platform, using work station stabilization

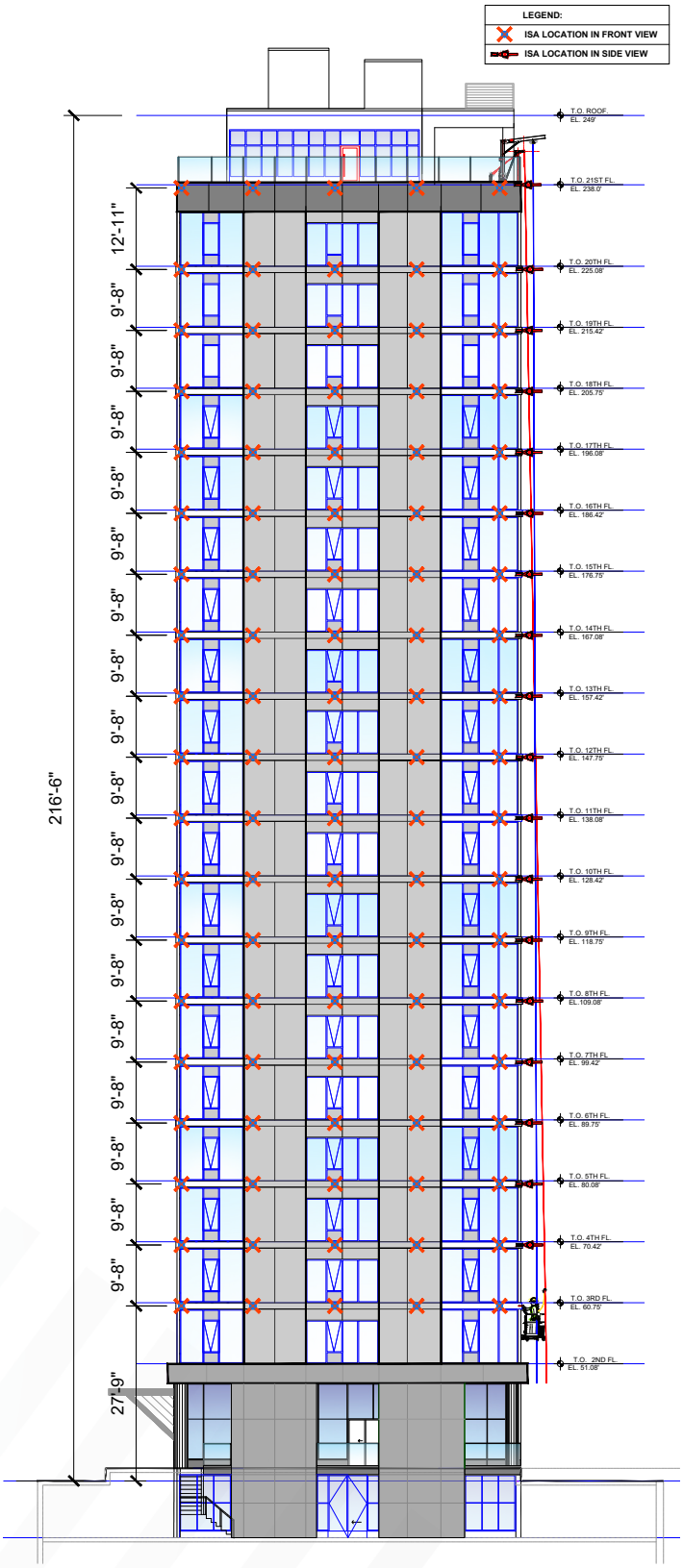


Figure 4: Building Elevation showing ISA locations at each floor.

3. Intermittent Stabilization Anchors at Window Mullions for sloped inward walls

Left side (red dots) showing Intermittent Stabilization anchors at every three floor or 50ft whichever is less, Right side (green dots) showing Intermittent stabilization anchors at every floor on sloped inward walls to keep the swing stage in continuous contact with the building façade.

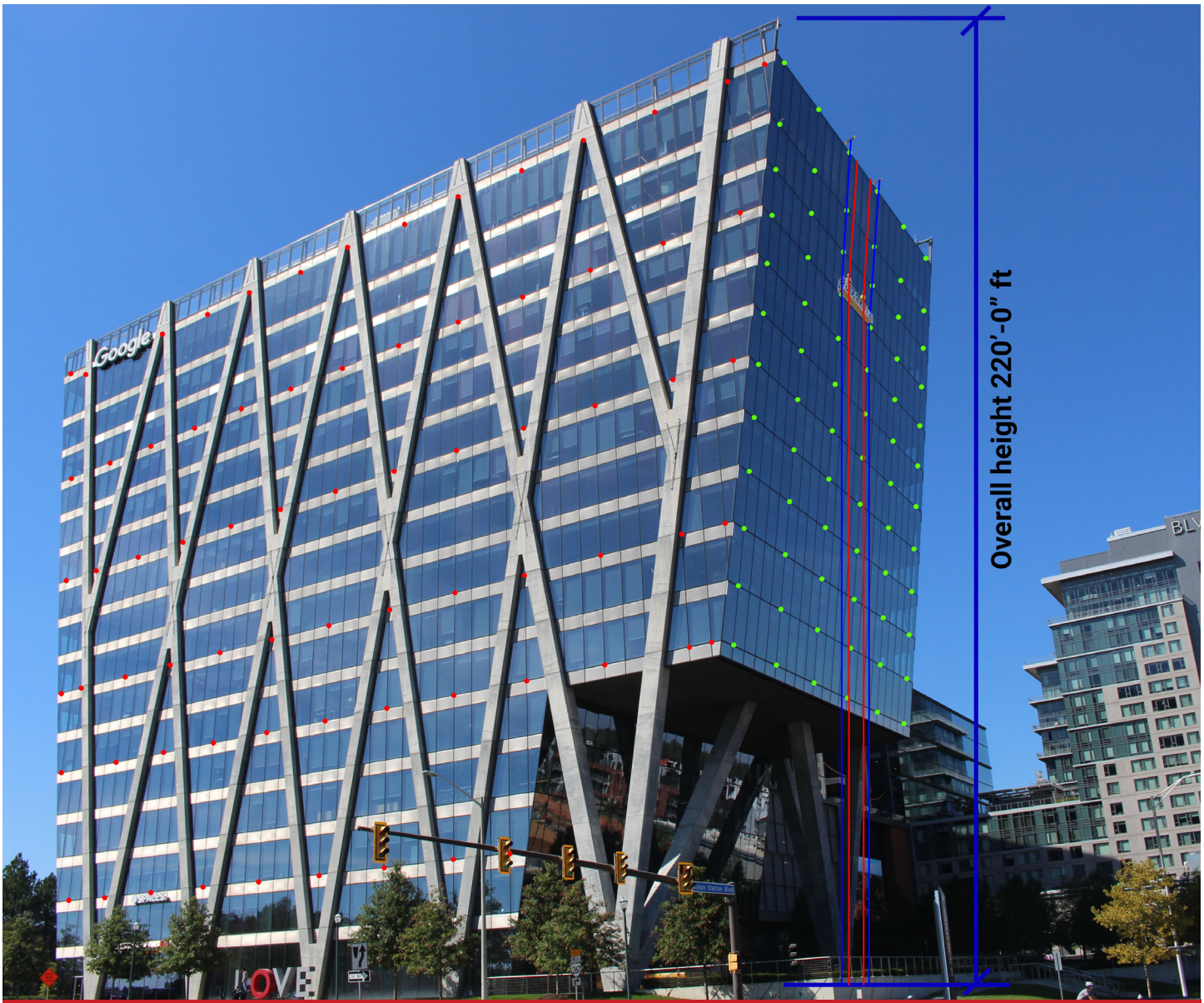
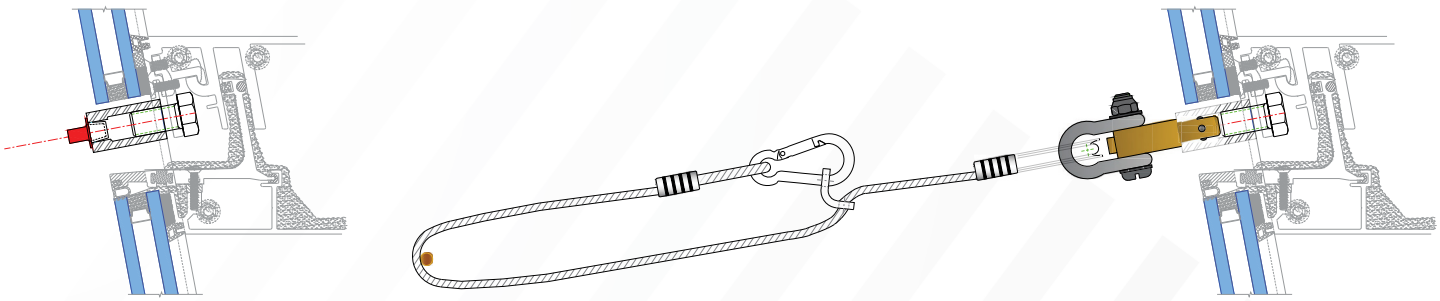


Figure 7: Actual Building showing locations of Intermittent stabilization anchors



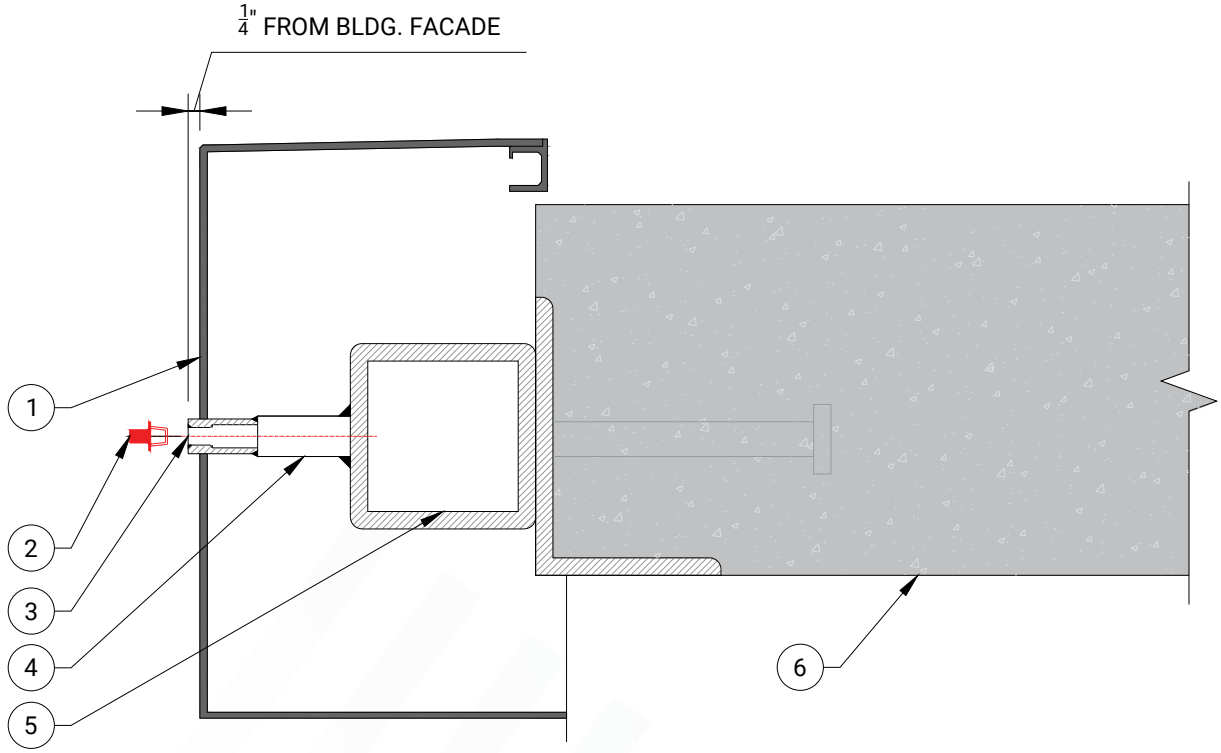
INTERMITTENT STABILIZATION ELEVATION ANCHOR LAYOUT ON SLOPED INWARD WALLS EVERY FLOOR

Single Intermittent Stabilization System with Welded Stud to Steel Angle connection

ISA LOADING REQUIREMENTS:
150 LB. WORKING LOAD LIMIT
300 LB. PROOF LOAD LIMIT
600 LB. ULTIMATE LOAD WITHOUT DETACHMENT

LOAD MAY BE APPLIED IN ANY DIRECTION

1. ACM PANEL BUILDING FACADE
2. TAPPED CAPLUG, TO KEEP DEBRIS OUT
3. ISA INSERTION POINT 3/4" Ø
4. 7/8"Ø x 2" LONG NELSON STUD
5. 4"x4"x3/8" HSS, WELDED TO 6" X 4" X 3/8" STEEL ANGLE
6. CONCRETE SLAB



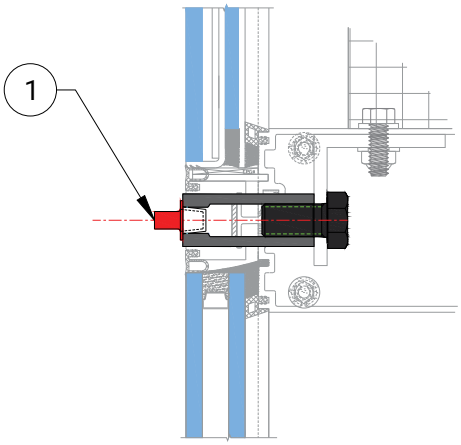
ACM PANEL INTERMITTENT STABILIZATION ANCHOR

Curtain Wall Mullion Façade

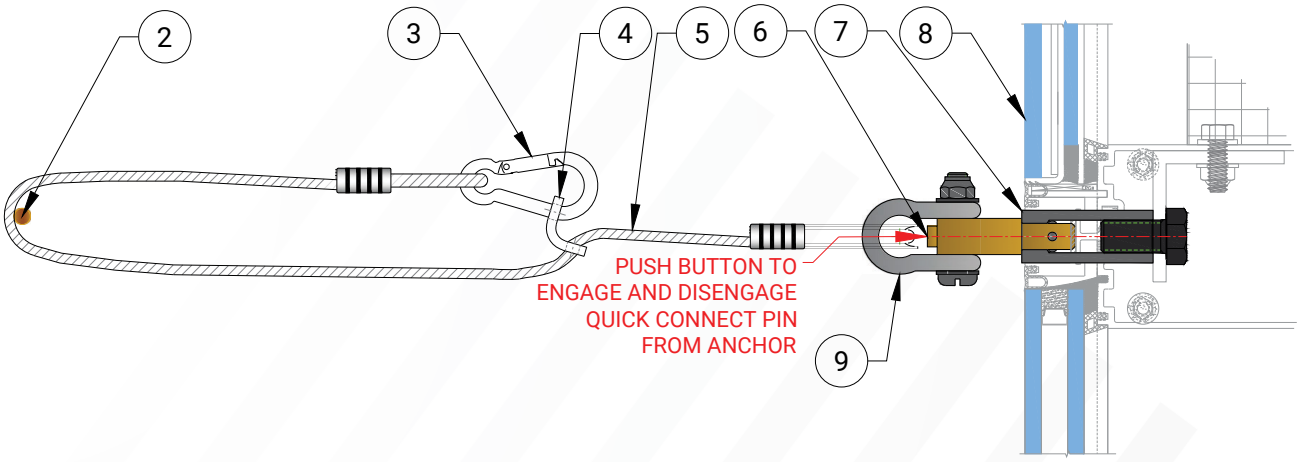
ISA LOADING REQUIREMENTS:
150 LB. WORKING LOAD LIMIT
300 LB. PROOF LOAD LIMIT
600 LB. ULTIMATE LOAD WITHOUT DETACHMENT

LOAD MAY BE APPLIED IN ANY DIRECTION

1. TAPPED CAPLUG, TO KEEP DEBRIS OUT
2. STAGE SUSPENSION CABLE 5/16" Ø
3. SPRING SNAP HOOK CARABINER
4. LANYARD LENGTH ADJUSTER
5. LANYARD USED TO ATTACH TO THE SUSPENSION
6. PUSH BUTTON TO DISENGAGE FROM ANCHOR
7. PERMANENT I.S.A. MOUNTING BLOCK
8. GLAZING
9. QUICK CONNECT PIN ASSEMBLY



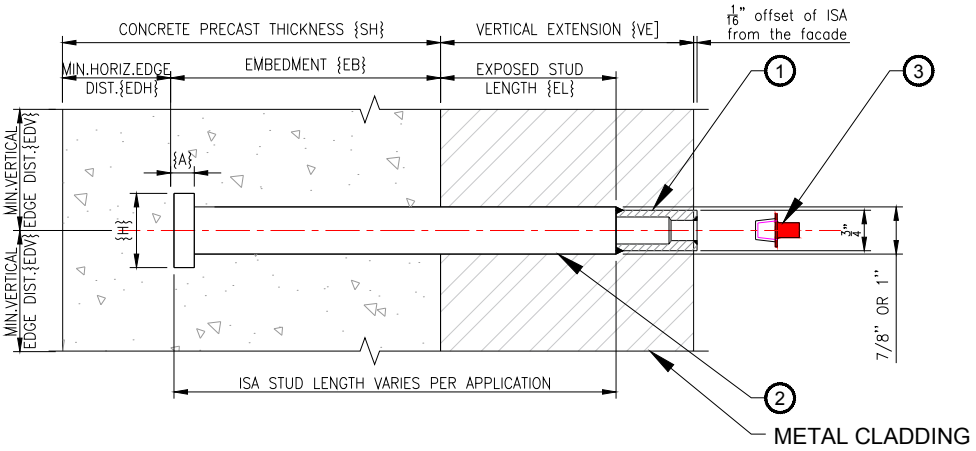
INTERMITTENT STABILIZATION ANCHOR
WHEN NOT IN USE



INTERMITTENT STABILIZATION ANCHOR
IN USE

Deails for Stabilization Anchors

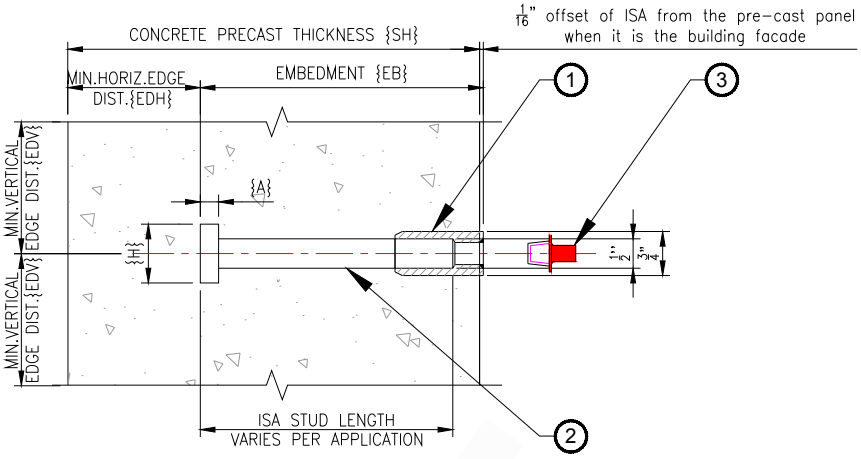
1. Cast In place with Extension



1. **ISA INSERTION POINT:** 3/4" DIA, LENGTH CAN VARY
2. **NELSON STUD:** 1/2", 7/8", 1" DIA, LENGTH CAN VARY
3. **SM-ANC-PLG-CPT2X:** TAPPED CAPLUG, SIZE #CTP2X TO KEEP OUT DEBRIS

MATERIAL DESIGNATION:
- **ALL INSERTION POINTS : 304 STAINLESS**
- **ALL NELSON STUDS: C1015**
- **WELD WIRE: E309**

2. Cast In place Flush with Precast



Summit Anchor Model
SM - ISA - XX - X

SM = Summit Anchor Model
ISA = Intermittent Stabilization Anchor
XX = Diameter of ISA
X = Total Length of ISA

SUMMIT STANDARD								
Model	**Nelson Stud Dia (Length varies)**	**Nelson Stud Dim {A}**	**Nelson Stud Dim {H}**	**Min. Embedment Depth {EB}**	**Min. Precast Thickness {SH}**	**Min. Vertical Edge Distance {EDV}**	**Min. Horizontal Edge Distance {EDH}**	**Maximum Exposed ISA Stud Length {EL}**
SM-ISA-04-4 SM-ISA-04-5 SM-ISA-04-6	1/2"	.312	1.00	4,000-DHC 5,000-DHC 6,000- 4-11/16"	4,000-DHC 5,000-DHC 6,000- 6.00	12"	1"	DHC
SM-ISA-06-4 SM-ISA-06-5 SM-ISA-06-6	7/8"	.375	1.375	4,000-DHC 5,000-DHC 6,000- DHC	4,000-DHC 5,000-DHC 6,000- DHC	DHC	1" (DHC TO CHECK)	DHC
SM-ISA-07-4 SM-ISA-07-5 SM-ISA-07-6	1"	.500	1.625	4,000-DHC 5,000-DHC 6,000- DHC	4,000-DHC 5,000-DHC 6,000- 11.00	DHC	DHC	7" (DHC TO CHECK)

Table 1: Requirements for Intermittent Stabilizations Anchors Cast in Place

**Design above assumed normal weight concrete is being used for all slab thicknesses

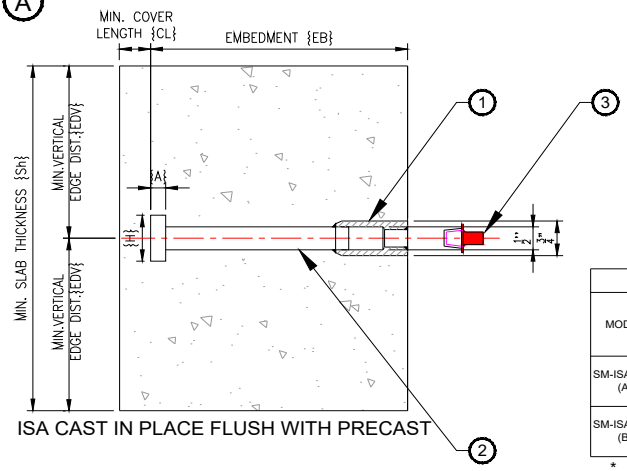
Summit Anchor Company Inc.
4507 Metropolitan Ct., Suite F
Frederick, MD 21704
Tel: 301.874.4941, Fax: 301.620.9819
Toll Free: 800.372.1098
Web: www.summitanchor.com

INTERMITTENT STABILIZATION CAST IN PLACE ANCHOR

1. **ISA INSERTION POINT:** 3/4" DIA, 1-1/2" LONG
2. **NELSON STUD:** 1/2" DIA, 5" LONG
3. **SM-ANC-PLG-CPT2X:** TAPERED CAPLUG, SIZE #CTP2X TO KEEP OUT DEBRIS

ISA ANCHOR LOAD REQUIREMENTS
150 LB WORKING LOAD LIMIT
300 LB PROOF LOAD LIMIT
600 LB ULTIMATE LOAD WITHOUT DETACHMENT
— IN ANY DIRECTION LOAD MAY BE APPLIED

A



ISA CAST IN PLACE FLUSH WITH PRECAST

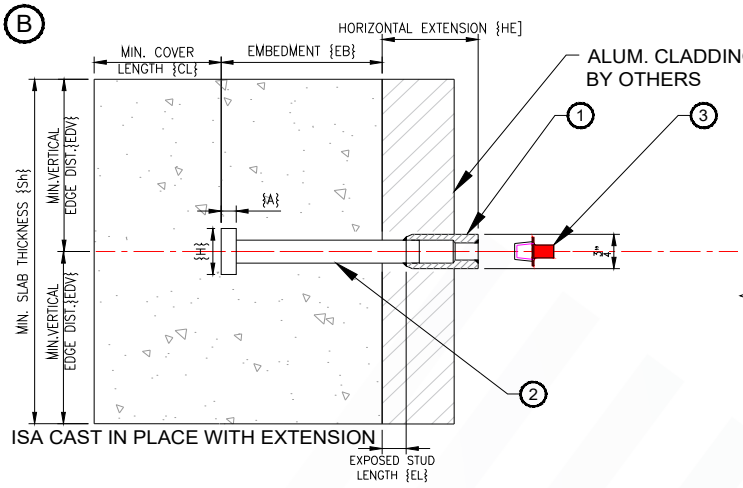
PROJECT INFORMATION:
- **7-1/2" MIN. SLAB THICKNESS**
- **6000 PSI CONCRETE STRENGTH**
- **POST TENSIONED SLAB**
- **NORMAL WEIGHT CONCRETE**
- **STRUCTURAL EOR TO VERIFY THE NORMAL WEIGHT CONCRETE COMPRESSIVE STRENGTH PRIOR TO USE**

SUMMIT STANDARD

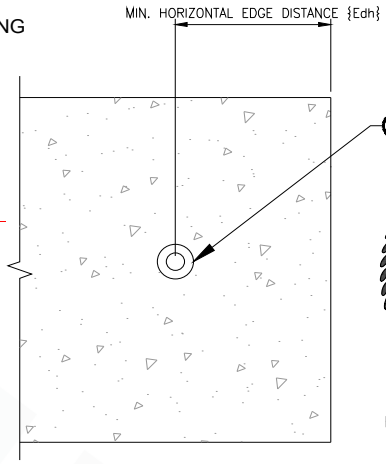
MODEL	NELSON STUD DIA (LENGTH VARIES)	NELSON STUD DIM. {A}	NELSON STUD HEAD DIA. {H}	MIN. EMBEDMENT DEPTH {EB}	MIN. CONCRETE COVER LENGTH {CL}	MIN. SLAB THICKNESS {SH}	MIN. VERTICAL EDGE DISTANCE {EDV}	MIN. HORIZONTAL EDGE DISTANCE {EDH}	MAX. EXPOSED ISA STUD LENGTH {EL}	MAX. HORIZONTAL EXTENSION {He}
SM-ISA-04-7 (A)	1/2"	.3125"	1.00"	5"	1"	7-1/2"	3-3/4"	12"	/	/
SM-ISA-04-7 (B)	1/2"	.3125"	1.00"	3"	1"	7-1/2"	3-3/4"	12"	1/2"	2"

* LOCAL AND GLOBAL ADEQUACY OF STRUCTURE SHALL BE VERIFIED BY OTHERS

B



ISA CAST IN PLACE WITH EXTENSION



Jasper Calcara
Digitally signed by Jasper Calcara
Date: 2020.05.05 15:17:17 -07'00'

JASPER BARON CALCARA
99745
LICENSED PROFESSIONAL ENGINEER
Firm No. F-3891
D.H. Charles Engineering, Inc.

THE ENGINEERS SEAL INDICATES ONLY THAT THE EQUIPMENT SUPPLIED BY SUMMIT ANCHOR Co., SPECIFIED ON THIS DRAWING, WILL WITHSTAND THE LOADS INDICATED ON THIS DRAWING WHEN ANALYZED BY CONVENTIONAL ENGINEERING METHODS OR, HAS BEEN LAB TESTED FOR THE INDICATED LOADS. IT IN NO WAY REPRESENTS ENGINEERING ASSOCIATED WITH THE EXISTING BUILDING AND DESIGN OF THE EQUIPMENT LAYOUT.

NOTES:

A. SUMMIT ANCHOR CO. ANCHORS ARE MANUFACTURED TO SUPPORT THE LOADS INDICATED BELLOW:
   a) 150 LB WORKING LOAD
   b) 300 LB PROOF LOAD LIMIT
   c) 600 LB ULTIMATE LOAD WITHOUT DETACHMENT
B. USE CAUTION IF THE CONCRETE IS TO BE ACID WASHED (IE: MURATIC ACID). CARE SHOULD BE TAKEN TO AVOID DISCOLORING THE STAINLESS, AND IT, IN TURN, BLEMISHING THE CONCRETE. HALOGENS SUCH US CHLORINE, IODINE, ETC. WILL ATTACK T304 STAINLESS STEEL. OPTIONAL WGS No. 409-316 ANCHORS SHOULD BE USED.
C. DETENT PIN RECEPTACLE TYPE: LOCATE RECEPTACLE EVERY THIRD FLOOR OR 15 METERS (49 Ft) WHICHEVER IS LESS WITH PLATFORM SUSPENSION POINTS.
D. RECEPTACLES TO BE STAINLESS STEEL OR OTHER CORROSION RESISTANT MATERIAL.
E. DETENT PIN HANDLES WITH SPRING LOADED BALL LOCK, TO SUIT BUILDING FACADE.
F. INCLUDE SUFFICIENT QUANTITY OF ADJUSTABLE STAINLESS STEEL STABILIZER TIES.
G. STABILIZATION COMPONENTS SUCH AS TIE-IN GUIDES-BUTTONS/DETENT PINS SHALL BE RATED FOR A 600 LBS ULTIMATE LOAD APPLIED IN ANY DIRECTION WITHOUT DETACHMENT
H. CONNECTING HARDWARE TO BE MADE OF STAINLESS STEEL OR HOT-DIPPED GALVANIZED STEEL.

MATERIAL DESIGNATION:
- **ALL INSERTION POINTS : 304 STAINLESS**
- **ALL NELSON STUDS: C1015**
- **WELD WIRE: E309L WITH A MINIMUM TENSILE STRENGTH OF 70 KSI**

JOB #: 01540	
APPROVALS	
DRAWN BY: DJ.M.	DATE: 05-04-20
CHECKED BY: G.S.	DATE:
SALES:	DATE:
CUSTOMER:	DATE:
SHOP:	DATE:

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4507 Metropolitan Ct., Suite F
Frederick, MD 21704
Tel: 301.874.4941
Fax: 301.620.9819
Toll Free: 800.372.1098
Web: www.summitanchor.com

PROJECT: 12th Street Residences
1109 N. IH-35 SVRD NB, AUSTIN TEXAS

DRAWING NO.	PLOT SCALE: 1:1
SM-ISA-CIP A-1	PAGE NO. 1 of 1

Summit Anchor Company Inc.

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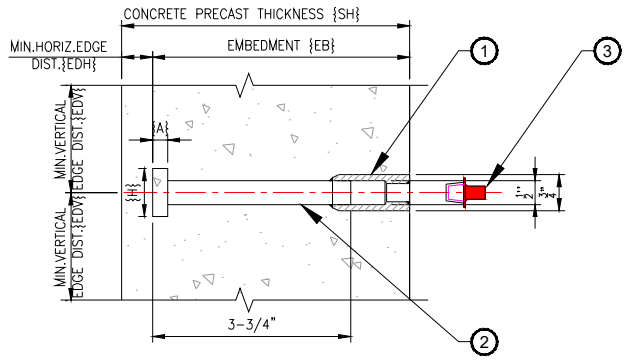
INTERMITTENT STABILIZATION CAST IN PLACE ANCHOR

1. **ISA INSERTION POINT:** 3/4" DIA, 1-5/8" LONG
2. **NELSON STUD:** 1/2" DIA, 3-3/4" LONG
3. **SM-ANC-PLG-CPT2X:** TAPPED CAPLUG, SIZE #CTP2X TO KEEP OUT DEBRIS

ISA ANCHOR LOAD REQUIREMENTS
150 LB WORKING LOAD LIMIT
300 LB PROOF LOAD LIMIT
600 LB ULTIMATE LOAD WITHOUT DETACHMENT
— IN ANY DIRECTION LOAD MAY BE APPLIED



ISA CAST IN PLACE FLUSH WITH PRECAST

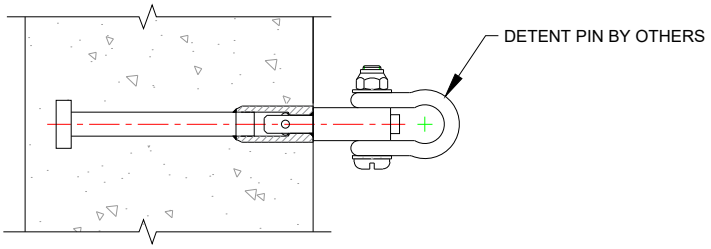
SUMMIT STANDARD

MODEL	NELSON STUD DIA (LENGTH VARIES)	NELSON STUD DIM. {A}	NELSON STUD DIM. {H}	MIN. EMBEDMENT DEPTH {EB}	MIN. PRECAST THICKNESS {SH}	MIN. VERTICAL EDGE DISTANCE {EDV}	MIN. HORIZONTAL EDGE DISTANCE {EDH}
SM-ISA	1/2"	.312	1.00	4-11/16"	6"	12"	1"

* LOCAL AND GLOBAL ADEQUACY OF STRUCTURE SHALL BE VERIFIED BY OTHERS

PROJECT INFORMATION:

- **6" PRECAST THICKNESS**
- **6000 PSI CONCRETE STRENGTH**
- **NORMAL WEIGHT CONCRETE**
- **STRUCTURAL EOR TO VERIFY THE NORMAL WEIGHT CONCRETE COMPRESSIVE STRENGTH PRIOR TO USE**



ISA CAST IN PLACE FLUSH WITH PRECAST CONCRETE PANEL

NOTES:

A. SUMMIT ANCHOR CO. ANCHORS ARE MANUFACTURED TO SUPPORT THE LOADS INDICATED BELLOW:

   a) 150 LB WORKING LOAD
   b) 300 LB PROOF LOAD LIMIT
   c) 600 LB ULTIMATE LOAD WITHOUT DETACHMENT

B. USE CAUTION IF THE CONCRETE IS TO BE ACID WASHED (IE: MURATIC ACID). CARE SHOULD BE TAKEN TO AVOID DISCOLORING THE STAINLESS, AND IT, IN TURN, BLEMISHING THE CONCRETE. HALOGENS SUCH US CHLORINE, IODINE, ETC. WILL ATTACK T304 STAINLESS STEEL. OPTIONAL WGS No. 409-316 ANCHORS SHOULD BE USED.

C. DETENT PIN RECEPTACLE TYPE: LOCATE RECEPTACLE EVERY THIRD FLOOR OR 15 METERS WHICHEVER IS LESS WITH PLATFORM SUSPENSION POINTS.

D. RECEPTACLES TO BE STAINLESS STEEL OR OTHER CORROSION RESISTANT MATERIAL.

E. DETENT PIN HANDLES WITH SPRING LOADED BALL LOCK, TO SUIT BUILDING FACADE.

F. INCLUDE SUFFICIENT QUANTITY OF ADJUSTABLE STAINLESS STEEL STABILIZER TIES.

G. STABILIZATION COMPONENTS SUCH AS TIE-IN GUIDES-BUTTONS/DETENT PINS SHALL BE RATED FOR A 600 LBS ULTIMATE LOAD APPLIED IN ANY DIRECTION WITHOUT DETACHMENT

H. CONNECTING HARDWARE TO BE MADE OF STAINLESS STEEL OR HOT-DIPPED GALVANIZED STEEL.

Luke Griffis
Digitally signed by Luke Griffis
Date: 2020.03.13 16:23:13 -07'00'

NORTH CAROLINA PROFESSIONAL SEAL 036982 ENGINEER LUKE R. GRIFFIS

Firm No. C-2701

THE ENGINEERS SEAL INDICATES ONLY THAT THE EQUIPMENT SUPPLIED BY SUMMIT ANCHOR Co., SPECIFIED ON THIS DRAWING, WILL WITHSTAND THE LOADS INDICATED ON THIS DRAWING WHEN ANALYZED BY CONVENTIONAL ENGINEERING METHODS OR, HAS BEEN LAB TESTED FOR THE INDICATED LOADS. IT IN NO WAY REPRESENTS ENGINEERING ASSOCIATED WITH THE EXISTING BUILDING AND DESIGN OF THE EQUIPMENT LAYOUT.

MATERIAL DESIGNATION:

- **ALL INSERTION POINTS : 304 STAINLESS**
- **ALL NELSON STUDS: C1015**
- **WELD WIRE: E309L**

JOB #: 01512
APPROVALS
DRAWN BY: D.M. DATE: 11-03-20
CHECKED BY: G.S. DATE:
SALES: DATE:
CUSTOMER: DATE:
SHOP: DATE:

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PROJECT: PROJECT 125
100 WEST WORTHINGTON AVE CHARLOTTE NC 28203

DRAWING NO.: SM-ISA-CIP A-1
PLOT SCALE: 1:1
PAGE NO. 1 of 1

INTERMITTENT STABILIZATION FOR GLAZING

Summit Anchor Company Inc.

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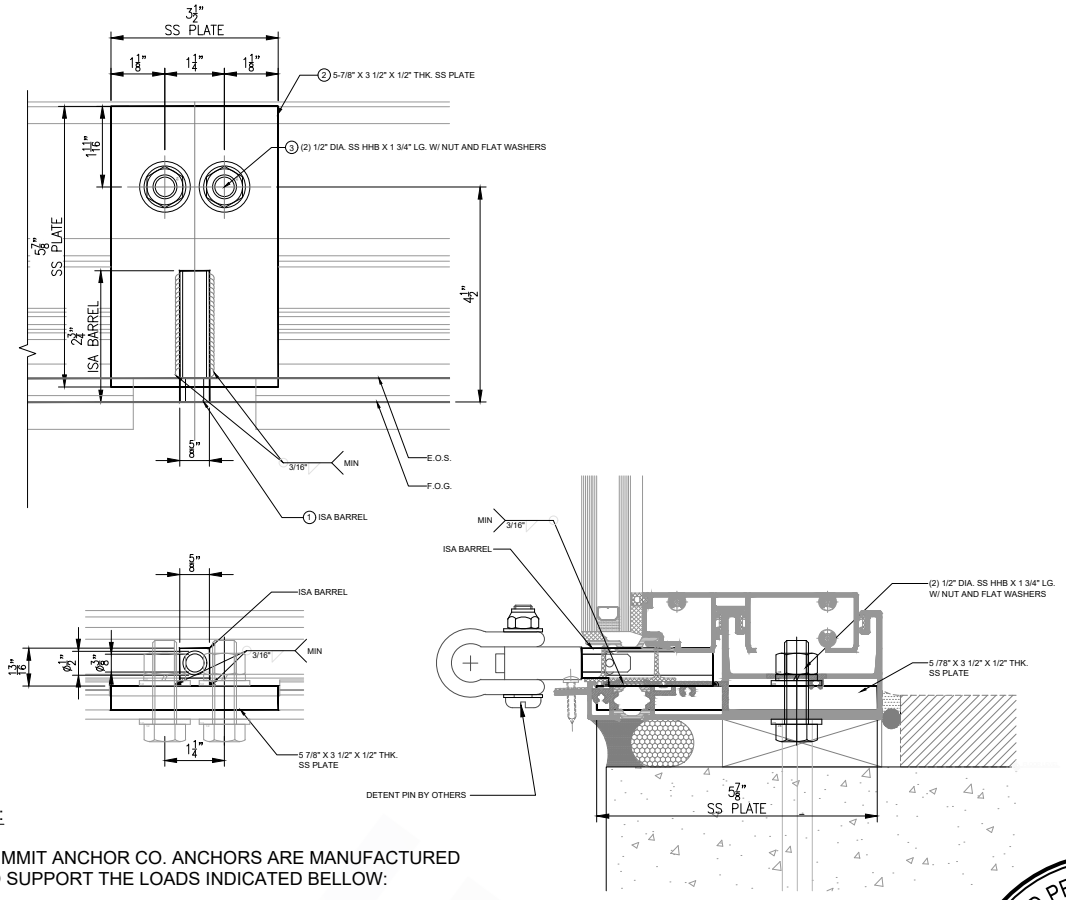
ISA ANCHOR LOAD REQUIREMENTS
150 LB WORKING LOAD LIMIT
300 LB PROOF LOAD LIMIT
600 LB ULTIMATE LOAD WITHOUT DETACHMENT
— IN ANY DIRECTION LOAD MAY BE APPLIED

1. **ISA INSERTION POINT:** 13/16" x 5/8", 2-3/4" LONG
2. **PLATE:** 3-1/2"x5-7/8"x1/2" STAINLESS STEEL PLATE
3. ½" Ø X 1-3/4"LONG STAINLESS STEEL FASTENER W/ NUT AND FLAT WASHERS



NOTES:

A. SUMMIT ANCHOR CO. ANCHORS ARE MANUFACTURED TO SUPPORT THE LOADS INDICATED BELLOW:

   a) 150 LB WORKING LOAD
   b) 300 LB PROOF LOAD LIMIT
   c) 600 LB ULTIMATE LOAD WITHOUT DETACHMENT

B. USE CAUTION IF THE CONCRETE IS TO BE ACID WASHED (IE: MURATIC ACID). CARE SHOULD BE TAKEN TO AVOID DISCOLORING THE STAINLESS, AND IT, IN TURN, BLEMISHING THE CONCRETE. HALOGENS SUCH US CHLORINE, IODINE, ETC. WILL ATTACK T304 STAINLESS STEEL. OPTIONAL WGS No. 409-316 ANCHORS SHOULD BE USED.

C. DETENT PIN RECEPTACLE TYPE: LOCATE RECEPTACLE EVERY THIRD FLOOR OR 15 METERS WHICHEVER IS LESS WITH PLATFORM SUSPENSION POINTS.

D. RECEPTACLES TO BE STAINLESS STEEL OR OTHER CORROSION RESISTANT MATERIAL.

E. DETENT PIN HANDLES WITH SPRING LOADED BALL LOCK, TO SUIT BUILDING FACADE.

F. INCLUDE SUFFICIENT QUANTITY OF ADJUSTABLE STAINLESS STEEL STABILIZER TIES.

G. STABILIZATION COMPONENTS SUCH AS TIE-IN GUIDES-BUTTONS/DETENT PINS SHALL BE RATED FOR A 600 LBS ULTIMATE LOAD APPLIED IN ANY DIRECTION WITHOUT DETACHMENT

H. CONNECTING HARDWARE TO BE MADE OF STAINLESS STEEL OR HOT-DIPPED GALVANIZED STEEL.

08/07/2022

MATERIAL DESIGNATION:
- **ALL INSERTION POINTS : 304 STAINLESS**
- **WELD WIRE: E308**
- **ALL PLATES: 304 STAINLESS**

JOB #: 01736			
APPROVALS			
DRAWN BY: DJ.M.	DATE: 07-29-22		
CHECKED BY: G.S.	DATE:		
SALES:	DATE:		
CUSTOMER:	DATE:		
SHOP:	DATE:		

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PROJECT: TASMAN
SANTA CLARA, CA

DRAWING NO.	PLOT SCALE: 1:1
SM-ISA-CUS A-1	PAGE NO. 1 of 1

References

Applicable Regulations and Standards

A120.1, A. (2022). Safety Requirements for Powered Platforms and Traveling Ladders and Gantries for Building Maintenance. New York: The American Society of Mechanical Engineers.

I.14.1, T. I. (2001). Window Cleaning Safety Standard.

IBC. (n.d.). The International Building International Code as application to jurisdiction.

Subpart I, 2. C. (n.d.). OSHA's Walking-Working Surfaces Standard.

Subpart D, 2. C. (n.d.). OSHA's Walking-Working Surfaces Standard.

Z359, A. (n.d.). Safety Requirements for Rope Access Systems.

Z359, A. (n.d.). Fall Protection Code Package.

5, C. A. (n.d.). Cal/OSHA. California.

NYDL. (n.d.). Title 12. New York.

Sequence	**Intermittent Stabilization System for Ground Rigging a Platform - Recommended Sequence of Design SOP**
1	Locate the ISAs in-line vertically below the intended point of suspension of the platform, typically below Davit Bases or below other support equipment such as davits, rigging sleeves and outriggers, etc.
2	Locate the ISAs in pairs, horizontally level and perpendicular to the intended point of connection to cable(s) of the platform. The ISAs must be located in a vertical line with the intended suspension point of the platform.
3	Note: If ISAs are offset, either inboard or outboard of the intended suspension point of the platform, the ISAs must be offset either outboard or inboard of the intended suspension cables of the platform.

Check Off	**Intermittent Stabilization System for Ground Rigging a Platform- Design Check-Off**
☐	Are all the ISAs located vertically in-line at each work station?
☐	Are all the ISAs pairs at spaced either 1) In-line, or 2) simultaneously inboard, or 3) simultaneously outboard of the intended point of suspension of the wire ropes of the suspended platform?
☐	Are they spaced vertically in-line at each work station?
☐	Are the intermittent stabilization anchor at each horizontal location located either inboard or outboard of the projected wire ropes of the suspended platform?

Sequence	**Intermittent Stabilization System for Roof Rigging a Platform - Recommended Sequence of Design SOP**
1	Locate the ISAs in-line vertically below the intended point of suspension of the platform, typically below Davit Bases or below other support equipment locations like rigging sleeves and outriggers, etc.
2	Locate the ISAs in pairs, horizontally level and perpendicular to the intended point of connection to cable(s) of the platform. The ISAs must be located in a vertical line with the intended suspension point of the platform.
3	Note: If ISAs are offset, either inboard or outboard of the intended suspension point of the platform, the ISAs must be offset either outboard or inboard of the intended suspension cables of the platform.

Check Off	**Intermittent Stabilization System for Roof Rigging a Platform- Design Check-Off**
☐	Are all the ISAs located vertically at no more than 50 foot or 3 floors?
☐	. Are all the ISAs pairs at spaced either 1) In-line, or 2) simultaneously inboard, or 3) simultaneously outboard of the intended point of suspension of the wire ropes of the suspended platform?

General Notes

A. Use caution if the concrete is to be acid washed (ie: muratic acid) care should be taken to avoid discoloring the stainless, and it, in turn, blemishing the concrete. Halogens such as chlorine, iodine, etc, will attack T304 stainless steel. Optional WGS No. 409-316 anchors should be used.

Work Station Stabilization for Ground Rigged Platforms and/or irregular facade shapes*.

Locate detent pin receptacle type, locate receptacle at each floor.

B. Receptacles to be stainless steel or other corrosion resistant material.

C. Detent pin handles with spring loaded ball lock, to suit building façade.

D. Include sufficient quantity of adjustable stainless steel stabilizer ties.

E. The design load for stabilization components such as tie-in guides-button/detent pins are design for a working load of four times the maximum anticipated load and a minimum of 600lbs acting in any direction against fracture or detachment.

F. Bolts and other connecting hardware to be made of stainless steel or hot-dipped galvanized steel.