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## **PART 1 - GENERAL**

### **1.01 WORK INCLUDED**

The contractor shall provide all labor, materials and accessories necessary for installation of the commercial welded wire fence system defined herein at (SPECIFY PROJECT SITE).

### **1.02 REFERENCES**

ASTM A641/A641M	Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire
ASTM A653/A653M	Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process
ASTM B117	Practice for Operating Salt-Spray (Fog) Apparatus
ASTM D523	Test Method for Specular Gloss
ASTM D714	Test Method for Evaluating Degree of Blistering in Paint
ASTM D822	Practice for Conducting Tests on Paint and Related Coatings and Materials using Filtered Open-Flame Carbon-Arc Light and Water Exposure Apparatus
ASTM D1654	Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments
ASTM D2244	Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates
ASTM D2794	Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
ASTM D3359	Test Method for Measuring Adhesion by Tape Test
ASTM F2453/F2453M	Standard Specification for Welded Wire Mesh Fence Fabric

### **1.03 SUBMITTAL**

The manufacturer's submittal package shall be provided prior to installation.

### **1.04 QUALITY ASSURANCE**

Installer Qualifications: The installer shall have completed similar installations in material, design.

## **PART 2 - MATERIALS**

### **2.01 MANUFACTURER**

#### **Rampart 358 Welded Wire**

Wallace Perimeter Security

Product: Rampart 358 Welded Wire

115 Lawson Crescent, Winnipeg, Manitoba Canada, R3P 1A6

T. 866.300.1110 <https://www.wallaceperimetersecurity.com/>

## 2.02 FABRICATION

- A. Panel heights should be approximately: 4 ft. (1.2m), 6ft. (1.8m), 8 ft. (2.4m), or a multiple of stacked panels. Specific panel heights: 48.7" (1236mm), 72.2" (1834mm) and 95.7" (2430mm) respectively as per standard drawings.
- B. Wire mesh panels shall be precut to specified lengths of approximately 8'3"; actual, 8'-3<sup>1</sup>/<sub>8</sub>" or 99.13" (2518 mm) wide.
- C. Steel Wire mesh fence panels shall be welded by resistance welding per ASTM F2453 using pre-galvanized steel wire; using Vertical 8 GA (4mm) pre-galvanized steel wires and Horizontal 8 GA (4mm) pre-galvanized steel wires with a mesh opening of 3" x 0.5" (76.2mm x 12.7mm).
- D. The cold rolled wire shall have a tensile strength of at least 74,000 psi (510 MPa) and 68,000 psi (469 MPa) shear strength. Wire strand shall be galvanized before welded (GBW), 0.50 ounces per square foot zinc coating conforming to the ASTM A641.

### 2.02.1 FENCE AND ACCESSORIES

- A. Available Rampart 358 - SECURITY - Welded Wire Panel Sizes:

WPS Part Number	Pre-Galvanized Steel Wire Gauge		Mesh Size	Standard Panel Length	Approx. Standard Panel Height - ft [m]	Standard Panel Height - in. [mm]
	Horizontal	Vertical				
100499 (Black)	1 x 8 GA [4mm]	1 x 8 GA [4mm]	3" x 0.5" [76.2mm x 12.7mm]	≈8'3" (8'-3 <sup>1</sup> / <sub>8</sub> " [2518mm])	4' [1.2m]	48.7" [1236mm]
100500 (Black)	1 x 8 GA [4mm]	1 x 8 GA [4mm]	3" x 0.5" [76.2mm x 12.7mm]	x ≈8'3" (8'-3 <sup>1</sup> / <sub>8</sub> " [2518mm])	6' [1.8m]	72.2" [1834mm]
100501 (Black)	1 x 8 GA [4mm]	1 x 8 GA [4mm]	3" x 0.5" [76.2mm x 12.7mm]	x ≈8'3" (8'-3 <sup>1</sup> / <sub>8</sub> " [2518mm])	8' [2.4m]	95.7" [2430mm]
Finish: Powder Coat Black						

B. Post and Bracket Options for Rampart 358 - SECURITY - Welded Wire Fence

WPS Part Number	Post Size/Type	Panel Height	Bracket Qty/Panel	Bracket Type	Finish
100668 (Black, 7' Long, .083, Dig and Set) –OR-  Option Available (Black, 4' Long with flange plate)	2-1/2" x 2-1/2" [64mm x 64mm] Square Post	4' [1.2m]	4	Spider <sup>(1)</sup>	Powder Coat, Black
9' Long Dig and Set Option Available (Black) –OR-  Option Available (Black, 6' Long with flange plate)	2-1/2" x 2-1/2" [64mm x 64mm] Square Post	6' [1.8m]	6	Spider <sup>(1)</sup>	Powder Coat, Black
100533	Spider Bracket (Black, includes self-threading bolts); accommodation for 2 wires.				
<sup>(1)</sup> NOTES: For line/end post with straight line panels or 90-degree interior angle; double bracket post support is necessary for this option.  Standard: #12 tamperproof self-tapping screw with 1/4" washer. Optional Upgrade: 8 mm stainless steel carriage bolt with 8 mm stainless steel break-away nut. 2-1/2" posts available in 4' & 6' only.					
7' Dig and Set Option Available (Black) - OR-  Option Available (Black, 4' Long with flange plate)	3" x 3" [76 mm x 76mm] Square Post	4' [1.2m]	4	Spider <sup>(2)</sup>	Powder Coat, Black
100126 (12 GA, Black, 9' Long, Dig and Set) –OR-  100769 (12 GA, Black, 10' Long, Dig and Set) -OR-	3" x 3" [76 mm x 76mm] Square Post	6' [1.8m]	6	Spider <sup>(2)</sup>	Powder Coat, Black

WPS Part Number	Post Size/Type	Panel Height	Bracket Qty/Panel	Bracket Type	Finish
100122 (11 GA, Black, 6' Long, with 6"x6" flange plate)					
100121 (12 GA, Black, 12' Long, Dig and Set) -OR-  100125 (11 GA, Black, 8' Long with 6"x6" flange plate)	3" x 3" [76 mm x 76mm] Square Post	8' [2.4m]	9	Spider <sup>(2)</sup>	Powder Coat, Black
100533	Spider Bracket (Black, includes self-threading bolts); accommodation for 2 wires.				
<p><sup>(2)</sup>NOTES: For line/end post with straight line panels or 90-degree interior angle; double bracket post support is necessary for this option.</p> <p>Standard: #12 tamperproof self-tapping screw with 1/4" washer. Optional Upgrade: 8 mm stainless steel carriage bolt with 8 mm stainless steel break-away nut.</p>					
<b>FLAT BAR SYSTEM</b>					
100126 (12 GA, Black, 9' Long, Dig and Set) -OR-  100769 (12 GA, Black, 10' Long, Dig and Set) -OR-  100122 (11 GA, Black, 6' Long, with 6"x6" flange plate)	3" x 3" [76 mm x 76mm] Square Post	6' [1.8m]	7	Defender Lite Bracket <sup>(3)</sup>	Powder Coat, Black
100121 (12 GA, Black, 12' Long, Dig and Set) -OR-  100125 (11 GA, Black, 8' Long with 6"x6" flange plate)	3" x 3" [76 mm x 76mm] Square Post	8' [2.4m]	9	Defender Lite Bracket <sup>(3)</sup>	Powder Coat, Black
Custom Quoted	Defender Lite Bracket				



WPS Part Number	Post Size/Type	Panel Height	Bracket Qty/Panel	Bracket Type	Finish
<sup>(3)</sup> NOTES: U-bracket system with carriage bolts and shear nuts. M8 carriage bolt with M8 break-away nut. 1.2" (30 mm) x .25" (6 mm) cover strip.  Full height shield bracket makes the fence difficult to sabotage.					
100126 (12 GA, Black, 9' Long, Dig and Set) –OR-  100769 (12 GA, Black, 10' Long, Dig and Set) -OR-  100122 (11 GA, Black, 6' Long, with 6"x6" flange plate)	3" x 3" [76 mm x 76mm] Square Post	6' [1.8m]	7	Defender Secure Bracket <sup>(4)</sup>	Powder Coat, Black
100121 (12 GA, Black, 12' Long, Dig and Set) -OR-  100125 (11 GA, Black, 8' Long with 6"x6" flange plate)	3" x 3" [76 mm x 76mm] Square Post	8' [2.4m]	9	Defender Secure Bracket <sup>(4)</sup>	Powder Coat, Black
Custom Quoted	Defender Secure Bracket				
<sup>(4)</sup> NOTES: U-bracket system with carriage bolts and shear nuts. M8 carriage bolt with M8 break-away nut and 0.13" (3 mm) post bracket. 4.7" (120 mm) X 0.13" (3 mm) clamp bar. 5.0" (127 mm) x 5.0" (127 mm) x 0.13" (3 mm) corner clamp angle.  Full height shield bracket makes the fence difficult to sabotage.					

### 2.03 COATING

- A. Hot-dip galvanized: The wire mesh is coated with 0.5 oz./sq. ft. (150 g/m<sup>2</sup>) zinc in conformity with ASTM A641 (1989) Class 1.

- B. Pre-galvanized and polyester powder coated: The polyester surface coating color shall be standard black or optional color as per RAL chart. Polyester coating to be minimum 4 mils (0.102mm) with an average thickness of 100µm (4 mils approx.) applied by an electrostatic method. Coating shall cover all surfaces of the wire sections.
  
- C. Corrosion: The wires are galvanized according to ASTM A641/A641M with a minimum of 40 gr/m<sup>2</sup>. After the welding process the panels will be pre-treated and provided with a conversion layer for a better anti-corrosion effect and better adhesion of the polyester powder coating.

### **PART 3 - EXECUTION**

All new installation shall be laid out by the contractor in accordance with the construction plans. The manufacturers' gate drawings shall identify the necessary gate hardware and installation recommendations required for the application.