

PGR-M Guard Rail

READ BEFORE YOU START INSTALLING

- ❖ Verify the surface PGR-M will be installed onto is capable of supporting the product and personnel installing it. A complete assessment of the entire surrounding areas should be made to determine if the walking and working surfaces have the strength and structural integrity to support users safely.
- ❖ ONLY install PGR-M on flat dry clean surfaces under conditions where adequate illumination is provided.
- ❖ Never install or use PGR-M on top of gravel, metal or on slippery surfaces.
- ❖ Never erect PGR-M near electrical wires, keep a minimum of ten (10) feet from power lines.
- ❖ EXTREMELY IMPORTANT, each rectangular BASE PLATE must be installed in the correct orientation. Install the BASE PLATE with the long side perpendicular or 90 degrees to the guard railings.
- ❖ PGR-M BASES have non-skid pads on the bottom. If a non-skid pad is missing do not use until one is installed. Contact your distributor at once.
- ❖ Refer to pages 8-9 for “Correct Installation Configurations” and to page 14 for “Incorrect Installation Configurations”.
- ❖ Refer to pages 11 - 12 for “PGR-M Field Modified Installation Configurations”.
- ❖ Position BASE PLATES bases at least 24” from an unprotected edge.
- ❖ IMPORTANT ALWAYS use Outriggers at both ends of any interruption in continuous rail section and at both ends of a continuous rail section. An Outrigger is either a M6, M8 or M10 guard railing installed at a 90 degree angle to a continuous run with a BASE PLATE connected to it.
- ❖ Refer to page 6 for definition of an Outrigger and pages 8 – 11 for illustrations of system installation requirements.

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- ❖ The PGR-M system is designed to meet all OSHA regulations.
- ❖ **DO NOT LEAN on any portion of the PGR-M at any time.**
- ❖ **DO NOT Hoist or tie off of any other equipment or persons to PGR-M.**
- ❖ Routine inspection of all parts is recommended. If damaged parts are found, replace with new parts. **Contact your distributor immediately to replace with new parts.**
- ❖ Installing the PGR-M requires careful attention and should not be performed by persons whose ability or alertness is impaired by fatigue, intoxicating beverages, illegal or prescription drugs, or any other physical cause that exposes the installer, the user or others to injury.
- ❖ All applications of the PGR-M should be verified and approved by competent, trained safety personnel.
- ❖ If it is necessary to remove PGR-M during a portion of a particular job, make sure to re-secure the unit before resuming work.
- ❖ If PGR-M is impacted, loosen all screws on the BASE PLATE fittings. Realign the guard railings and BASE PLATES, and then secure all set screws. If damaged parts are found, replace with new ones.

DEFINITIONS

BASE PLATE: Supporting base for guardrail. Refer to page 15.

CONTINUOUS RUN: A single or series of PGR-M modular guardrail sections installed in a continuous, without interruption, straight line.

OUTRIGGER: Either a 6 foot, 8 foot or 10 foot long guard railing installed at a 90 degree angle to a continuous run with a BASE PLATE connected to it.

TOEBOARD: A low protective barrier that will prevent the fall of materials and equipment to lower levels.

GUARDRAIL: A barrier secured to uprights and erected along the exposed sides and ends of platforms to prevent falls of persons.

LEADING EDGE: The edge of a floor, roof, or formwork for a floor or other walking / working surface (such as the deck) which changes location as additional floor, roof or deck, or formwork sections are placed or constructed. A leading edge is considered to be an unprotected side and edge.

UNPROTECTED SIDE AND EDGE: Any side or edge (except at entrance points of access) of a walking / working surface, e.g. floor, roof, ramp, or runway where there is no wall or guardrail system.

COMPETENT PERSON: Defined by 29 CFR 1926.32 (f) as someone "... who is capable of identifying existing and predicable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them."

QUALIFIED PERSON: Defined by 29 CFR 1926.32 (m) as someone "... who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, work, or the project."

PGR-M PARTS LIST

BP2Y5 - BASE PLATE - A rectangular flat base, containing two fittings. The fittings are designed to accept guardrail sections, PGR-M6, PGR-M8, or PGR-M10. Standard color of BASE PLATE is safety yellow. Other colors available upon request.

PGR-M6, PGR-M8, or PGR-M10 - Modular guard rails which are 6 feet, 8 feet and 10 feet long. Each Guardrail section is 42” tall with a mid rail 21” high. Standard color of the guardrails is safety yellow - other colors available upon request.

CT1912 - Optional Instruction Tube shipped loose which attaches to a PGR mid-rail. In the tube are Installation Instructions and one Allen Wrench tightening tool. Standard color of the tube is safety yellow - other colors available upon request.

TB-6/8/10L, TB-6/8/10M, TB-6/8/10M2, or TB-6/8/1R – Metal ToeBoards with Assembly Fittings – Type TB is only required when it is possible objects could fall from the work area to a lower level (Refer to “ToeBoard Accessory” Section beginning on page 25 for further information on where to use).

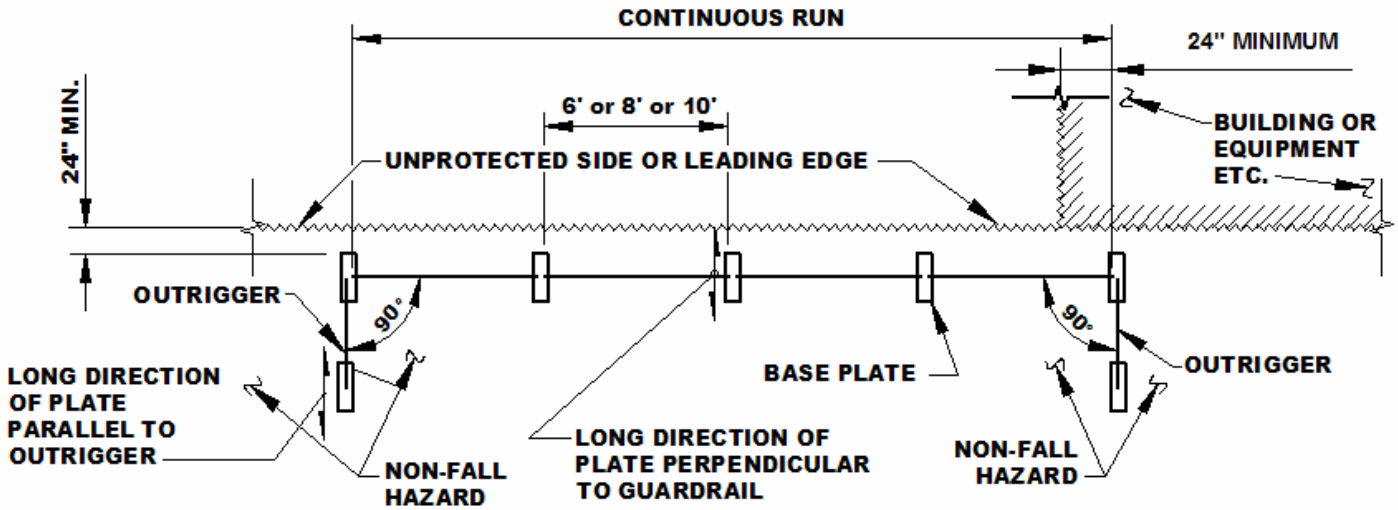
SPF166 – Splice Fitting – Fitting used to create custom length PGR.

TBSP4 – Splice Plate – Splice Plate used to create custom length PGR TOEBOARD.

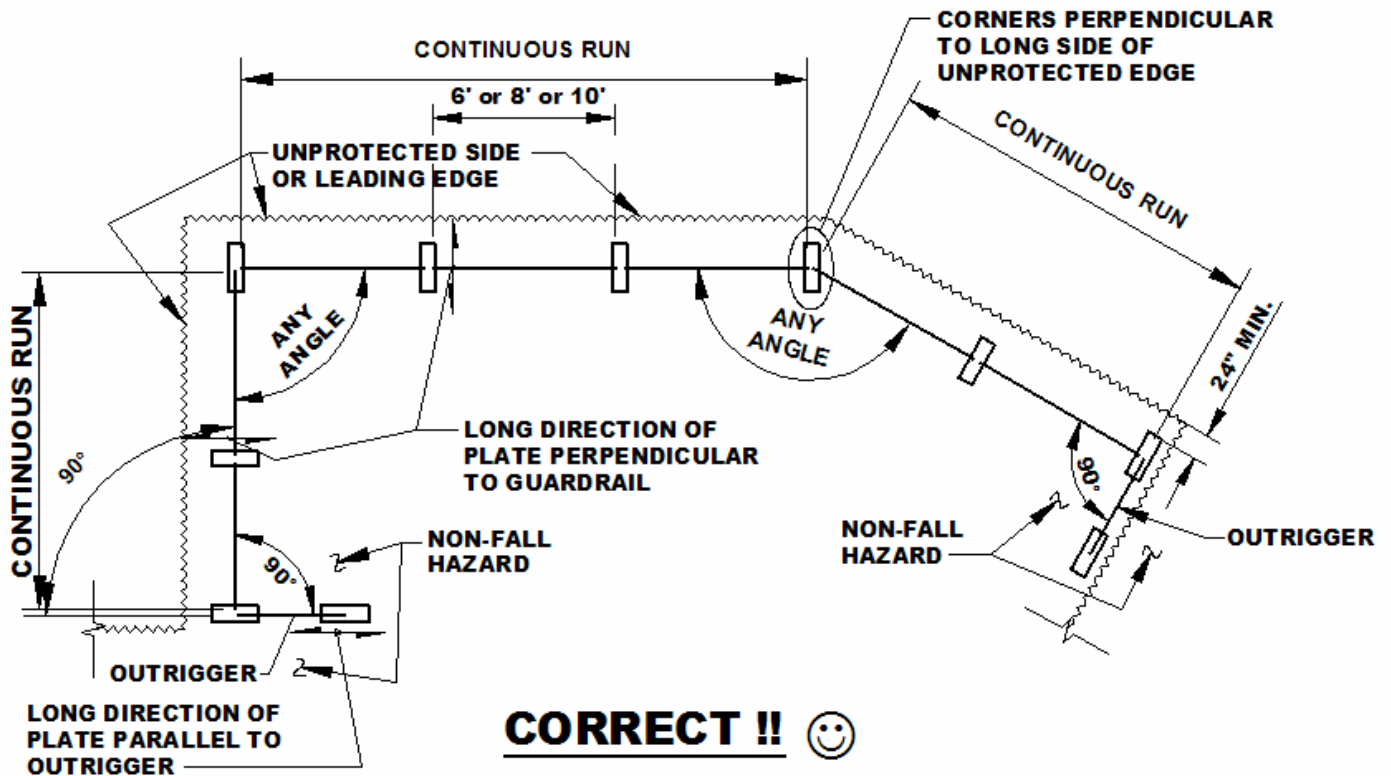
AF-L – Type AF Assembly Fitting. Wood ToeBoard bracket used to attach Wood Toe Boards to PGR-M (Lumber 2x4 *NOT PROVIDED*) when in a Continuous Run.

AF-S – Type AF Assembly Fitting. Wood ToeBoard bracket used to attach Wood Toe Boards to PGR-M (Lumber 2x4 *NOT PROVIDED*) at 90 degree turns and at OUTRIGGERS.

CORRECT INSTALLATION CONFIGURATIONS



CORRECT !! 😊



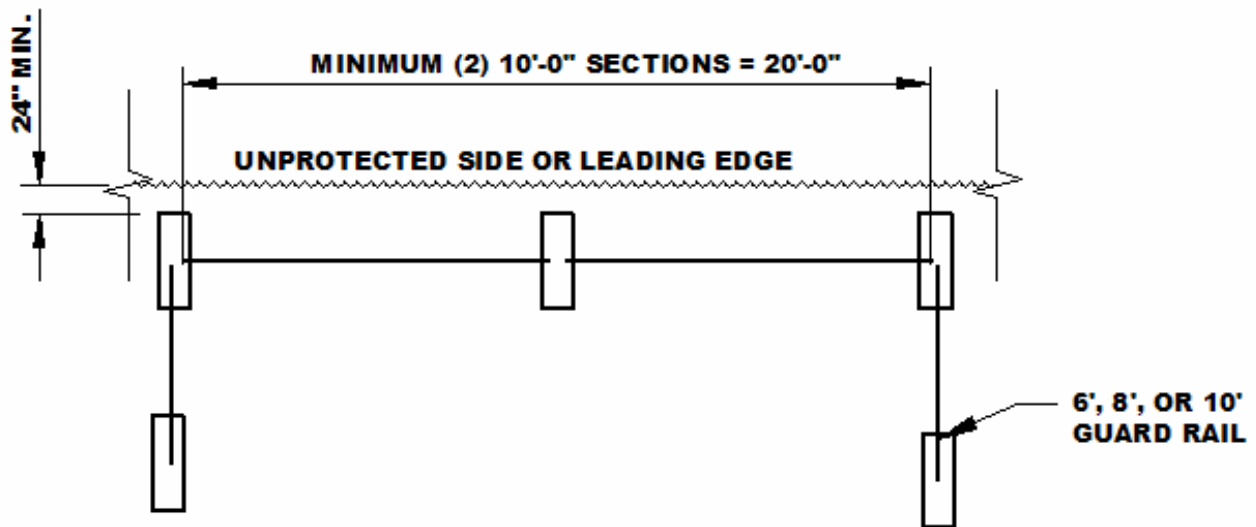
CORRECT !! 😊

UNSURE? 😞 PLEASE CALL! 😊

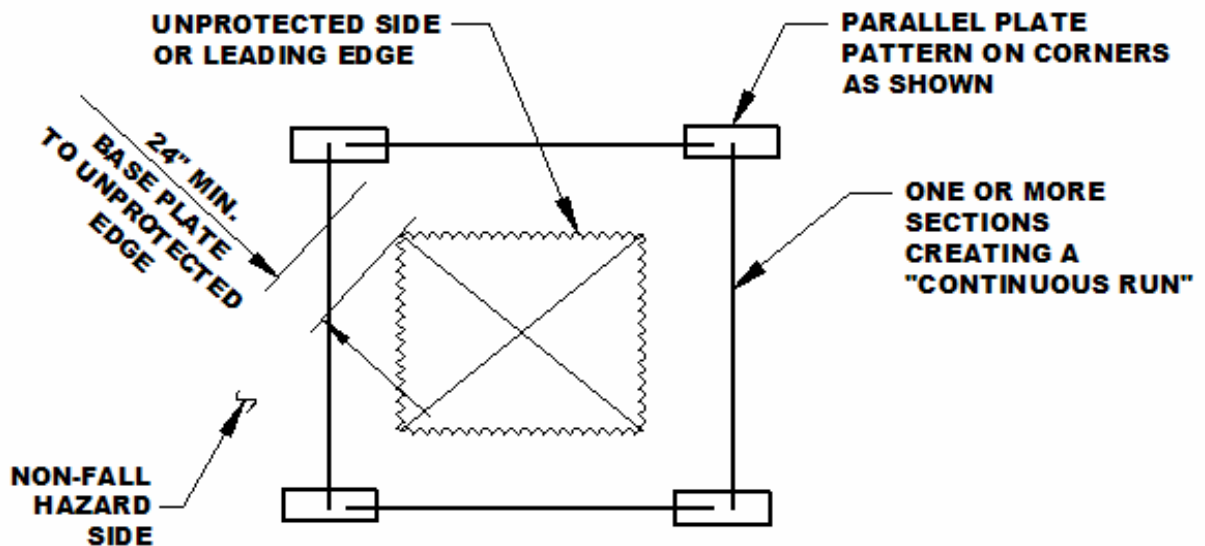
NOTE: For Installations on Surfaces With 1/4" or Less Slope Per Foot. Refer Also To "TAPERED ROOF INSTALLATION" Configuration.

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CORRECT INSTALLATION CONFIGURATIONS



MINIMUM "OPEN" SYSTEM 😊

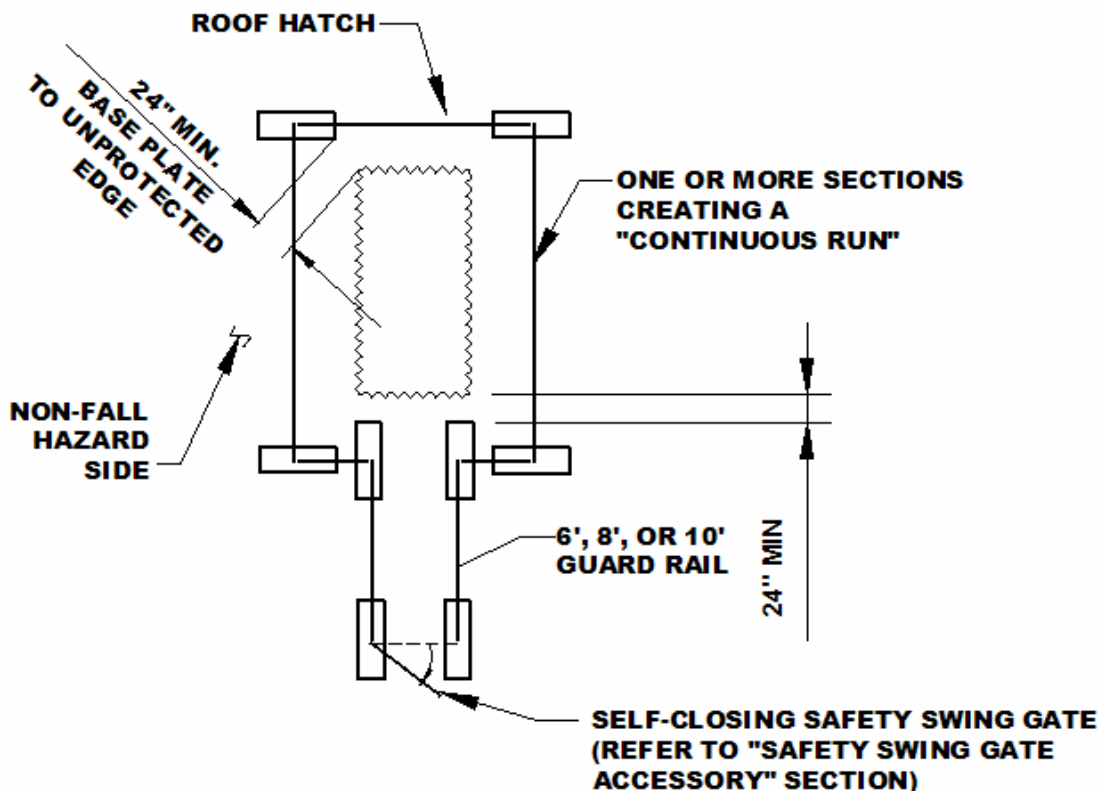


MINIMUM "CLOSED" SYSTEM 😊

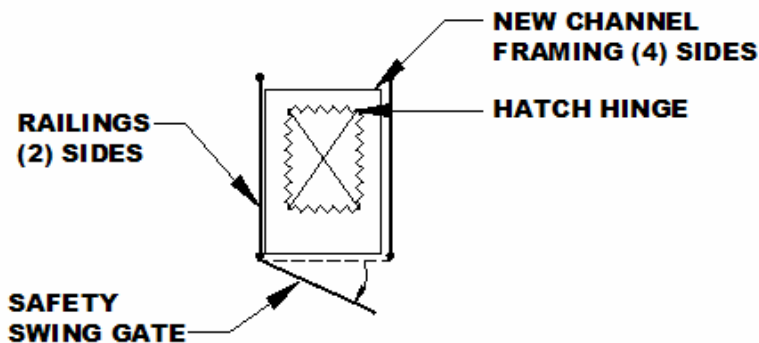
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ROOF HATCH INSTALLATIONS



ROOF HATCH ACCESS USING PGR-M

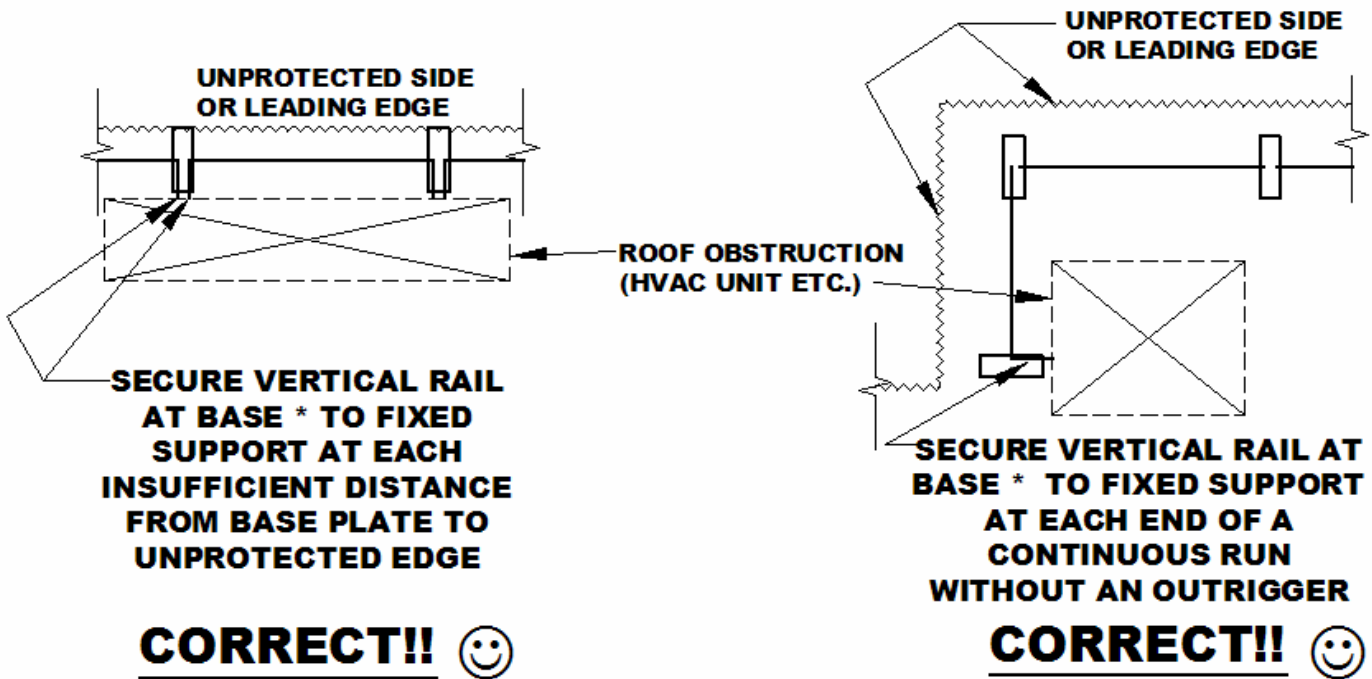
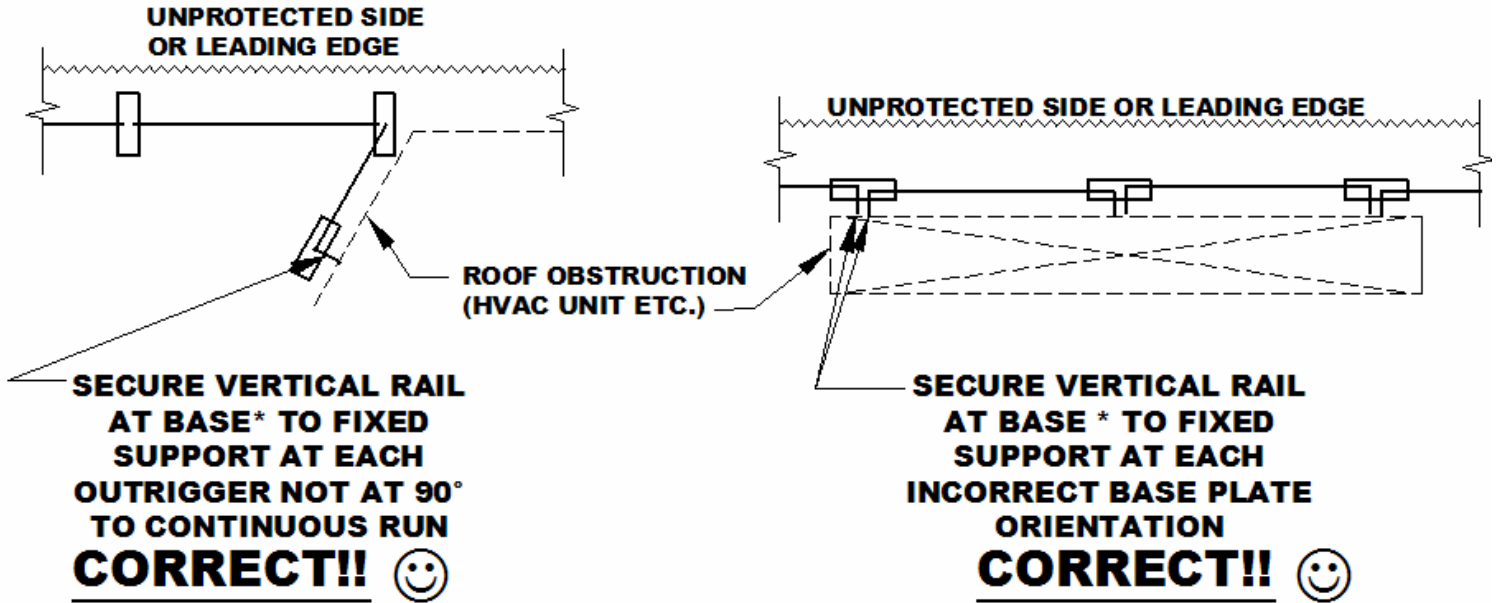


ROOF HATCH SYSTEM USING FIXED RAILING (PART#7900008)

UNSURE? 😞 PLEASE CALL! 😊

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FIELD MODIFIED INSTALLATION CONFIGURATIONS



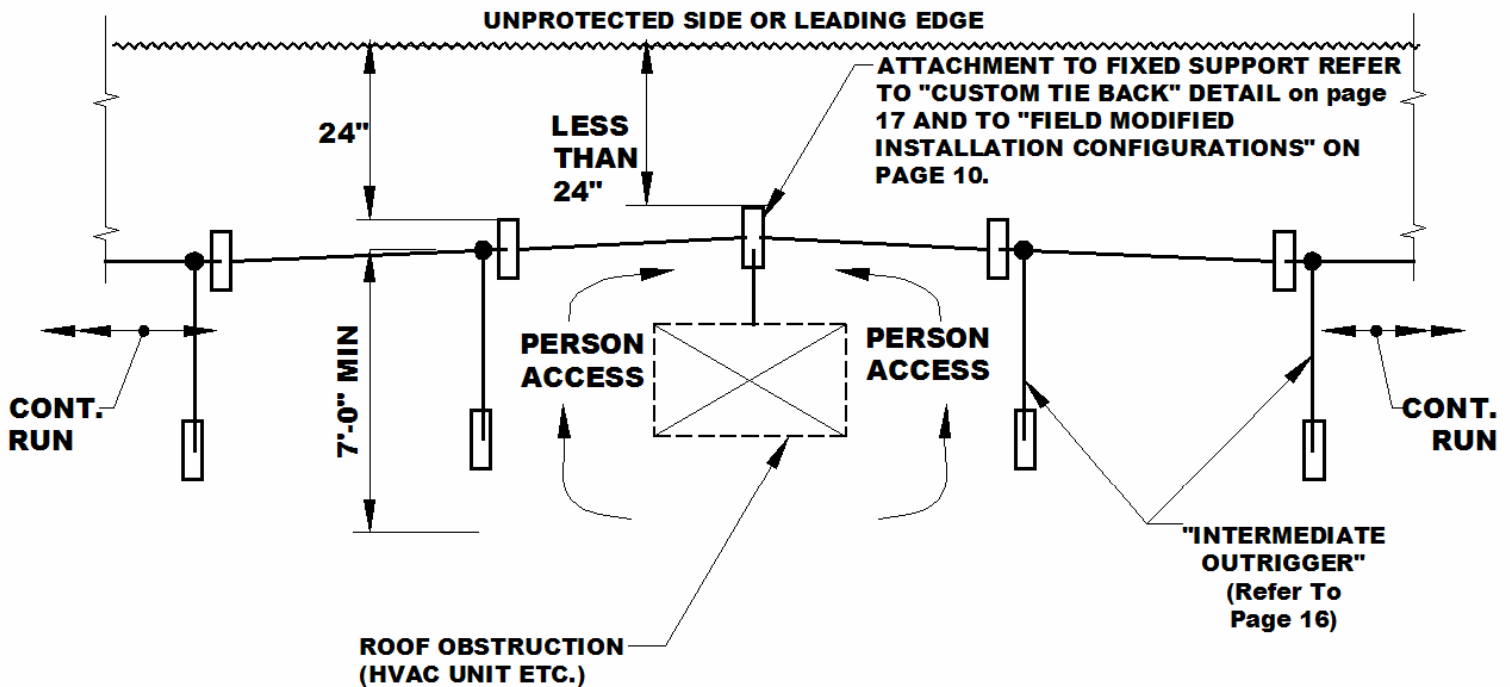
UNSURE? 😞 PLEASE CALL! 😊

***ATTACHMENT TO VERTICAL RAIL AT BASE CAN BE MADE WITH PART SST166. REFER TO "CUSTOM TIEBACK" PAGE 18.**

NOTE: These installations must be designed by an OSHA defined "Qualified Person".

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FIELD MODIFIED INSTALLATION CONFIGURATIONS



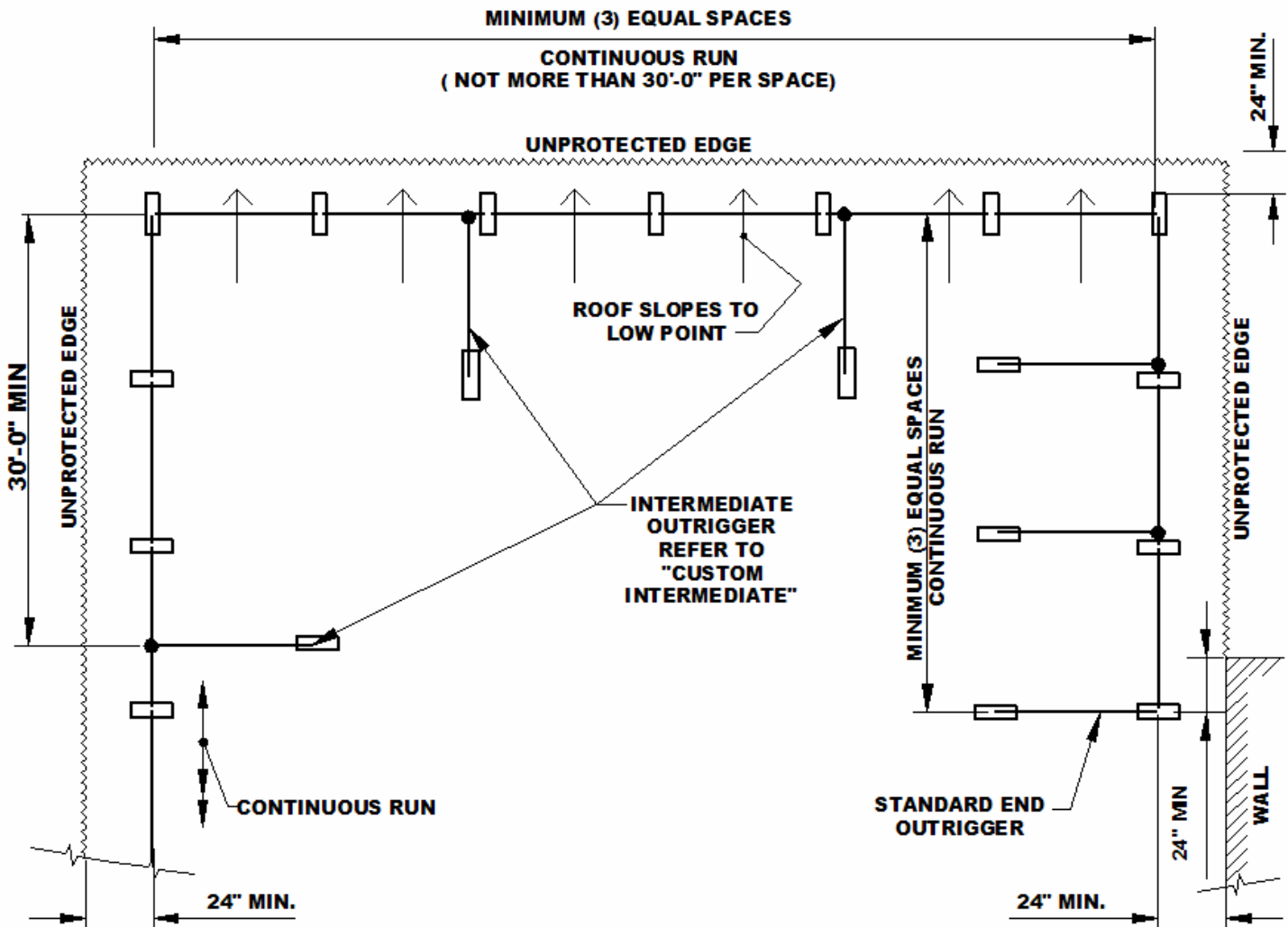
TYPICAL PLAN FOR WORKING CONTINUOUS RUNS AROUND OBSTRUCTIONS

Unsure? Please Call!

NOTE: These installations must be designed by an OSHA defined "Qualified Person".

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TAPERED ROOF INSTALLATION



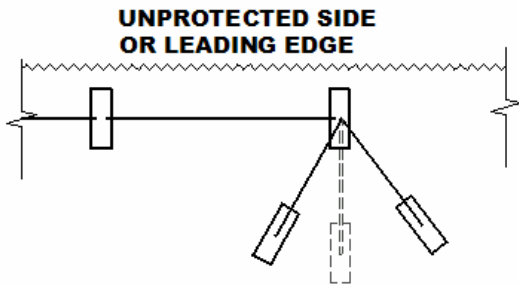
TYPICAL PLAN FOR TAPERED RUBBER / BITUMINOUS ROOFS SLOPED GREATER THAN 1/4" / FOOT & UP TO 1" / FOOT

Unsure? Please Call!

**NOTE: These installations must be designed by
an OSHA defined "Qualified Person".**

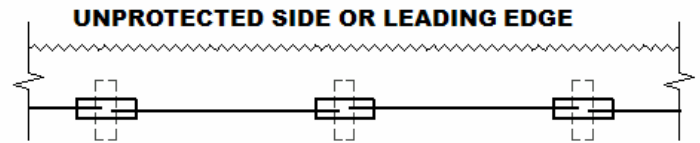
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INCORRECT INSTALLATION CONFIGURATIONS



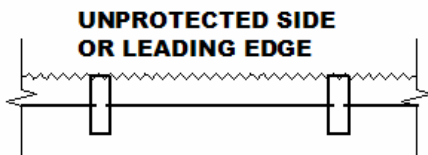
**OUTRIGGER NOT AT 90°
TO CONTINUOUS RUN**

INCORRECT !! ☹️



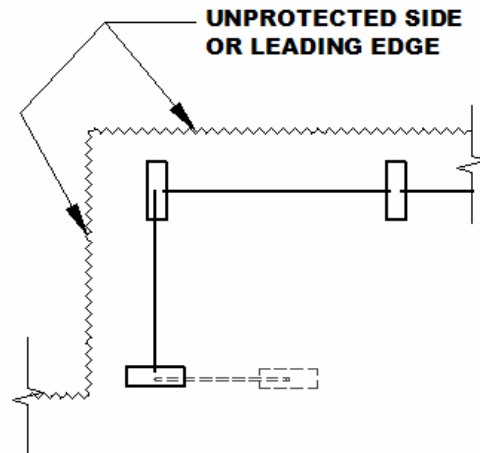
**INCORRECT BASE PLATE
ORIENTATION**

INCORRECT !! ☹️



**INSUFFICIENT DISTANCE
FROM BASE PLATE TO
UNPROTECTED EDGE**

INCORRECT !! ☹️

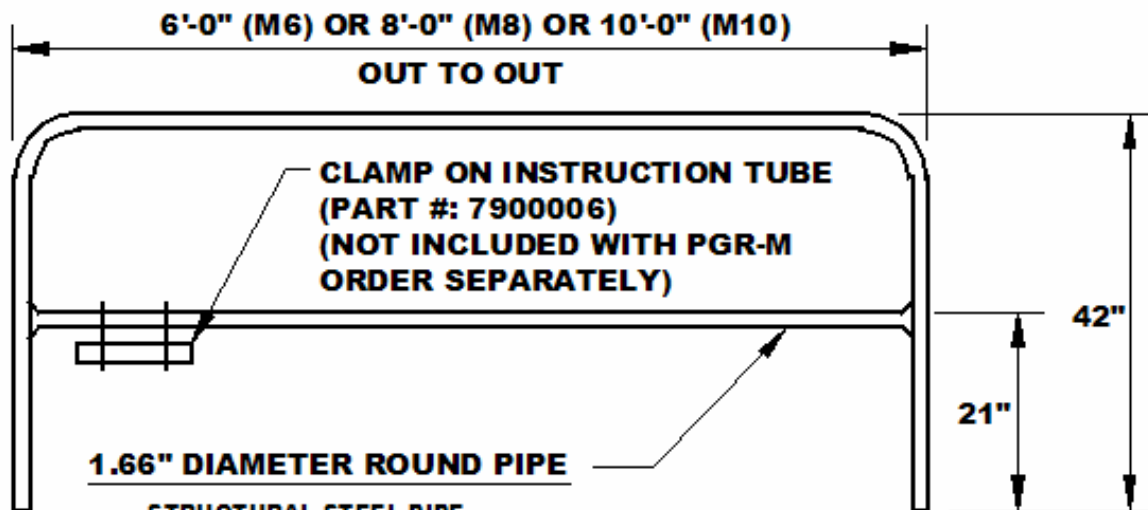


NO OUTRIGGER

INCORRECT !! ☹️

UNSURE? ☹️ PLEASE CALL ! 😊

SPECIFICATIONS



STRUCTURAL STEEL PIPE

- Strong & Rigid
- Precision Bent For Consistent Quality
- Smooth Corner Radii

POLYESTER POWDER COAT FINISH

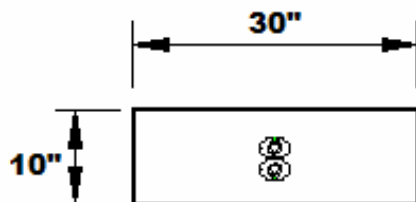
- Durable
- Attractive Fade Resistant
- Scratch Resistant
- Color Options ("Safety Yellow" - Standard)

LIGHTWEIGHT

- 6'-0" Guard Rail: 34 lbs
- 8'-0" Guard Rail: 41 lbs
- 10'-0" Guard Rail: 48 lbs

PGR-M6, M8, or M10-GUARDRAIL

PART #s: 7900010, 7900011, or 7900012



LIGHTWEIGHT 59 LB BASE PLATE

DURABLE FINISH ON BASE

- Protective & Durable
- Attractive Fade Resistant
- "Safety Yellow" - Standard

NON-SKID BASE

- Marine Quality
- Meets Military and Motor Vehicle Safety Standard Specs

BP2Y5-BASEPLATE

PART #: 7900004

PART #S FOR PGR WITH ONE BASE PLATE:

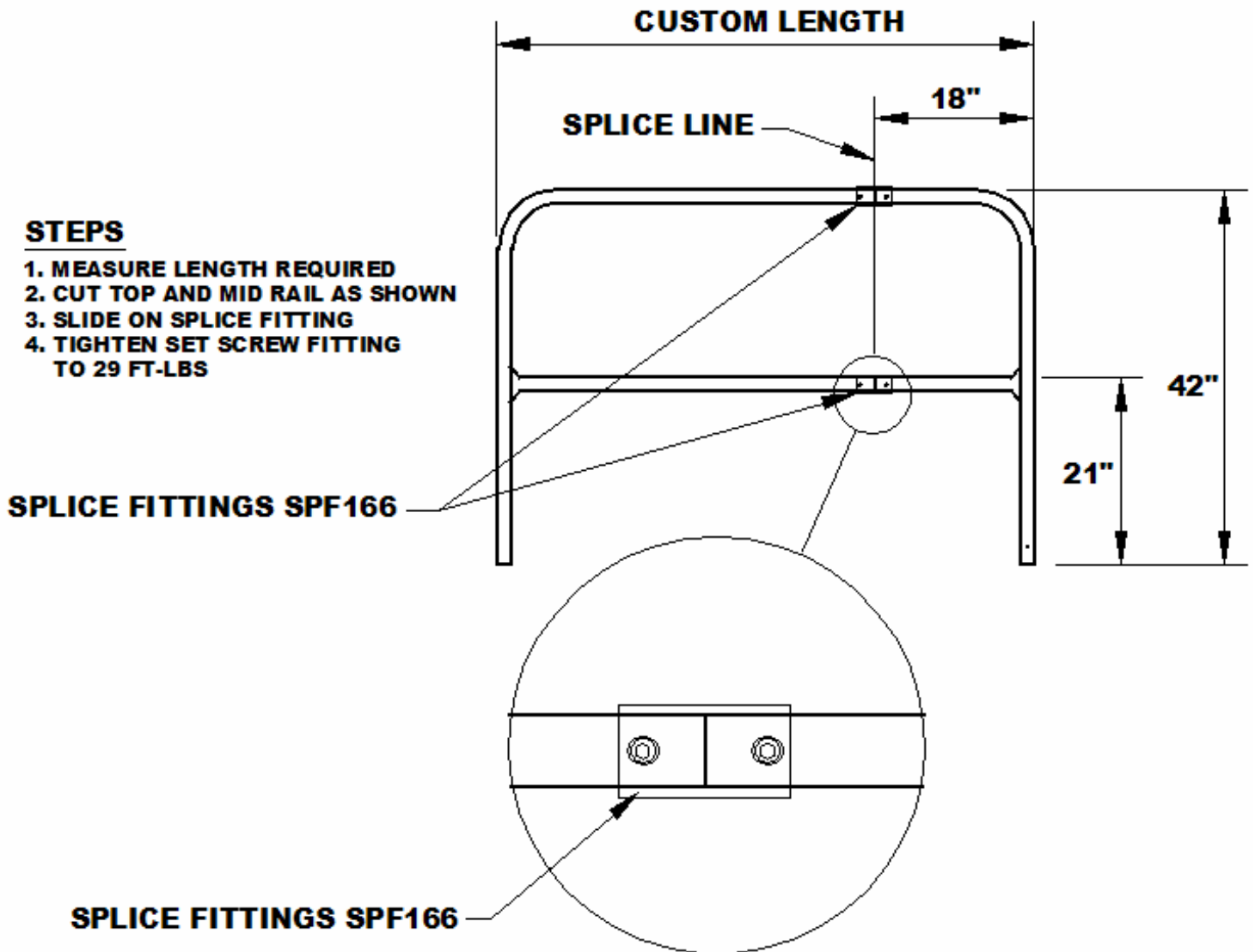
7900000 (PGR-M6 with BP2Y5)

7900001 (PGR-M8 with BP2Y5)

7900002 (PGR-M10 with BP2Y5)

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CUSTOM LENGTH SPLICE FITTING

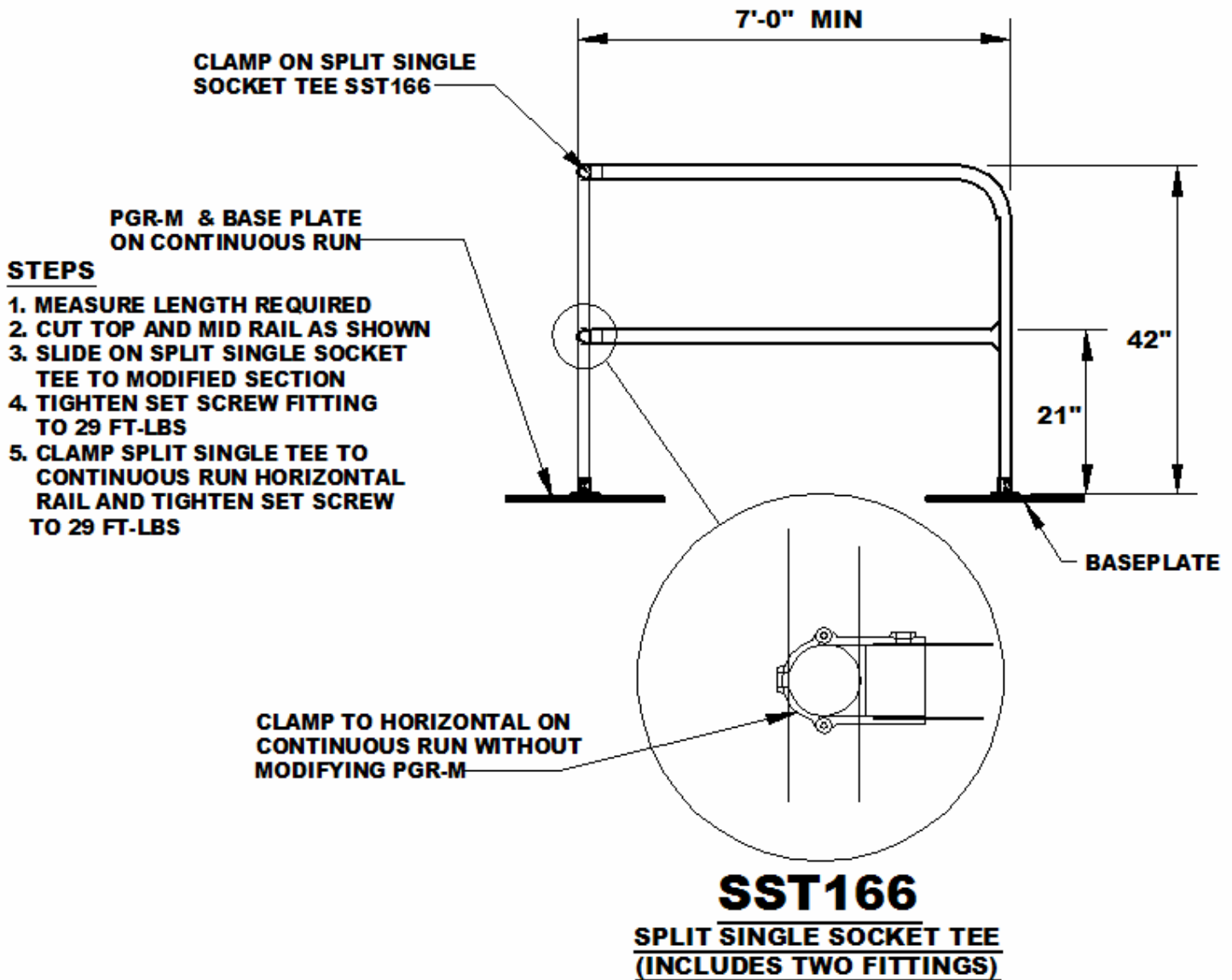


PGR-M6, M8, or M10 CUT TO MODIFIED LENGTH WITH SPLICE FITTING SPF166

SPLICE KIT PART #: 7900005
(INCLUDES TWO FITTINGS)

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INTERMEDIATE OUTRIGGER

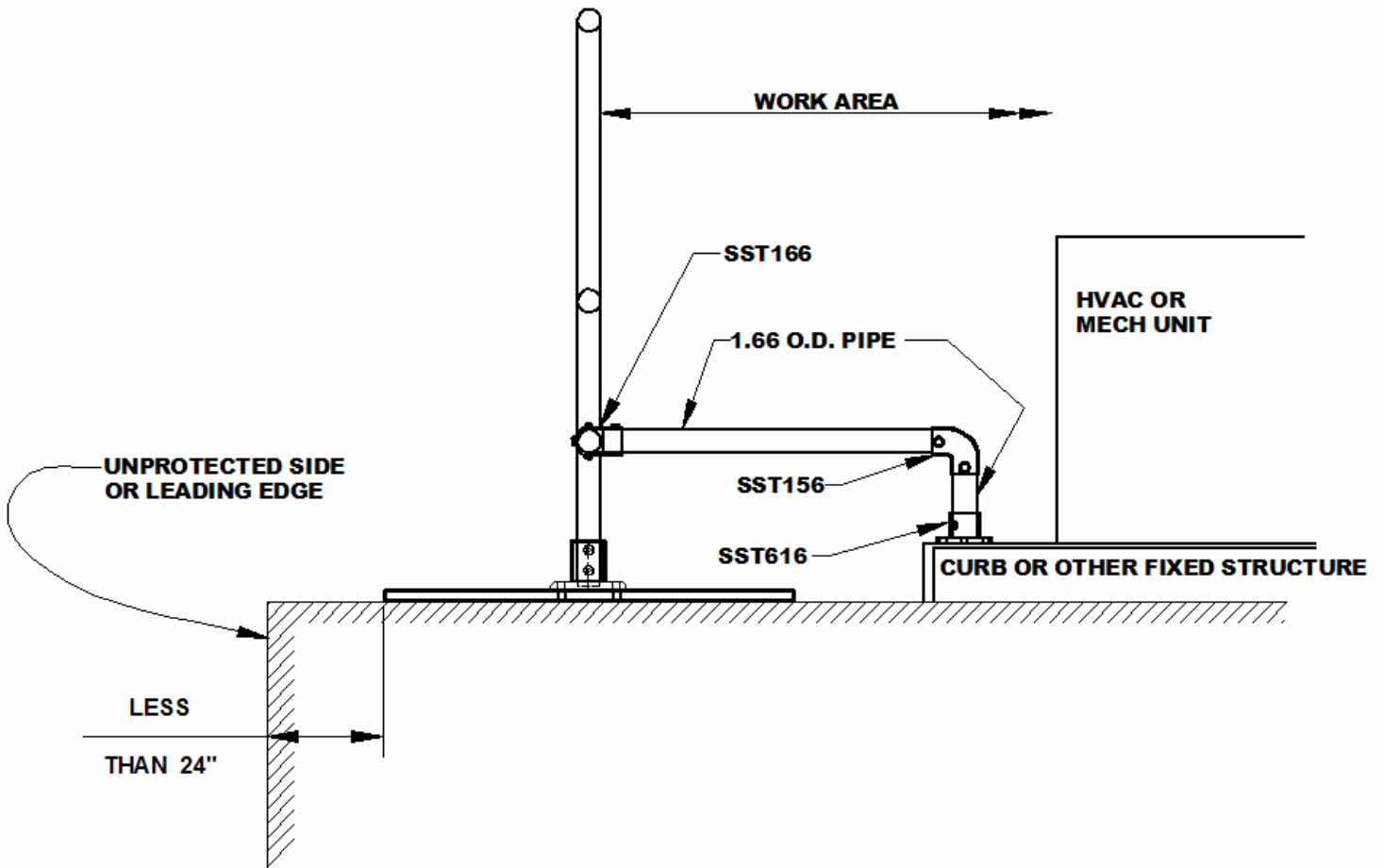


INTERMEDIATE OUTRIGGER FOR MODIFIED AND TAPERED ROOF INSTALLATION

MADE FROM PGR-M8 or M10 CUT HORIZONTAL AT VERTICAL POST TO MODIFY

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CUSTOM TIEBACK

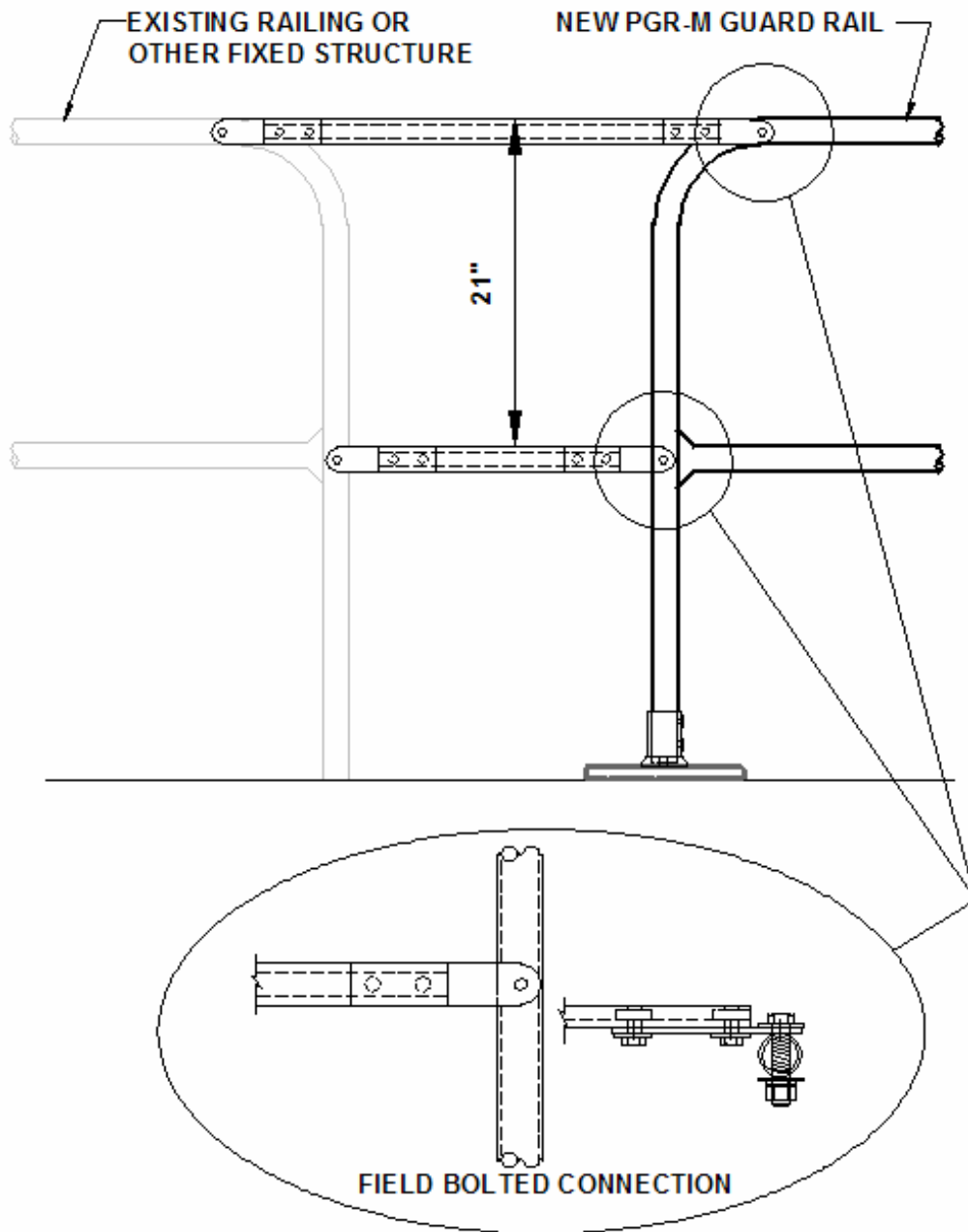


ATTACHMENT TO FIXED SUPPORT WITH CUSTOM TIEBACK

USE EITHER PIPE AND FITTINGS AS SHOWN OR
OTHER SUITABLE STRUCTURAL MATERIALS

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EXTENDED GUARDRAIL DETAIL

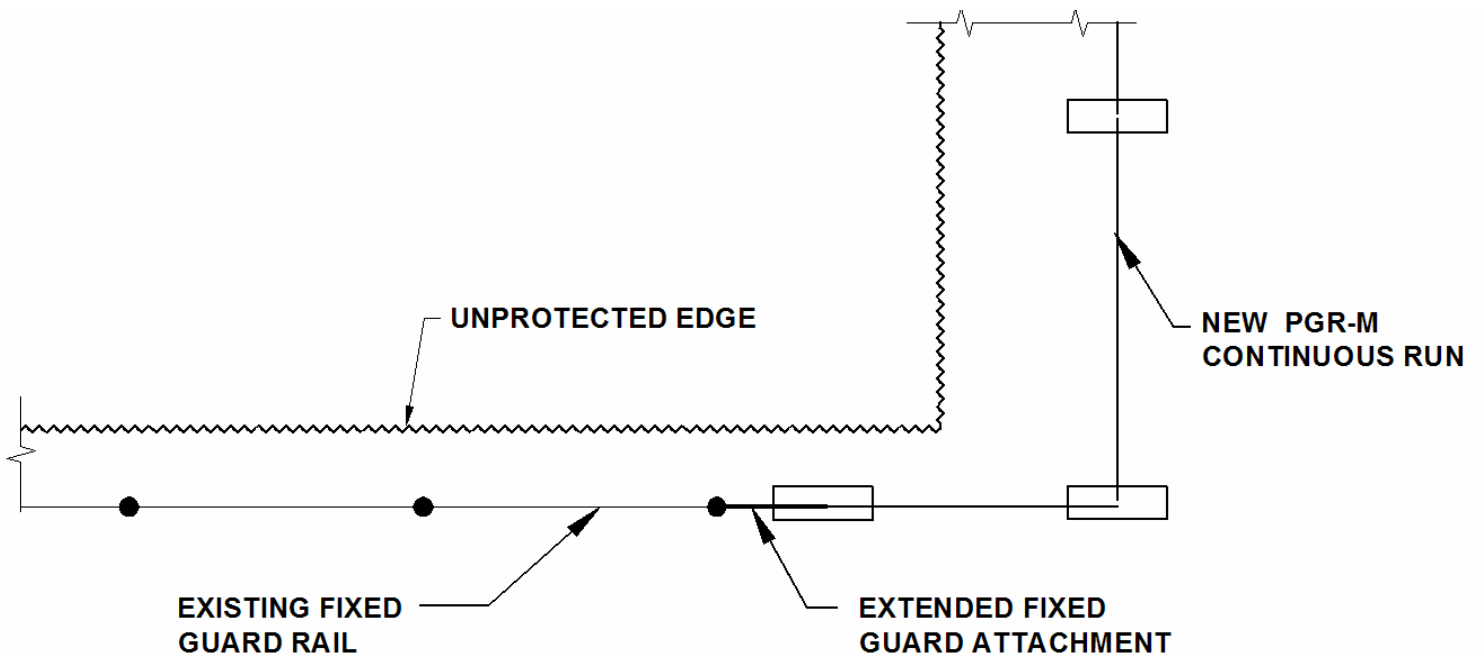


EXTENDED FIXED GUARD ATTACHMENT

PART #: EFGA-48
**(INCLUDES TWO LENGTHS 48" LONG FOR ONE
CLOSURE - TOP AND MID RAILS)**

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EXTENDED GUARDRAIL INSTALLATION



EXTENDED FIXED GUARD ATTACHMENT INSTALLATION

SYSTEM OSHA COMPLIANCE

COMPLETE SYSTEM EXCEEDS OSHA 29 CFR-1910.23 & 1926.502 AND IBC 2002 DESIGN REQUIREMENTS FOR GUARDRAIL WHEN ASSEMBLED PER INSTALLATION MANUAL

- Exceeds top rail loading of 200 lbs in any downward or outward direction
- Exceeds mid rail loading of 150 lbs in any downward or outward direction
 - 3'-6" high 1.66" outside diameter round pipe guard rail
 - Mid rail 1'-9" between base and top rail

Independently Tested To Exceed These Requirements

**CSI FORMATTED SPECIFICATIONS FOR A PORTABLE
GUARD RAIL™ SYSTEM AVAILABLE UPON REQUEST**

05720 Handrails and Railings
07700 – Roofing – Specialties and Accessories

PGR-M INSTALLATION PROCEDURES

- 1) Lay out the job first by measuring and spacing the BASE PLATES. (locate bases at least 24” from the edge of any surface) Failure to properly measure and plan ahead will result in difficulty in moving the assembled system to another location.
- 2) Be sure the BASE PLATES are in the correct orientation and the bottom of the BASE PLATE is non-skid treated. Next check that adequate room has been provided for the Outriggers (Refer to pages 8 - 14).
- 3) When satisfied with the layout, start inserting Guardrail sections M6, M8 or M10 into BASE PLATE (BP2Y5) fitting which is mounted on the BASE PLATE.
- 4) Locate CLAMP ON INSTRUCTION TUBE Accessory containing the Allen Wrench and Instructions to the mid-rail (Refer to page 32).
- 5) Use the Allen Wrench to tighten the set screws of the fittings mounted on the BASE PLATE. Torque set screws to 29 lbs/foot. Check tension twice on set screws to make sure they all have been tightly secured. To disassemble, reverse the process. Once installation is completed, return Allen Wrench to the tube for future use.
- 6) TOEBOARDS are an optional accessory provided only upon request. Refer to “TOEBOARD Accessory” section for information where to use TOEBOARDS.