

CAUTION!!!
 CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING EXCAVATION OPERATIONS TO AVOID AND PROTECT EXISTING UNDERGROUND UTILITIES.

The underground utilities shown herein were plotted from available information and do not necessarily reflect the actual existence, nonexistence, size, type, number, or location of these or other utilities. The general contractor shall be responsible for verifying the actual location of all underground utilities, shown or not shown, and said utilities shall be located in the field prior to any grading, excavation, or construction of improvements. These provisions shall in no way absolve any party from complying with the Underground Facility Safety and Damage Prevention Act, Chapter 319, RSMo.

AERO GRADE SPECIFICATION



ALUMINUM ORNAMENTAL FENCES AND GATES SECTION 02832

Part 1-General

- 1.0 Description:
- A Furnish and install aero grade aluminum ornamental fence and accessory materials as manufactured by Delgard Premier Aluminum Fencing and as indicated on the drawings and as specified. The work includes, but is not necessarily limited to, the following
 - 1 Fence, gates and related hardware
 - B Related Sections:
 - 1 Section 03300- Cast-in-place concrete
- 1.02 Quality Assurance:
- Tests:
- AAMA 603- covers test procedures for pigmented organic coatings on extruded aluminum
 - AAMA 605- covers high performance organic coatings on architectural extrusions and panels
 - ASTM D2747- humidity resistance of 1000 hours
 - ASTM B117- salt spray resistance of 1000 hours
 - Accelerated weathering for 500 hours under Method 6152 of Federal Test Method 141 shall show no adhesion loss, with only slight fading, chalking and water staining
 - Outdoor weathering shall show no adhesion loss, checking or crazing, with only slight fade and chalk when exposed for one year in Florida facing south at a 45° angle
 - Minimum hardness of 2H using ASTM D3363
- 1.03 Submittals:
- 1 Manufacturer's product literature and certification
 - 2 Shop drawings in sufficient detail to show fabrication, anchorage, and interface of the work. Include plan layout, accessories, fittings and hardware
- 1.04 Warranty:

The entire fence system shall have a limited lifetime warranty against defects in workmanship and material while the finish must also carry a limited lifetime warranty against cracking, chipping or peeling.

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AERO GRADE SPECIFICATION

Part 2- Products

- 2.01 Manufacturers:
- A Delgard Premier Aluminum Fencing
 8600 River Road
 Delair, New Jersey 08110
 Phone (800) 235-0185
 Fax (856) 663-1297
- 2.02 Materials:
- A Aluminum Extrusions: The structural members of the fence shall be extruded from 6061-T6 (or an equivalent performing alloy registered and recognized in the Aluminum Standards and Data book produced by the Aluminum Association) with a minimum ultimate strength of 38,000 PSI and a minimum yield strength of 35,000 PSI. Pickets shall be extruded Aluminum manufactured from 6060-T5 alloy (or equivalent performing alloy registered and recognized in the Aluminum Standards and Data book produced by the Aluminum Association) with a minimum ultimate strength of 36,000 PSI and a minimum yield strength of 32,000 PSI.
 - B Fasteners: All fasteners shall be stainless steel with a zinc dichromate coating for enhanced corrosion resistance. Phillips head screws shall be used to attach the pickets to the rails while self-drilling, self-tapping (Phillips) head screws shall be used to connect the rails to the posts. All screws shall be painted to match the finish of the fence.
 - C Accessories: All castings used for post caps, finials, scrolls, circles, rail/base attachments and Latches shall be made from zinc or aluminum. Only stainless steel fasteners may be used with these accessories. All accessories will be painted to match the finish of the fence.
- 2.03 Finish:
- A Pretreatment: Before the finish is applied, a five-stage pretreatment must be applied to assure maximum adhesion and corrosion resistance
 - Stage 1: High alkaline cleaner to prepare the surface
 - Stage 2: Water rinse
 - Stage 3: Combination of chromic, phosphoric and hydrofluoric acids that produce the chrome-phosphate conversion coating for maximum adhesion and corrosion
 - Stage 4: Water rinse
 - Stage 5: Water rinse

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- B Coating: After the pretreatment, the metal is dried and the paint is then applied. The fence system shall have an electrostatically applied baked-on acrylic finish that meets or exceeds industry standard tests

Color: The color to be selected by the architect from manufacturer's standard color selections
- 2.04 Construction:
- A Horizontal Rails: Rails shall be 1.5" horizontal x 1.125" vertical "U" channels. Pickets shall pass through holes punched in top rail. The rails shall have a top wall thickness of .060" and a side wall thickness of .070". The number of rails shall vary according to manufacturer's specifications.
 - B Pickets: Pickets shall be fastened to the rails using zinc-coated stainless steel screws painted to match the color of the fence. Screws shall be used on only one side of the rail leaving the other side with a clean appearance. Pickets shall be 1" x 5/8" square with a .050" wall thickness. Welding the pickets to the rails will not allow the fence to rake and is unacceptable.
 - C Posts: Posts shall be 2 1/2" square with a .060" wall thickness at the sides and a 100" in the corners. Gate posts shall be the same. A gate requires a gate post on both sides. A cast aluminum cap is to be used on all posts.
 - D Gates: Swing gates shall be fabricated to manufacturer's standard methods. Standard hardware should be used.
 - E Strength: Assembled sections should be able to support a minimum of 300 pounds of vertical load at the midpoint of any horizontal rail without permanent deformation.
- 2.05 Concrete:
- A Comply with requirements specified in Section 03300- Cast-in-place concrete
- Part 3- Execution
- 3.01 Surface Conditions:
- A Examine the areas and conditions under which work of this section will be performed. Correct

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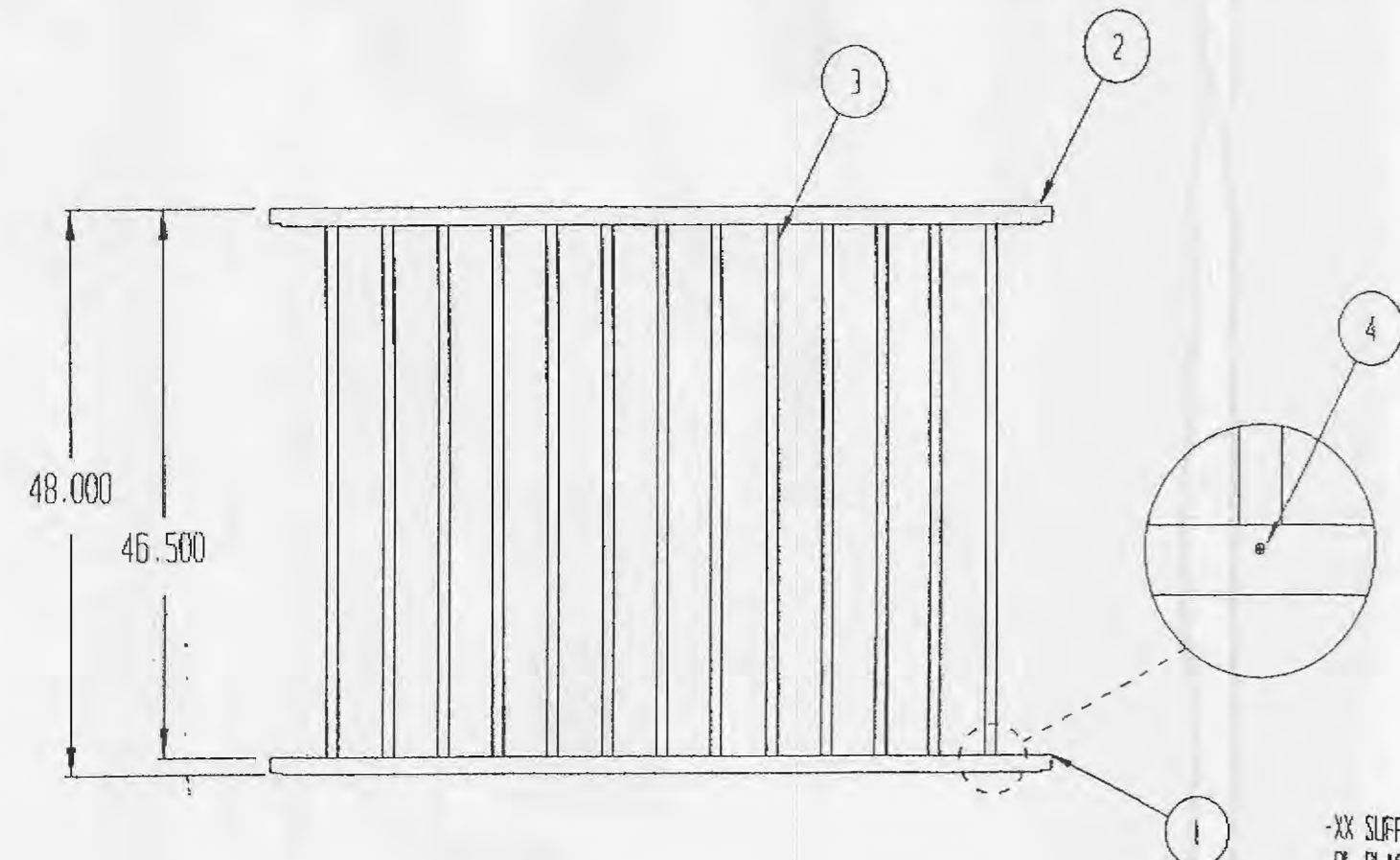
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- conditions are detrimental to timely and proper completion of work. Do not proceed until unsatisfactory conditions are corrected.
- 3.02 Installation:
- A Follow manufacturer's instructions for the installation of all gates and fencing

Installation: All material must be checked upon receipt at the job site prior to installation to check for any damage that may have occurred during transport. The fence system must be stored in a safe and dry environment so as to protect it from any potential damage. This aluminum ornamental fence system must be installed with manufacturer's standard procedures.
- 3.03 Excavating:
- A Drill holes for post footings in firm, undisturbed or compacted soil, strictly adhering to the dimensions and spacing shown.
- 3.04 Setting Posts:
- A Remove loose and foreign materials from sides and bottoms of holes, and moisten soil prior to pouring concrete. Center and align posts in holes. Place concrete around posts in a continuous pour and vibrate or tamp for consolidation.
 - B Check each post for vertical and top alignment. Hold in position during placement and finishing operation. Trowel tops of footings and slope or dome to direct water away from posts.
 - C Set keeps, stops, sleeves and other accessories into concrete as required. Keep exposed concrete surfaces moist for at least seven days after placement, or cure with a membrane curing material. Grout-in those posts which are set into sleeved holes, concrete constructions or rock excavations using non-shrink Portland cement grout.
- 3.05 Installing Gates:
- A Install gates, plumb level, and secure for full opening without interference. Install ground-set items in concrete for anchorage in accordance with manufacturer's recommendations as approved by the architect. Lubricate and adjust the hardware for smooth operation.
- End of Section

- FINISH/ SELF-TAP: 012500 - BLACK, 012502 - WHITE, 013002 - BRONZE (6x3/4"), 012500-HG - HUNTER GREEN
- DELTAIR: -17 BLACK, -18 WHITE, -20 BRONZE, -79 HUNTER GREEN

ITEM	DESCRIPTION	DWG. NO.	QTY.	UNIT	PART NO.
1	AERO FENCE RAIL - SLOTTED	C33480			0F4002-XX
2	AERO FENCE RAIL - BLANK	C33502			0F4003-XX
3	AERO 40° SQUARE PICKET	C33512	13		0F4101-XX
4	1/2" SELF-TAP SCREW		26		SEE SCHEDULE LEGEND



- XX SUFFIX: -R BLACK, -W WHITE, -BZ BRONZE, -HG HUNTER GREEN

DELTAIR GROUP LLC									
8600 RIVER ROAD, DELAIR, N.J. 08110 609-663-2900 FAX 609-663-1297									
PART	DESCRIPTION	DATE	SCALE	DRAWN	CHECKED	BY	DATE	BY	DATE
A	CHANGED TO 6' LENGTH	03/04/99							
SYN.	REVISION	DATE	ASSY	ALUM.	03-04-99	NTS	JK		

	DELGARD RESIDENTIAL	DELGARD AERO	DELGARD COMMERCIAL
FENCE POSTS	2" x 2" x .060"	2.5" x 2.5" x .060" 0.1 THK. @ CORNERS	5" x 2.5" x .075"
GATE POSTS	2" x 2" x .125"	2.5" x 2.5" x .060" 0.1 THK. @ CORNERS	4" x 4" x .125" 6" x 6" x .188"
PICKETS	5/8" x 5/8" x .050"	1" x 5/8" x .050"	1" x 1" x .065"
STRINGER	1" x 1"	1.5" x 1.125"	1.5" x 1-5/8"
STRINGER VERTICAL WALLS	.08	.070"	.100"
STRINGER HORIZONTAL WALLS	.055	.060"	.070"
SPACE BETWEEN PICKET STYLES	A,B,D,E: 3-13/16" H,I: 1-7/64"	A,D,E,G: 3-31/32"	M,T: 3-31/32"
COLORS	BL, WH, BZ, HNT GRN	BL, WH, BZ, HNT GRN	BL, WH, BZ, HNT GRN
HEIGHT	3', 3-1/2', 4', 4-1/2', 5', 6'	4', 4-1/2', 5', 6'	4', 5', 6', 8'
STANDARD MODULE LENGTH	72-3/4" ON CENTER	100-13/16" ON CENTER 71" ON CENTER (2 RAIL ELBA)	71" ON CENTER
GATE SIZES	3', 3-1/2', 4', 5', 6'	3', 4', 5', 6', 7', 8'	3', 3-1/2', 4', 5', 6', UP TO 8'
ALUMINUM ALLOY/TEMPER	PICKETS 6060-T5 RAILS 6061-T6 POSTS T6	PICKETS 6060-T5 RAILS 6061-T6 POSTS-T6	PICKETS 6060-T5 RAILS 6061-T6 POSTS-T6
MINIMUM ULTIMATE STRENGTH (TENSION)	6060-T5 36 KSI 6061-T6 38 KSI	6060-T5 36 KSI 6061-T6 38 KSI	6060-T5 36 KSI 6061-T6 38 KSI
MINIMUM YIELD STRENGTH (TENSION)	6060-T5 32 KSI 6061-T6 35 KSI	6060-T5 32 KSI 6061-T6 35 KSI	6060-T5 32 KSI 6061-T6 35 KSI
FASTENERS	STAINLESS STEEL PAINTED TO MATCH FENCE	STAINLESS STEEL PAINTED TO MATCH FENCE	STAINLESS STEEL PAINTED TO MATCH FENCE
FINISH	FLEXIBLE ACRYLIC BAKED ON FINISH	FLEXIBLE ACRYLIC BAKED ON FINISH	FLEXIBLE ACRYLIC BAKED ON FINISH

GATE ACCESSORIES



NOTE: THE FENCE DETAILS HAVE BEEN SHOWN FOR REFERENCE ONLY AND HAVE BEEN OBTAINED FROM THE MANUFACTURER.

Address of Site:
 1361 Sunburst Drive
 O'Fallon, MO 63366

 12221 Big Bend Road, St. Louis, Missouri 63122 314-822-4800 Fax 314-822-9266	SITE DEVELOPMENT ENGINEERING, INC. PLANNING • SURVEYING • CIVIL ENGINEERING		
	Common Ground Amenities at Sunset Ridge Estates		
	DATE: July 25, 2001 CHECKED BY: SDR	JOB NO.: 201-023 SCALE: 1" = 10'	DRAWN BY: JJA SHEET: C8
	FENCE MANUFACTURER DETAILS		
REV.: December 18, 2001 City of O'Fallon Comments January 4, 2002 City of O'Fallon Comments January 23, 2002 City of O'Fallon Comments		SHEET: C8	