SECTION 05 51 36

PREFABRICATED ALUMINUM RAMPS AND PLATFORMS

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\*\* NOTE TO SPECIFIER \*\* Redispan Ramps; aluminum modular wheelchair ramps.
This section is based on the products of Redispan Ramps, which is located at:
239 S. Fehr Way
Bay Shore, NY 11706
Tel: 631-987-5206
Fax: 631-482-9422
Email: [request info (bmccoy@redispanramps.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=Redispan+Ramps&coid=53212&rep=&fax=631-482-9422&message=RE:%20Spec%20Question%20(05536rds):%20%20&mf=)
Web: <https://redispanramps.com/arcat-landing-page/>
 [ [Click Here](https://www.arcat.com/arcatcos/cos53/arc53212.html) ] for additional information.
Redispan Ramps are made of high quality fastened 6005A-T5 aluminum, and are designed to last season after season without virtually any maintenance.
Our commercial grade installation process is simple and efficient, and can be completed with just two installers, saving both time and money.
Our durable slip-resistant decking surface ensures safety and reliable traction all throughout the year, in all weather conditions.
Our unique manufacturing process is designed with the installer and dealer in mind down to the very last detail. Custom widths and lengths can be produced in order to meet any need in the field.
Our Modular Ramps comply with ADA specifications and offer quick and convenient installation, re-configuration or removal. This innovative modular wheelchair ramp is designed to use less hardware and have a stylish, contemporary look. It is designed to address the accessibility needs of the residential and commercial market. These Modular wheelchair ramps are far superior to ordinary modular ramps and old-fashioned wooden construction ramps that need constant maintenance and periodic replacement. These ramps are perfect for use with wheelchairs, power chairs, scooters, walkers and most other mobility needs.

1. GENERAL
	1. SECTION INCLUDES

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

* + 1. Modular ramp system; commercial.
	1. RELATED SECTIONS

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

* + 1. Section 32 14 23 - Asphalt Unit Paving.
		2. Section 03 30 00 - Cast-in-Place Concrete.
		3. Section 05 50 00 - Metal Fabrications.
		4. Section 05 51 33 - Metal Ladders.
		5. Section 05 52 13 - Pipe and Tube Railings.
		6. Section 06 10 00 - Rough Carpentry.
	1. REFERENCES

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

* + 1. Aluminum Association: Aluminum Design Manual - Specifications for Aluminum Structures.
		2. Americans with Disabilities Act (ADA).
			1. American with Disabilities Act Handbook; Publication Number EEOC-BK-19.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data:
			1. Manufacturer's data sheets on each product to be used.
			2. Preparation instructions and recommendations.
			3. Storage and handling requirements and recommendations.
			4. Typical installation methods.

\*\* NOTE TO SPECIFIER \*\* Delete if not applicable to product type.

* + 1. Verification Samples: Ramp treads showing slip resistant ramp surfaces.
		2. Shop Drawings: Include layout, unit locations, unit identifications, connection details, support items, details and dimensions of materials, construction and finish. Include relationship with adjacent construction.
		3. Delegated-Design: For systems indicated by a Registered Professional Engineer, Certified and Licensed in the state or municipality the project is located.
			1. Details of fabrication of components.
			2. Signed and sealed design calculations for systems indicated used to determine load carrying capacities.
			3. Analysis data, signed and sealed.
		4. Sizing methods and calculations, signed and sealed.
	1. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
		2. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
		3. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

\*\* NOTE TO SPECIFIER \*\* Include mock-up if the project size or quality warrant the expense. The following is one example of how a mock-up on 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: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
			1. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
			2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
			3. Retain mock-up during construction as a standard for comparison with completed work.
			4. Do not alter or remove mock-up until work is completed or removal is authorized.
	1. PRE-INSTALLATION CONFERENCE
		1. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
	2. DELIVERY, STORAGE, AND HANDLING
		1. Inspect components upon delivery to ensure the proper material shave been received and are not damaged or defective. Remove damaged or defective materials from the site.
		2. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
		3. Protect from damage due to weather, excessive temperature, and construction operations.
	3. WARRANTY
		1. Manufacturer's standard limited 5 year warranty against any defect in materials and workmanship.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Redispan Ramps, which is located at: 239 S. Fehr Way; Bay Shore, NY 11706; Tel: 631-987-5206 ; Fax: 631-482-9422; Email: [request info (bmccoy@redispanramps.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=Redispan+Ramps&coid=53212&rep=&fax=631-482-9422&message=RE:%20Spec%20Question%20(05536rds):%20%20&mf=); Web: <https://redispanramps.com/arcat-landing-page/>

\*\* 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.

* 1. MODULAR ACCESS SYSTEM; COMMERCIAL
		1. Redispan Inc. Modular Access Ramps and Accessories: Prefabricated aluminum modular units as manufactured by Redispan Inc. consisting of ramp sections, platforms, rails, and supports that are selected to provide adequate ramping height. The modular design allows for easy assembly and relocation.
		2. Performance and Design Requirements:
			1. Compliant with ADA wheelchair ramp specifications.

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

* + - 1. System must meet the standards set forth by state, local, and city authorities having jurisdiction prior to installation and may be subject to inspection after installation.
			2. Aluminum Structural Design: Conform to the aluminum association specifications and guidelines for aluminum structures.
			3. Ramps and Platforms:
				1. Uniform Live Load Capacity: 100 lbs per sq ft (4.79 kPa).
				2. Concentrated Vertical Load Capacity: 300 lbs (138 kg).
				3. Ramp Sections: To have a 2 inches (51 mm) minimum curb height and/or a barrier which does not allow passage of a 4 inch (102 mm) diameter sphere.
			4. Guards and Handrails: The following loadings shall not be applied simultaneously.
				1. To resist a single concentrated load of 200 lbs (90.7 kg) applied at any point in any direction at the top of the guard or handrail and to transfer load to the structure.
				2. To resist a load of 50 lbs per linear ft (74.4 kg per linear m) applied horizontally at the required guard height and a simultaneous load of 100 lbs per linear ft applied vertically downward at the top of the guard.
				3. Infill Panel:

Consists of 0.25 inch (0.6 mm), 10 gauge steel 4 x 4 inch OPG (102 x 102 mm) square galvanized and powder coated industrial wire.

To resist a 50 lbs horizontal load applied over a 1 sq ft (2.39 kN horizontal load applied over 1 sq m) area at any point in the system.

* + 1. Ramps:
			1. Materials:
				1. Aluminum construction from alloy 6005A T/5.
				2. Structural Fasteners: Attach ramps together and handrails to ramps.

Grade 5 strength or higher. Zinc plated or zinc chromate finish.

* + - 1. Design and Fabrication: Ramp units.
				1. Built to shape, size, and finish as indicated on approved drawings.
				2. Surface: Continuous extruded slip resistant surface. No gaps greater than 1/4 inch (6 mm).
				3. Construction: Interlocking 11 gauge, 6 inch (152 mm) slip resistant extruded treads fastened to the side rails.
				4. Bottom of Ramps: Must accept a full-width pivoting bevel with a slip resistant surface from ramp to ground transition.
				5. All Fasteners: Captured on outside of ramp or underneath. No fasteners are to protrude into the inner usable ramp or curb surface.
				6. Side Rail Curb Height: 2 inches (51 mm). On all ramp sections.
				7. Upper Handrail Height: 34-1/2 inch (876 mm).
				8. Lower Handrail Height: 24 inch (610 mm).
				9. Guardrail Height: 42 inches (1067 mm).

\*\* NOTE TO SPECIFIER \*\* Inside handrail height applies to 2 ft (610 mm) ramp lengths. Delete options not required.

* + - * 1. Inside Handrail Height: 36 inches (914 mm).
				2. Assembled Ramp Slope: 1:12.

\*\* NOTE TO SPECIFIER \*\* Ramps are available in 48 inch (1219 mm) and also 54 inch () width. Contact the manufacturer for more detailed information. Delete ramp options not required.

* + - * 1. Ramp Usable Clear Width: 48 inches (1219 mm).

Width to Outside of Support Feet: 53-3/16 inch (1351 mm).

* + - * 1. Ramp Length: 5 ft (1524 mm).

Width to Outside of Handrails: 52-3/16 inch (1326 mm).

Width to Outside of Support Feet: 53-3/16 inch (1351 mm).

Weight; Solid Plate: 100 lbs (45.4 kg).

Weight Capacity: 100 lbs per sq ft (4.79 kPa).

* + 1. Platforms:
			1. Materials:
				1. Aluminum construction from alloy 6005 T6.
			2. Design and Fabrication:
				1. Prefabricated to shape, size, and finish as indicated on approved drawings.

Designed for variable height adjustment.

* + - * 1. Surface: Continuous extruded slip resistant surface, knurled to make slip resistance bi-directional. No gaps greater than 1/4 inch (6 mm).
				2. Construction: Interlocking 11 gauge, 6 inch (152 mm) treads fastened to the side rails.
				3. Minimum Platform Height without Support Tubes: 3-1/2 inch (89 mm).
				4. Handrails:

Upper Handrail Height: 36 inch (914mm).

Lower Handrail Height: 24 inch (610 mm).

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

* + - 1. Platform Usable Size: 5 x 5 ft (1524 x 1524 mm) with 5 ft (1524 mm) Handrails.
				1. Outer Dimensions: 65.5 x 65.5 inches (1664 x 1664 mm).
				2. Width to Outside of Support Feet: 65.75 x 65.75 inch (1670 x 1670 mm).
				3. Platform with Two-Line Handrail: 95.5 lbs (43.3 kg).
				4. Platform with industrial grate: 114.7 lbs (52 kg).
				5. Weight Capacity: 100 lbs per sq ft (4.79 kPa).
			2. Platform Usable Size: 8 x 5 ft (2438 x 1524 mm). Handrails: Two, 5 ft (1524 mm) handrails and one, 8 ft (2438 mm) handrail.
				1. Outer Dimensions: 101.5 x 65.5 inches (2578 x 1664 mm).
				2. Width to Outside of Support Feet: 101.75 x 65.75 inch (2584 x 1670 mm).
				3. Platform with Two-Line Handrail: 149.3 lbs (67.7 kg).
				4. Platform with 0.25 inch (6 mm) wire infill panel: 186.4 lbs (84.5 kg).
				5. Weight Capacity: 100 lbs per sq ft (4.79 kPa).
		1. Transition Plates:
			1. Upper (L x W): 4 x 35-3/8 inch (102 x 898 mm).
			2. Lower (L x W): 6 x 35-3/8 inch (152 x 898 mm).
			3. Ground (L x W): 6 x 35-3/8 inch (152 x 898 mm).
		2. Support Leg Assemblies: Legs install perpendicular to ground plane. Vertical loads to transmit axially through legs.
			1. Designed to support ramp and platform sections specified.
				1. Adjustable for variations in height.
			2. Designed to hold support tubes and legs vertical in all locations.
			3. Support Tubes and Legs: A minimum wall thickness of 0.125 inch (3 mm).
			4. Materials:
				1. Aluminum alloys 6005A-T5, with aluminum feet.
				2. Fasteners: Grade 5 strength or higher with zinc plated or zinc chromate finish.
			5. Aluminum Brackets: Supplied for attachment of ramps and/or platforms to the proper support tube or leg.
			6. Legs: 6 x 6 inch (152 x 152 mm) solid 10 gauge aluminum foot.
		3. Handrails: 1-1/2 inch (38 mm) diameter.
			1. Materials: All aluminum construction from alloys 6061-T6 or 6005A T6.
			2. Provided along both sides of ramp segments.
			3. Gripping Surfaces: Smooth and continuous throughout ramp sections, steps, and platforms, returning to a guard that is not more than 1/4 inch (6 mm) from the end of handrail termination.
			4. Top of Handrail Gripping Surface: Mounted between 34 and 36 inch (864 and 914 mm) above the ramp surface. Guards shall form a protective barrier 42 inches (1067 mm) high, and pass the 4 inch (102 mm) sphere test.
			5. Top of Intermediate Rail: When present, mounted between 18 and 22 inches (457 x 559 mm) above the ramp surface.
			6. Handrail Tubes: Deburred and sharp edges removed from gripping surfaces.
			7. Architectural Handrail Finish: Brushed.
				1. Curb: 1-1/2 x 2 inch (38 x 51 mm) curb on all platform handrails located above platform deck Platform Sections: To have a 2 inches (51 mm) minimum curb height and/or a barrier which does not allow passage of a 4 inch (102 mm) diameter sphere.
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly constructed and prepared.
			1. Verify that field measurements are as indicated on the placement of plans.
		2. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.
	2. PREPARATION
		1. Clean 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, approved submittals, and in proper relationship with adjacent construction.
	4. FIELD QUALITY CONTROL
		1. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.

\*\* NOTE TO SPECIFIER \*\* Include if manufacturer provides field quality control with onsite personnel for instruction or supervision of product installation, application, erection or construction. Delete if not required.

* + 1. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.
	1. CLEANING AND PROTECTION
		1. Clean products in accordance with the manufacturers recommendations.
		2. Touch-up, repair or replace damaged products before Substantial Completion.
		3. Periodic maintenance per manufacturer's instructions is required to maintain optimal performance and useful life of product.

END OF SECTION