SECTION 32 31 00

ORNAMENTAL FENCING

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\*\* NOTE TO SPECIFIER \*\* Iron World Manufacturing, LLC; products.
This section is based on the products of Iron World Manufacturing, LLC, which is located at:9390 Davis Ave.Howard County, MD 20723Toll Free Tel: 866-310-2747Tel: 301-776-7448Fax: 301-776-7449Email: [request info (richard@ironworldfencing.com)](https://arcat.com/rfi?action=email&company=Iron%252BWorld%252BManufacturing%252C%252BLLC&message=RE%253A%2520Spec%2520Question%2520(02820iro)%253A%2520&coid=45991&spec=02820iro&rep=&fax=301-776-7449)
Web: <https://ironworldfencing.com>
 [ [Click Here](https://arcat.com/company/iron-world-manufacturing-llc-45991) ] for additional information.
Located in Howard County, Maryland, Iron World is the fastest growing manufacturer and distributor of top-quality ornamental fencing and slide gates in the country. Our world class products meet the highest standards of excellence for design, durability, and functionality. You will find our products at such places as the Pentagon, the Washington Monument, the Washington Nationals' Stadium, Norfolk Naval Base and numerous bridges, highways and schools throughout the country.
Our mission is to provide superior products and services at a competitive price. Iron World strives to be at the forefront of ornamental fence fabrication and powder coating technology. Customer service is never sacrificed as we service each and every customer as a partner.

1. GENERAL
	1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Ornamental Fencing.
		2. Ornamental Swing Gates.
		3. Ornamental Slide Gates.
		4. Privacy Panels.
	1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section - .
		2. Section - .
		3. Section 03 30 00 - Cast-in-Place Concrete.
		4. Section 04 20 00 - Unit Masonry.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM A 653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
		2. ASTM A 787 - Standard Specification for Electric-Resistance-Welded Metallic- Coated Carbon Steel Mechanical Tubing.
		3. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles and Tubes.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data: Manufacturer's data sheets on each product to be used, including:
			1. Preparation instructions and recommendations.
			2. Storage and handling requirements and recommendations.
			3. Installation methods.
		3. Shop Drawings: Indicate plan layout, spacing of components, post foundation dimensions, hardware anchorage, gates, and schedule of components.

\*\* NOTE TO SPECIFIER \*\* Delete the following paragraphs if LEED is not applicable.

* + 1. LEED Submittals: Provide documentation of how the requirements of Credit will be met:
			1. List of proposed materials with recycled content. Indicate post-consumer recycled content and pre-consumer recycled content for each product having recycled content.
			2. Product data and certification letter indicating percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content.
			3. Product Data for Credit MR 5.1 and Credit MR 5.2: Submit data, including location and distance from Project of material manufacturer and point of extraction, harvest or recovery for main raw material.
				1. Include statement indicating cost for each regional material and the fraction by weight that is considered regional.

\*\* NOTE TO SPECIFIER \*\* Delete selection samples if colors have already been selected.

* + 1. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
		2. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.
		3. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
		4. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic checking and adjustment and periodic and maintenance of all operating components.
	1. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Manufacturer with a minimum of 5 years documented experience with ornamental fencing of the type and scale specified.
		2. Installer Qualifications: Installer with a minimum of 5 years documented experience with ornamental fencing of the type and scale specified.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Provide a mock-up for evaluation and application workmanship.
			1. Finish areas designated by Architect.
			2. Do not proceed with remaining work until workmanship and color are approved by Architect.
			3. Refinish mock-up area as required to produce acceptable work.
	1. DELIVERY, STORAGE, AND HANDLING
		1. Store products in manufacturer's unopened packaging until ready for installation.
		2. Identify each package with manufacturer's name.
		3. Store fence material and accessories in secure and dry place.
	2. WARRANTY

\*\* NOTE TO SPECIFIER \*\* Select the Warranty required for the products specified from the following paragraphs and delete the ones not required.

* + 1. Provide manufacturers 20 Year Limited Warranty for Ornamental Fencing.
		2. Provide manufacturers 20 Year Limited Warranty for Ornamental Swing Gates.
		3. Provide manufacturers 15 Year Limited Warranty for Ornamental Cantilever Slide Gates.
	1. EXTRA MATERIALS
		1. See Section 01 60 00 - Product Requirements.
		2. Deliver extra sets of hardware items for Owner's use in maintenance.

\*\* NOTE TO SPECIFIER \*\* Delete options below not required; enter percentage or discrete number to be supplied.

* + - 1. Post Caps: 2 of each type specified.
			2. Rail Brackets: 2 of each type specified.
			3. Nuts and Bolts: 12 of each type installed.
			4. Corner Bolts: 2 of each type specified.
			5. Swivel Brackets: 2 of each type specified.
			6. Touch-Up Paint: One pint of each color.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Iron World Manufacturing, LLC, which is located at:9390 Davis Ave.Howard County, MD 20723Toll Free Tel: 866-310-2747Tel: 301-776-7448Fax: 301-776-7449Email: [request info (richard@ironworldfencing.com)](https://arcat.com/rfi?action=email&company=Iron%252BWorld%252BManufacturing%252C%252BLLC&message=RE%253A%2520Spec%2520Question%2520(02820iro)%253A%2520&coid=45991&spec=02820iro&rep=&fax=301-776-7449);Web: <https://ironworldfencing.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete paragraphs not required.

* 1. ORNAMENTAL FENCING
		1. Residential: Maverick-R (Residential) with a 15 gauge channel and 5/8 inch ( mm) steel picket. Each pickets is fastened to rails with 1/4 inch (6 mm) industrial aircraft drive rivets that provide the strength of a welded product without rusting. Maverick-C sections can rack up to 24 inches (610 mm) on a standard punch channel.

\*\* NOTE TO SPECIFIER \*\* Delete style options not required. If more than one style is required clearly identify the extent of each on the Drawings.

* + - 1. Style: Aberdeen with smooth top rail.
			2. Style: Barcelona with pressed point picket.
			3. Style: Canterbury with flat top picket.
			4. Style: Camden with smooth top rail.

\*\* NOTE TO SPECIFIER \*\* Insert height required. Available in standard nominal heights from 3 ft to 6 ft. (914 to 1829 mm). Custom heights are also available contact the manufacturer for additional information.

* + - 1. Height: \_\_\_ ft (\_\_\_ mm).
			2. Width; Nominal Center to Center of Posts: \_\_\_ ft (\_\_\_ mm).

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: Black.
			2. Color: White.
			3. Color: Brown.
			4. Color: Ensor Green.
			5. Color: Woodland Green.
			6. Color: As selected by the Architect.

\*\* NOTE TO SPECIFIER \*\* Delete rails options not required. Note that Camden style is not available in two rail.

* + - 1. Rails: Two.
			2. Rails: Three.
			3. Rails: Four.
			4. Pickets: Spaced 3-15/16 inch (100 mm) face to face.
				1. Size: 5/8 inch (16 mm) square. Thickness: 18 ga.

\*\* NOTE TO SPECIFIER \*\* Delete post size option not required.

* + - 1. Post Size: 2 inch (51 mm) square. Thickness: 16 ga.
			2. Post Size: 2-1/2 inch (64 mm) square. Thickness: 14 ga.

\*\* NOTE TO SPECIFIER \*\* Delete finials option not required.

* + - 1. Finials: Spear.
			2. Finials: Ball.

\*\* NOTE TO SPECIFIER \*\* Delete brackets options not required.

* + - 1. Brackets: Swivel.
			2. Brackets: Straight.
		1. Commercial: Maverick-C (Commercial) with a 15 gauge channel. Each pickets is fastened to rails with 1/4 inch (6 mm) industrial aircraft drive rivets that provide the strength of a welded product without rusting. Maverick-C sections can rack up to 24 inches (610 mm) on a standard punch channel.

\*\* NOTE TO SPECIFIER \*\* Delete style options not required. If more than one style is required clearly identify the extent of each on the Drawings.

* + - 1. Style: Aberdeen with smooth top rail.
			2. Style: Barcelona with pressed point picket.
			3. Style: Canterbury with flat top picket.
			4. Style: Georgetown with finial top picket.
			5. Style: Guardian with arched top.
			6. Style: Guardian Plus with radius top.
			7. Style: Old Town Series with smooth top rail.
			8. Style: St. Vincent with looped pickets and finial tops.

\*\* NOTE TO SPECIFIER \*\* Insert height required. Available in standard nominal heights from 3 ft to 8 ft. (914 to 2438 mm). Custom heights are also available contact the manufacturer for additional information.

* + - 1. Height: \_\_\_ ft (\_\_\_ mm).
			2. Width, Nominal Center to Center of Posts: \_\_\_ ft (\_\_\_ mm).

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: Black.
			2. Color: White.
			3. Color: Brown.
			4. Color: Ensor Green.
			5. Color: Woodland Green.
			6. Color: As selected by the Architect.

\*\* NOTE TO SPECIFIER \*\* Delete rails options not required. Note that Old Town style is not available in two rail.

* + - 1. Rails: Two.
			2. Rails: Three.
			3. Rails: Four.
			4. Pickets: Spaced at 3-15/16 inch (100 mm) face to face.

\*\* NOTE TO SPECIFIER \*\* Delete size and thickness options not required.

* + - * 1. Size: 3/4 inch (19 mm) square. Thickness: 14 ga.
				2. Size: 3/4 inch (19 mm) square. Thickness: 16 ga.
				3. Size: 3/4 inch (19 mm) square. Thickness: 18 ga.
				4. Size: 1 inch (25 mm) square. Thickness: 14 ga.
				5. Size: 1 inch (25 mm) square. Thickness: 16 ga.
				6. Size: 1 inch (25 mm) square. Thickness: 18 ga.

\*\* NOTE TO SPECIFIER \*\* Delete posts size and thickness options not required.

* + - 1. Posts: Size: 2 inch (51 mm) square. Thickness: 14 ga.
			2. Posts: Size: 2-1/2 inch (64 mm) square. Thickness: 12 ga.
			3. Posts: Size: 2-1/2 inch (64 mm) square. Thickness: 14 ga.
			4. Posts: Size: 3 inch (76 mm) square. Thickness: 12 ga.
			5. Posts: Size: 4 inch (102 mm) square. Thickness: 11 ga.
			6. Posts: Size: 6 inch (152 mm) square. Thickness: 3/16 inch.

\*\* NOTE TO SPECIFIER \*\* Delete horizontal rail trim options not required. Rail trim is available for use with 3 and 4 horizontal rail systems only and is not available in two rail.

* + - 1. Horizontal Rail Trim: 4 inch (102 mm) rings.
			2. Horizontal Rail Trim: 9 inch (229 mm) rings.
			3. Horizontal Rail Trim: 4 inch (102 mm) diamonds.
			4. Horizontal Rail Trim: 9 inch (229 mm) diamonds.

\*\* NOTE TO SPECIFIER \*\* Delete finials options not required. Note that finials are available on Georgetown and St Vincent only.

* + - 1. Finials: Spear.
			2. Finials: Ball.
			3. Finials: Fleur.

\*\* NOTE TO SPECIFIER \*\* Delete brackets options not required.

* + - 1. Brackets: Swivel.
			2. Brackets: Straight.
		1. Industrial: Maverick-I (Industrial) is made with 11 gauge channel and both 3/4 and 1 inch (19 and 25 mm) steel pickets that are riveted to a channel. Maverick-I can rack up to 10 inches (254 mm) on a standard punch channel.

\*\* NOTE TO SPECIFIER \*\* Delete style options not required. If more than one style is required clearly identify the extent of each on the Drawings.

* + - 1. Style: Aberdeen with smooth top rail.
			2. Style: Barcelona with pressed point picket.
			3. Style: Canterbury with flat top picket.
			4. Style: Georgetown with finial top picket.
			5. Style: Old Town Series with smooth top rail.
			6. Style: St. Vincent with looped pickets and finial tops.
			7. Style: Guardian with arched top.
			8. Style: Guardian Plus with radius top.

\*\* NOTE TO SPECIFIER \*\* Insert height required. Available in standard nominal heights from 3 ft to 8 ft. (914 to 2438 mm). Custom heights are also available contact the manufacturer for additional information.

* + - 1. Height: \_\_\_ ft (\_\_\_ mm).
			2. Width, Nominal Center to Center of Posts: \_\_\_ ft (\_\_\_ mm).

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: Black.
			2. Color: White.
			3. Color: Brown.
			4. Color: Ensor Green.
			5. Color: Woodland Green.
			6. Color: As selected by the Architect.

\*\* NOTE TO SPECIFIER \*\* Delete rails options not required. Note that Old Town style is not available in two rail.

* + - 1. Rails: Two.
			2. Rails: Three.
			3. Rails: Four.
			4. Pickets: Spaced at 3-15/16 inch (100 mm) face to face.

\*\* NOTE TO SPECIFIER \*\* Delete size and thickness options not required.

* + - * 1. Size: 3/4 inch (19 mm) square. Thickness: 14 ga.
				2. Size: 3/4 inch (19 mm) square. Thickness: 16 ga.
				3. Size: 3/4 inch (19 mm) square. Thickness: 18 ga.
				4. Size: 1 inch (25 mm) square. Thickness: 14 ga.
				5. Size: 1 inch (25 mm) square. Thickness: 16 ga.
				6. Size: 1 inch (25 mm) square. Thickness: 18 ga.

\*\* NOTE TO SPECIFIER \*\* Delete posts size and thickness options not required.

* + - 1. Posts: Size: 2 inch (51 mm) square. Thickness: 14 ga.
			2. Posts: Size: 2-1/2 inch (64 mm) square. Thickness: 12 ga.
			3. Posts: Size: 2-1/2 inch (64 mm) square. Thickness: 14 ga.
			4. Posts: Size: 3 inch (76 mm) square. Thickness: 12 ga.
			5. Posts: Size: 4 inch (102 mm) square. Thickness: 11 ga.
			6. Posts: Size: 6 inch (152 mm) square. Thickness: 3/16 inch.

\*\* NOTE TO SPECIFIER \*\* Delete horizontal rail trim options not required. Rail trim is available for use with 3 and 4 horizontal rail systems only and is not available in two rail.

* + - 1. Horizontal Rail Trim: 4 inch (102 mm) rings.
			2. Horizontal Rail Trim: 9 inch (229 mm) rings.
			3. Horizontal Rail Trim: 4 inch (102 mm) diamonds.
			4. Horizontal Rail Trim: 9 inch (229 mm) diamonds.

\*\* NOTE TO SPECIFIER \*\* The following choices are available with Old Town Series only.

* + - 1. Horizontal Rail Trim: 9 inch (229 mm) rings.
			2. Horizontal Rail Trim: 9 inch (229 mm) rings with finial.
			3. Horizontal Rail Trim: Square.
			4. Horizontal Rail Trim: Star.

\*\* NOTE TO SPECIFIER \*\* Delete finials options not required. Note that finials are available on Georgetown and St Vincent only.

* + - 1. Finials: Spear.
			2. Finials: Ball.
			3. Finials: Fleur.

\*\* NOTE TO SPECIFIER \*\* Delete brackets options not required.

* + - 1. Brackets: Swivel.
			2. Brackets: Straight.
		1. Solid Iron: Maverick-S (Solid) Solid Line is made with 3/4 inch (19 mm) solid hot dipped galvanized steel pickets that are riveted to an 11 gauge channel. Pickets are hot dip galvanized. Industrial Aircraft Rivets are used to attach each individual picket to the rail allowing the section to rack to your job specifications.

\*\* NOTE TO SPECIFIER \*\* Delete style options not required. If more than one style is required clearly identify the extent of each on the Drawings.

* + - 1. Style: Aberdeen with smooth top rail.
			2. Style: Canterbury with flat top picket.
			3. Style: Georgetown with finial top picket.

\*\* NOTE TO SPECIFIER \*\* Insert height required. Available in standard nominal heights from 3 ft to 8 ft. (914 to 2438 mm). Custom heights are also available contact the manufacturer for additional information.

* + - 1. Height: \_\_\_ ft (\_\_\_ mm).
			2. Width; Nominal Center to Center of Posts: \_\_\_ ft (\_\_\_ mm).

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: Black.
			2. Color: White.
			3. Color: Brown.
			4. Color: Ensor Green.
			5. Color: Woodland Green.
			6. Color: As selected by the Architect.

\*\* NOTE TO SPECIFIER \*\* Delete rails options not required. Note that Old Town style is not available in two rail.

* + - 1. Rails: Two.
			2. Rails: Three.
			3. Rails: Four.
			4. Pickets: Spaced 3-15/16 inch (100 mm) face to face.
				1. Size: 3/4 inch (19 mm) square. Thickness: Solid.

\*\* NOTE TO SPECIFIER \*\* Delete posts size and thickness options not required.

* + - 1. Post Size: 2 inch (51 mm) square. Thickness: 14 ga.
			2. Post Size: 2-1/2 inch (64 mm) square. Thickness: 12 ga.
			3. Post Size: 2-1/2 inch (64 mm) square. Thickness: 14 ga.
			4. Post Size: 3 inch square. Thickness: 12 gauge.
			5. Post Size: 4 inch square. Thickness: 11 gauge.
			6. Post Size: 6 inch square. Thickness: 3/16 inch.

\*\* NOTE TO SPECIFIER \*\* Delete horizontal rail trim options not required. Rail trim is available for use with 3 and 4 horizontal rail systems only and is not available in two rail.

* + - 1. Horizontal Rail Trim: 4 inch (102 mm) rings.
			2. Horizontal Rail Trim: 9 inch (229 mm) rings.
			3. Horizontal Rail Trim: 4 inch (102 mm) diamonds.
			4. Horizontal Rail Trim: 9 inch (229 mm) diamonds.

\*\* NOTE TO SPECIFIER \*\* Delete finials options not required. Note that finials are available on Georgetown and St Vincent only.

* + - 1. Finials: Ball.
			2. Finials: Fleur.

\*\* NOTE TO SPECIFIER \*\* Delete brackets options not required.

* + - 1. Brackets: Swivel.
			2. Brackets: Straight.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete paragraphs not required.

* 1. ORNAMENTAL GATES
		1. Ornamental Swing Gates:

\*\* NOTE TO SPECIFIER \*\* Delete styles options not required. If more than one style is required clearly identify the extent of each on the Drawings.

* + - 1. Style: Aberdeen:

\*\* NOTE TO SPECIFIER \*\* Delete swing options not required.

* + - * 1. Single Swing: AS-1.
				2. Single Swing: AS-2.
				3. Single Swing: AS-3.
				4. Single Swing: AS-4.
				5. Single Swing: AS-5.
				6. Single Swing: AS-6.
				7. Double Swing: AD-1.
				8. Double Swing: AD-2.
				9. Double Swing: AD-3.
				10. Double Swing: AD-4.
				11. Double Swing: AD-5.
			1. Style: Canterbury:

\*\* NOTE TO SPECIFIER \*\* Delete swing and accessories options not required.

* + - * 1. Single Swing CD-1.
				2. Single Swing CD-2.
				3. Single Swing CD-4.
				4. Single Swing CD-5.
				5. Single Swing CD-6.
				6. Double Swing: CD-1, 3 Rail.
				7. Double Swing: CD-1, 4 Rail.
				8. Inner Channel Accessories: 4 inch (102 mm) ring.
				9. Inner Channel Accessories: 9 inch (229 mm) ring.
				10. Inner Channel Accessories: 6 inch (152 mm) square.
				11. Inner Channel Accessories: 4 inch (104 mm) star.
				12. Inner Channel Accessories: 9 inch (229 mm) star.
			1. Style: Barcelona:

\*\* NOTE TO SPECIFIER \*\* Delete swing and accessories options not required.

* + - * 1. Single Swing: BS-1.
				2. Single Swing: BS-2.
				3. Single Swing: BS-3.
				4. Single Swing: BS-4.
				5. Single Swing: BS-5.
				6. Single Swing: BS-6.
				7. Double Swing: BD-1.
				8. Double Swing: BD-2.
				9. Double Swing: BD-3.
				10. Double Swing: BD-4.
				11. Double Swing: BD-5.
				12. Double Swing: BD-6.
				13. Double Swing: BD-7.
				14. Double Swing: BD-8.
				15. Double Swing: BD-9.
				16. Double Swing: BD-10.
				17. Double Swing: BD-11.
				18. Double Swing: BD-12.
				19. Double Swing: BD-13.
				20. Double Swing: BD-14.
				21. Double Swing: BD-15.
				22. Inner Channel Accessories: 4 inch (102 mm) ring.
				23. Inner Channel Accessories: 9 inch (229 mm) ring.
				24. Inner Channel Accessories: 6 inch (152 mm) square.
				25. Inner Channel Accessories: 4 inch (104 mm) star.
				26. Inner Channel Accessories: 9 inch (229 mm) star.
			1. Style: Georgetown:

\*\* NOTE TO SPECIFIER \*\* Delete swing, tops, and accessories options not required.

* + - * 1. Single Swing: GS-1.
				2. Single Swing: GS-2.
				3. Single Swing: GS-3.
				4. Single Swing: GS-4.
				5. Single Swing: GS-5.
				6. Single Swing: GS-6.
				7. Double Swing: GD-1.
				8. Double Swing: GD-2.
				9. Double Swing: GD-3.
				10. Finial Tops: Spear.
				11. Finial Tops: Ball.
				12. Finial Tops: Fleur.
				13. Inner Channel Accessories: 4 inch (102 mm) ring.
				14. Inner Channel Accessories: 9 inch (229 mm) ring.
				15. Inner Channel Accessories: 6 inch (152 mm) square.
				16. Inner Channel Accessories: 4 inch (104 mm) star.
				17. Inner Channel Accessories: 9 inch (229 mm) star.
			1. Style: Old Town:

\*\* NOTE TO SPECIFIER \*\* Delete swing, tops, and accessories options not required.

* + - * 1. Single Swing: OTS-1.
				2. Single Swing: OTS-2.
				3. Single Swing: OTS-3.
				4. Single Swing: OTS-4.
				5. Single Swing: OTS-5.
				6. Single Swing: OTS-6.
				7. Single Swing: OTS-7.
				8. Single Swing: OTS-8.
				9. Single Swing: OTS-9.
				10. Single Swing: OTS-10.
				11. Double Swing: OTD-1.
				12. Double Swing: OTD-2.
				13. Double Swing: OTD-3.
				14. Double Swing: OTD-4.
				15. Double Swing: OTD-5.
				16. Double Swing: OTD-6.
				17. Finial Tops: Spear.
				18. Finial Tops: Ball.
				19. Finial Tops: Fleur.
				20. Picket Tops: Flat.
				21. Picket Tops: Pointed
				22. Inner Channel Accessories: 9 inch (229 mm) ring.
				23. Inner Channel Accessories: 6 inch (152 mm) square.
				24. Inner Channel Accessories: 9 inch (229 mm) star.
			1. Style: Saint Vincent:

\*\* NOTE TO SPECIFIER \*\* Delete swing, tops, and accessories options not required.

* + - * 1. Single Swing: SVS-1
				2. Single Swing: SVS-2
				3. Double Swing: SVD-1
				4. Finial Tops: Spear.
				5. Finial Tops: Ball.
				6. Finial Tops: Fleur.
				7. Inner Channel Accessories: 4 inch (102 mm) ring.
				8. Inner Channel Accessories: 9 inch (229 mm) ring.
				9. Inner Channel Accessories: 6 inch (152 mm) square.
				10. Inner Channel Accessories: 4 inch (104 mm) star.
				11. Inner Channel Accessories: 9 inch (229 mm) star.
			1. Style: Guardian:

\*\* NOTE TO SPECIFIER \*\* Delete swing, tops, and accessories options not required.

* + - * 1. Single Swing: GSS-1.
				2. Single Swing: GSS-2.
				3. Double Swing: GSD-1.
				4. Double Swing: GSD-2.
				5. Finial Tops: Spear.
				6. Finial Tops: Fleur.
				7. Picket Tops: Flat.
				8. Picket Tops: Pointed
				9. Inner Channel Accessories: 4 inch (102 mm) ring.
				10. Inner Channel Accessories: 9 inch (229 mm) ring.
				11. Inner Channel Accessories: 6 inch (152 mm) square.
				12. Inner Channel Accessories: 4 inch (104 mm) star.
				13. Inner Channel Accessories: 9 inch (229 mm) star.
			1. Style: Guardian Plus:

\*\* NOTE TO SPECIFIER \*\* Delete swing, tops, and accessories options not required.

* + - * 1. Single Swing: GSS-1.
				2. Single Swing: GSS-2.
				3. Double Swing: GSD-1.
				4. Double Swing: GSD-2.
				5. Finial Tops: Spear.
				6. Finial Tops: Fleur.
				7. Picket Tops: Flat.
				8. Picket Tops: Pointed
				9. Inner Channel Accessories: 4 inch (102 mm) ring.
				10. Inner Channel Accessories: 9 inch (229 mm) ring.
				11. Inner Channel Accessories: 6 inch (152 mm) square.
				12. Inner Channel Accessories: 4 inch (104 mm) star.
				13. Inner Channel Accessories: 9 inch (229 mm) star.

\*\* NOTE TO SPECIFIER \*\* Insert height required. Available in standard nominal heights from 3 to 8 ft (914 to 2438 mm) Custom heights are also available contact the manufacturer for additional information.

* + - 1. Height: \_\_\_ ft.

\*\* NOTE TO SPECIFIER \*\* Insert width required. Swing gates can range in size from 3 ft (914 mm) single gates to 36 ft (10973 mm) double gates. Larger sizes are available upon request. Custom heights are also available contact the manufacturer for additional information.

* + - 1. Width, Nominal Center to Center of Posts: \_\_\_ ft.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: Black.
			2. Color: White.
			3. Color: Brown.
			4. Color: Ensor Green.
			5. Color: Woodland Green.
			6. Color: As selected by the Architect.
			7. Gate Frame: Fabricated of galvanized steel tubing conforming to ASTM A 653 having a 45,000 psi (310 MPa) tensile strength and a G90 0.9 oz per sf zinc coating. Members welded with stainless steel rods, forming a rigid one piece unit. Vertical upright members 2 inches (51 mm) square and 13 ga. metal thickness.
			8. Interior Horizontal Rails and Pickets:

\*\* NOTE TO SPECIFIER \*\* Delete gate leaves options not required.

* + - * 1. Gate Leaves: Up to 8 ft (2438 mm); horizontal rails of formed hot rolled, structural steel "U" channels.

Horizontal Rails (W x H x Thickness): 1-3/8 x 1-1/2 x 0.120 inches; 11 ga (35 x 38 x 3 mm). Punched to receive pickets and rivets. Stainless steel welded inside vertical members.

Pickets: Galvanized steel spaced at 3-15/16 inches (100 mm) face to face.

\*\* NOTE TO SPECIFIER \*\* Delete size and thickness of pickets not required.

Size: 3/4 inch (19 mm) square. Thickness: 14 ga.

Size: 3/4 inch (19 mm) square. Thickness: 16 ga.

Size: 3/4 inch (19 mm) square. Thickness: 18 ga.

Size: 1 inch (25 mm) square. Thickness: 14 ga.

Size: 1 inch (25 mm) square. Thickness: 16 ga.

Size: 1 inch (25 mm) square. Thickness: 18 ga.

* + - * 1. Gate Leaves: 8 ft 1 inch to 12 ft 0 inches (2464 to 3658 mm). Provided with additional 1-1/2 inch (38 mm) square stiffener welded to top and bottom horizontal rails of formed hot rolled, structural steel "U" channels.

Horizontal Rails (W x H x Thickness): 1-3/8 x 1-1/2 x 0.120 inches; 11 ga (35 x 38 x 3 mm). Punched to receive pickets and rivets. Stainless steel welded inside vertical members.

Pickets: Galvanized steel spaced at 3-15/16 inches (100 mm) face to face.

\*\* NOTE TO SPECIFIER \*\* Delete size and thickness of pickets not required.

Size: 3/4 inch (19 mm) square. Thickness: 14 ga.

Size: 3/4 inch (19 mm) square. Thickness: 16 ga.

Size: 3/4 inch (19 mm) square. Thickness: 18 ga.

Size: 1 inch (25 mm) square. Thickness: 14 ga.

Size: 1 inch (25 mm) square. Thickness: 16 ga.

Size: 1 inch (25 mm) square. Thickness: 18 ga.

* + - * 1. Gate Leaves: 12 ft 1 inch to 18 feet 0 inches (3683 to 5486 mm). Provided with 2 additional 2 inch (51 mm) square horizontal members welded to the 2 inch (51 mm) square vertical members forming a 2 inch (51 mm) square rectangular frame.

Horizontal Rails (W x H x Thickness): 1-3/8 x 1-1/2 x 0.120 inches; 11 ga (35 x 38 x 3 mm). Punched to receive pickets and rivets. Stainless steel welded inside vertical members.

Pickets: Galvanized steel spaced at 3-15/16 inches (100 mm) face to face.

\*\* NOTE TO SPECIFIER \*\* Delete size and thickness of pickets not required.

Size: 3/4 inch (19 mm) square. Thickness: 14 ga.

Size: 3/4 inch (19 mm) square. Thickness: 16 ga.

Size: 3/4 inch (19 mm) square. Thickness: 18 ga.

Size: 1 inch (25 mm) square. Thickness: 14 ga.

Size: 1 inch (25 mm) square. Thickness: 16 ga.

Size: 1 inch (25 mm) square. Thickness: 18 ga.

* + - * 1. Gate Leaves: 18 feet 1 inch to 24 feet 0 inches (5486 to 7315 mm). Provided with 2 additional horizontal stiffeners 2 ft (610 mm) square to be welded behind 2 inch (51 mm) horizontal members.

Bracing: Provide diagonal adjustable length truss rods to prevent sagging. One truss rod per 8 ft (2438 mm) maximum of length of each gate panel.

Horizontal Rails (W x H x Thickness): 1-3/8 x 1-1/2 x 0.120 inches; 11 ga (35 x 38 x 3 mm). Punched to receive pickets and rivets. Stainless steel welded inside vertical members.

Pickets: Galvanized steel spaced at 3-15/16 inches (100 mm) face to face.

\*\* NOTE TO SPECIFIER \*\* Delete size and thickness of pickets not required.

Size: 3/4 inch (19 mm) square. Thickness: 14 ga.

Size: 3/4 inch (19 mm) square. Thickness: 16 ga.

Size: 3/4 inch (19 mm) square. Thickness: 18 ga.

Size: 1 inch (25 mm) square. Thickness: 14 ga.

Size: 1 inch (25 mm) square. Thickness: 16 ga.

Size: 1 inch (25 mm) square. Thickness: 18 ga.

* + - 1. Hardware: Galvanized steel or malleable steel to suit application.
				1. Latch: To have padlocking provision.
				2. Hinges: Grip post and frame firmly to prevent slippage. Load Capacity: 1,000 lbs (453.6 kg) and allow gate leaf to swing 180 degrees.
				3. Gate Keepers: For any leaf wider than 5 ft (1524 mm) to hold gate in open position.
				4. Double Leaf Gates: Center drop rod enabling one leaf to be made stationary while that latch will lock both leaves together.

\*\* NOTE TO SPECIFIER \*\* Delete square post size options not required.

* + - 1. Square Post Size: 3 inch (76 mm) square.
				1. For Gate Leaf Size: 3 to 4 ft (914 to 1219 mm).
			2. Square Post Size: 4 inch (102 mm) square.
				1. For Gate Leaf Size: 4 ft 1 inches to 8 ft (1244 to 2438 mm).
			3. Square Post Size: 6 inch (152 mm) square.
				1. For Gate Leaf Size: 8 to 12 ft (2438 to 3658 mm).
			4. Square Post Size: 8 inch (203 mm) square.
				1. For Gate Leaf Size: 12 ft 1 inches to 18 ft (3683 to 5486 mm).
			5. Square Post Size: 10 inch (254 mm) square.
				1. For Gate Leaf Size: 18 to 24 ft inches (5486 to 7315 mm).
		1. Ornamental Slide Gates:

\*\* NOTE TO SPECIFIER \*\* Delete style paragraph options not required. If more than one style is required clearly identify the extent of each on the Drawings.

* + - 1. Style: Aberdeen:

\*\* NOTE TO SPECIFIER \*\* Delete sliding and accessories options not required.

* + - * 1. Sliding: Single.
				2. Sliding: Double.
				3. Inner Channel Accessories: 4 inch (102 mm) ring.
				4. Inner Channel Accessories: 9 inch (229 mm) ring.
				5. Inner Channel Accessories: 6 inch (152 mm) square.
				6. Inner Channel Accessories: 4 inch (104 mm) star.
				7. Inner Channel Accessories: 9 inch (229 mm) star.
			1. Style: Canterbury:

\*\* NOTE TO SPECIFIER \*\* Delete sliding and accessories options not required.

* + - * 1. Single Sliding: 3 Rail.
				2. Single Sliding: 4 Rail.
				3. Double Sliding: 3 Rail.
				4. Double Sliding: 4 Rail.
				5. Inner Channel Accessories: 4 inch (102 mm) ring.
				6. Inner Channel Accessories: 9 inch (229 mm) ring.
				7. Inner Channel Accessories: 6 inch (152 mm) square.
				8. Inner Channel Accessories: 4 inch (104 mm) star.
				9. Inner Channel Accessories: 9 inch (229 mm) star.
			1. Style: Barcelona:

\*\* NOTE TO SPECIFIER \*\* Delete sliding and accessories options not required.

* + - * 1. Sliding: Single.
				2. Sliding: Double.
				3. Inner Channel Accessories: 4 inch (102 mm) ring.
				4. Inner Channel Accessories: 9 inch (229 mm) ring.
				5. Inner Channel Accessories: 6 inch (152 mm) square.
				6. Inner Channel Accessories: 4 inch (104 mm) star.
				7. Inner Channel Accessories: 9 inch (229 mm) star.
			1. Style: Guardian:

\*\* NOTE TO SPECIFIER \*\* Delete sliding, tops, and accessories options not required.

* + - * 1. Sliding: Single.
				2. Sliding: Double.

Finial Tops: Spear.

* + - * 1. Finial Tops: Ball.
				2. Finial Tops: Fleur.
				3. Picket Tops: Flat.
				4. Picket Tops: Pointed
				5. Inner Channel Accessories: 4 inch (102 mm) ring.
				6. Inner Channel Accessories: 9 inch (229 mm) ring.
				7. Inner Channel Accessories: 6 inch (152 mm) square.
				8. Inner Channel Accessories: 4 inch (104 mm) star.
				9. Inner Channel Accessories: 9 inch (229 mm) star.
			1. Style: Guardian Plus:

\*\* NOTE TO SPECIFIER \*\* Delete sliding, tops, and accessories options not required.

* + - * 1. Sliding: Single.
				2. Sliding: Double.
				3. Finial Tops: Spear.
				4. Finial Tops: Ball.
				5. Finial Tops: Fleur.
				6. Picket Tops: Flat.
				7. Picket Tops: Pointed
				8. Inner Channel Accessories: 4 inch (102 mm) ring.
				9. Inner Channel Accessories: 9 inch (229 mm) ring.
				10. Inner Channel Accessories: 6 inch (152 mm) square.
				11. Inner Channel Accessories: 4 inch (104 mm) star.
				12. Inner Channel Accessories: 9 inch (229 mm) star.

\*\* NOTE TO SPECIFIER \*\* Insert height required. Available in standard nominal heights from 3 to 8 ft. (914 to 2438 mm)Custom heights are also available contact the manufacturer for additional information.

* + - 1. Height: \_\_\_ ft (\_\_\_ mm).

\*\* NOTE TO SPECIFIER \*\* Insert width required. Swing gates can range in size from 3 ft (914 mm) single gates to 36 ft (10973 mm) double gates. Larger sizes are available upon request. Custom heights are also available contact the manufacturer for additional information.

* + - 1. Width, Nominal Center to Center of Posts: \_\_\_ ft (\_\_\_ mm).

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: Black.
			2. Color: White.
			3. Color: Brown.
			4. Color: Ensor Green.
			5. Color: Woodland Green.
			6. Color: As selected by the Architect.
			7. Gate Frame: Aluminum alloy 6063-T6.
				1. Square Members: 2 inch (51 mm) square, 0.94 lbs per ft per to ASTM B221.
				2. Frame is welded to top one piece track and top frame member.
				3. Two swivel type 8 bearing truck assembles for each leaf.
				4. Overhang: A minimum of 40 percent of opening size.
			8. Interior Horizontal Rails and Pickets.
				1. Aluminum "U" Channels (WxH) 1-3/8 x 1-1/2 inches (35 x 38 mm) and 11 gauge metal thickness.
				2. Rails: Punched to receive pickets and rivets and welded inside vertical external uprights.
				3. Pickets: Riveted to "U" channel using 1/4 inch (6 mm) industrial drive rivets. Pickets are welded to horizontal members.

Bracing: Provide diagonal adjustable length truss cable to prevent sagging. Provide one cable in each direction per 8 feet maximum of gate length.

Track: Provide an enclosed combination Easy Glider track and top rail aluminum extrusion weighing 3.72 lbs per ft (5.54 kg per m) that will withstand a 2,500 lbs (1134 kg) reaction load.

* + - * 1. Pickets: Pickets are galvanized steel spaced at 3-15/16 inches (100 mm) face to face. Size: 1 inch (25 mm) square. Thickness: 18 ga.
			1. Truck Assembly: Swivel type.
				1. Base Unit: Galvanized steel.
				2. Lubricated and Sealed Ball Bearing Rollers: Eight.

Roller Diameter: 2 inches (51 mm). Roller Width: 9/16 inch (14 mm).

* + - * 1. Two galvanized steel side rollers to assure alignment in track.
				2. Truck assemblies are held to post brackets using a 1/2 inch (13 mm) galvanized bolt and will withstand a 2,500 lbs (907 kg) reaction load.
				3. Brackets: Galvanized steel. Will withstand 5000 lbs (2268 mm) reaction load.
			1. Hardware: Provide with galvanized steel gate latch and keepers.
			2. Gate Posts: 4 inches (102 mm) square and weight 5.77 lbs per ft (8.59 kg per m).

\*\* NOTE TO SPECIFIER \*\* Delete the following configurations not required.

* + - * 1. Single Gates with Single Tracks: Require 3 gate posts. 1 latch post and 2 support posts.
				2. Single Gates with Dual Tracks: Require 5 gate posts. 1 latch post and 2 dual support posts.
				3. Double Gates with Single Tracks: Require 4 gate support posts.
				4. Double Gates with Dual Tracks. Require 8 gate posts; 4 dual support posts.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. PRIVACY PANELS
		1. Privacy Panels: Maverick Privacy Panels. Fabricated using the Aberdeen two rail platform with 11 gauge steel channel used to house 22 gauge interlocking galvanized boards.

\*\* NOTE TO SPECIFIER \*\* Insert height required. Available in standard nominal heights from 3 ft to 8 ft (914 to 2438 mm). Custom heights are also available. Contact manufacturer for additional information.

* + - 1. Height: \_\_\_ ft (\_\_\_ mm).
			2. Width, Nominal Center to Center of Posts: \_\_\_ ft (\_\_\_ mm).

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: Black.
			2. Color: White.
			3. Color: Brown.
			4. Color: Ensor Green.
			5. Color: Woodland Green.
			6. Color: As selected by the Architect.
				1. Rails: Two rail.

\*\* NOTE TO SPECIFIER \*\* Delete post size and thickness option not required.

* + - 1. Post Size: 4 inch (102 mm) square. Thickness: 11 ga.
			2. Post Size: 6 inch (152 mm) square. Thickness: 3/16 inch.
			3. Panels: 11 gauge galvanized steel.

\*\* NOTE TO SPECIFIER \*\* Delete brackets option not required.

* + - 1. Brackets: Swivel.
			2. Brackets: Straight.
	1. MATERIALS
		1. Fence Boards: 6 inches wide of 22 gauge steel minimum, conforming to requirements of ASTM A653 and have a G-90 hot-dipped galvanized coating, zinc coating (0.90 oz per sq ft).
		2. Rails: Horizontal U" channels, 1-3/8 x 1-1/2 inch (35 x 38 mm) with 11 gauge wall thickness. Galvanized to G90 zinc coating 0.90 oz per sf in conformance with ASTM A 653/A 653M with a 50,000 psi (344 MPa) yield strength. Mechanically punch to receive drive rivets. Attach rails to brackets using one-way security fastener.
		3. Fence Posts: Galvanized square steel tubular members in conformance with ASTM A 787 with a G90 zinc coating of 0.90 oz per sq ft and steel with a 45,000 psi (310 MPa) yield strength.

\*\* NOTE TO SPECIFIER \*\* Select the following two paragraphs for use with gates and delete if not required.

* + 1. Gate Posts: Galvanized square steel tubular members in conformance with ASTM A 653 with a G90 zinc coating of 0.90 oz per sq ft and steel with a 45,000 psi (310 MPa) yield strength.
		2. Gates and Gate Frames: As specified.
		3. Finishes:
			1. Steel Parts: Galvanized to prevent corrosion.
			2. Pre-treat and clean surfaces to accept finish coat.
			3. Coating: TGIC polyester resin powder applied by electrostatic spray to 3.0 mil thickness.
			4. Finish: Baked 15 to 20 minutes at 400 degrees F (204 degrees C).
	1. ACCESSORIES
		1. Setting Materials
			1. Concrete: Minimum 28 day compressive strength of 2,500 psi.
			2. Plated Post: Provide 3/8 inch steel base plates with 4 holes for surface mounting where indicated.
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until boundaries and grading has been properly prepared.
		2. Verify that property lines and legal boundaries of work are clearly established.
		3. If preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
	2. PREPARATION
		1. Clean and or prepare surfaces thoroughly prior to installation.
		2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
	3. INSTALLATION
		1. Install in accordance with manufacturer's instructions.
		2. Set post uniformly as indicated on the Drawings.
		3. Set posts plumb in concrete having a diameter 4 times the diameter of the post, and 6 inches deeper than the bottom of the post. Forms are not necessary or recommended.
		4. Check each post for vertical and top alignment.
		5. Attach panels to brackets using one way security bolts.
		6. Install and secure specified post tops.

\*\* NOTE TO SPECIFIER \*\* Select the following paragraphs for use with gates and delete if not required.

* + 1. Install gate posts a minimum of 36 inches (914 mm) into firm soil. Diameter of the footing shall be a minimum of 4 times the diameter of the post. Footing shall be 6 inches (152 mm) deeper than the bottom of the posts, or a minimum of 42 inches (1067 mm). Finish concrete with a slope for all water to drain away from post.
		2. Attach all hardware to gate in such a way that it cannot be removed by unauthorized persons.
		3. Adjust gate as required. Make sure that gate rolls smoothly free of binding.
		4. Attach latch and make sure that gate is received by latch in a secure manner.

\*\* NOTE TO SPECIFIER \*\* Delete the following paragraph if privacy panels are not required.

* + 1. Install privacy panels in accordance with the manufacturer's instructions.
	1. ERECTION TOLERANCES
		1. Maximum Variation From Plumb: 1/4 inch (6 mm).
		2. Maximum Offset From Indicated Position: 1 inch (25 mm).
		3. Minimum distance from property line: 6 inches (152 mm).
	2. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion.
	3. SCHEDULES

\*\* NOTE TO SPECIFIER \*\* Retain Paragraph below if required to suit project requirements. Identify products by name on the Drawings or use this paragraph to define the location of each type of material to be used. The following are some examples of schedule references. Edit as required to suit project or delete and identify products on the Drawings.

* + 1. :
		2. :

END OF SECTION