SIMPLEX CEILINGS
A DIVISION OF INTALITE INC.

CURVED DESIGNER SERIES
SPECIFICATION DATA

This specification includes the **Curved Designer** ceiling system including suspension systems and components along with related work such as mechanical air grills, diffusers, sprinklers, lighting fixtures, etc.

PART 1. GENERAL

A. SUBMITTALS

Submittals should include the following items:

A1. Product information: submit manufacturer's product data for each type of product specified.

A2. Shop drawings: submit shop drawings for curved reflected ceiling plans and coordinating penetrations and ceiling mounted items. Show the following details:

a. Details and reflected ceiling plans for the Curved Designer Series;

b. Clearly illustrate all components of the Curved Designer suspension and components;

c. System assembly details and connections to building components;

d. Location and direction of light fixtures, diffusers, speakers and other finish items;

e. Framing and support details for work supported by acoustical ceiling suspension system;

f. List of materials, dimensions, hanger fastenings, and any special details.

A3 Samples:

Submit the following:

a. Curved Designer panel minimum 18 inch (450 mm) piece of each type and finish c/w acoustical core medium used;

b. 18 inch (450 mm) long sample of each of the extruded aluminum suspension system component in the required finish;

c. 18 inch (450 mm) long sample of exposed peripheral moldings and trims in the required finish.

A4. Qualification data:

For firms and persons specified in the "Quality Assurance" section to demonstrate their capabilities and experience, submit lists of completed projects with project names and addresses, and other requested information.

A5. Control documentation:

a. Manufacturer's specification including reports and other pertinent data as required testifying compliance with the project specification.

b. Manufacturer's storage, installation, cleaning, maintenance instructions and recommendations.

c. Manufacturer's guarantee on material and factory workmanship.

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B. QUALITY ASSURANCE

B1. Manufacturer and Installer Qualifications

Provide Curved Designer metal ceiling components produced by a single manufacturer with resources adequate to deliver a product of consistent quality in terms of appearance and physical properties for all project scopes and scales without risk of delay or interruption.

Provide suspension system components produced by a single manufacturer to provide compatible components for a complete curved metal panel ceiling system installation.

Installation work to be performed by a firm whose personnel have no less than three (3) years of successful experience on projects of similar size, requirements and complexity.

B2. Regulatory Requirements

Compliance with specific standards to be verified with applicable governing agencies for the following:

The system to be installed should be rated Class A for fire performance with a flame spread index of 25 or less and a smoke developed rating of 50 or less when tested according to **ASTM** method **E 84**.

The system to be installed should be certified to comply with structural, wind uplift and seismic requirements of governing codes currently in effect and with these specifications requirements.

B3. Mock-up

Prior to beginning installation, erect a mock-up section in a pre-determined location using all system components. Mock-up should be installed in an area where it can become part of the final installation, if accepted.

C. DELIVERY, STORAGE AND HANDLING

C1. Deliver system components in manufacturer's original unopened packages clearly labeled with the following information: project number, item number and quantity, manufacturer's name and address, client name and address and site address;

C2. Store components in a fully enclosed dry space where they will be protected against damage from moisture, direct sunlight, surface contamination and other construction activities;

C3. Respect prescribed stacking instructions to prevent damage to the components;

C4. Handle components in a manner to prevent damage to the surfaces and edges and prevent distortion and other physical damage.

D. PROJECT SITE CONDITIONS

Begin system installation only after spaces are enclosed and weather-tight, and after all wet work and overhead work has been completed.

Prior to starting installation, allow materials to reach ambient room temperature and humidity intended to be maintained for normal occupancy.

Coordinate with other work supported by or penetrating through the ceiling.

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E. EXTRA MAINTENANCE MATERIAL

Provide extra material, matching installed material, in manufacturer's original packages and clearly labeled as attic stock as specified in DELIVERY, STORAGE AND HANDLING section.

Deliver extra stock and access tools to owner's representative.

PART 2. PRODUCTS

2.1 MANUFACTURER

Provide a Curved Designer system manufactured by:

Simplex Ceilings, a division of **Intalite Inc**.
255 Montpellier, St-Laurent, Québec,
Canada, H4N 2G3
Tel: 514-744-3323
Fax: 514-744-2716

2.2 MATERIALS SPECIFICATION

Sheet metal characteristics: Form metal panel to fit specified grid module from sheet metals selected for their surface flatness, smoothness, and freedom from surface blemishes where exposed to view in finished unit. Do not use materials whose exposed surfaces exhibit pitting, seam marks, variations in flatness exceeding those permitted by referenced standards for stretched-leveled metal sheet, stains, discolorations, or other imperfections.

1. Aluminum sheet: Complying with **ASTM B 209**, alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with not less than the strength and durability properties of the alloy and temper designated below:

A. Alloy and Temper for Color-Coated Finish: **3003-H14** or as standard with manufacturer.

2. Curved Designer: Brake formed from aluminum complying with **ASTM B 209** in adequate thickness and factory curved to specified radius. Segmenting panels and/or suspension will not be acceptable.

A. Fire Rating: All metal pans and associated suspension systems are made entirely of noncombustible materials and meet all known building code requirements.

B. Material: Aluminum type **3003-H14**

C. Panels: The ceiling panels are to be brake formed and curved to the specified radius. Radius shape to be kept consistent using a precise pre-manufactured curved aluminum stiffener in an adequate thickness permanently fixed to the panel edge to maintain the precision and integrity of the curved radius. Stainless steel springs are affixed to the curved stiffener with riveted indexing bushings.

D. Accessibility: System is 100% accessible. Every panel can be demountable with a downward motion and then by removing the torsions springs from the slotted suspension.

E. Thickness: Minimum 0.040" thickness. 0.063" minimum required for exterior applications. Thickness is subject to application and curved panel span.

F. Size: Standard sizes are **24" x 24", 24" x 48", 24" x 72"**
Custom sizes are available.

G. Edge details: Butt (closed) joint as indicated on drawings.

H. Perforation: Select from Simplex Ceilings standard perforation pattern or from Simplex' "Make Your Own" brochure.

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I. Finish: Baked enamel finish complying with coating manufacturer's written instruction for pre-treatment, application, baking and minimum poly film thickness. Also Select from one of the custom finishes as shown in Simplex' "Finishes Binder". Custom finishes are available.

2.3 SUSPENSION SYSTEM

A. Primary suspension: Minimum 12 gauges pre-stretched galvanized steel wire.
Provide all necessary hardware such as factory pre-indexed splices, hold down clips and hook-away fasteners assembly.

B. Secondary suspension: Provide secondary suspension members consisting of extruded aluminum components in the "T" shape of standard 6063T5 alloy that will meet structural requirements as defined in **ASTM 635** and **ASTM636** for direct hung ceilings.

When required for the application install required bracing for seismic restraint in accordance with **ASTM E 580** and in accordance with local building code regulations.

C. Main runners: Factory curved to specified radius to form a vault, valley or combination of both with a minimum radius of 6 feet. Main runner Tees to be factory slotted to accept factory located panel torsion springs.

D. Cross runners: Nominal 24 inch or to the length required to suit panel width designed to connect to main runners with pre-indexed angle coupler factory attached to cross runner Tee.

2.4 ACCESSORIES

Custom panels, trim pieces, moldings and other design particularities are to be manufactured to match the ceiling panels with respect to material, finish and texture.

A. Exposed edge moldings and trims: Provide exposed members as indicated or required for the edge of the ceiling, fixture trim, beams, fascias of metal and finish matching acoustical Curved Designer ceiling units.

B. Formed trim: Install factory curved and assembled mold and trim with a finish to match panel unless otherwise specified.

C. Hold down clips: Provide standard curved designer hold down clips to secure panels in place to prevent uplift to be used for job site cut perimeter panels, heavy duty applications, security and exterior application.

D. Sound insulation: Perforated panels should have a 0.2 mm (0.008") thick Simplex "T" non-woven black acoustical textile laminated on the back of panel. Also available, 1-1/2" thick x ¾ pound density glass wool fiber completely sealed in an incombustible bag and installed with accordion pad spacers placed between the panel back and acoustical pad.

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PART 3. EXECUTION

3.1 EXAMINATION

A. Carefully inspect the area where the ceiling system is to be installed for conditions that may affect the work.

B. Installer must examine the conditions under which acoustical ceiling work is to be performed, and notify the contractor in writing of any unsatisfactory conditions before proceeding.

C. All work above the ceiling system is to be satisfactorily completed prior to start of ceiling installation.

D. All unsatisfactory conditions potentially affecting the ceiling system are to be corrected prior to the start of installation.

3.2 PREPARATION

A. Verify and confirm ceiling layouts by actual field measurements to balance borders and minimize out-of-square conditions. Coordinate all work that penetrates the ceiling.

B. Ceiling systems shall be properly centered per the manufacturer's installation manual or as shown on the approved shop drawings.

C. Cutouts for lights, speakers, sprinklers or other items can be factory cut providing the opening size is provided to Simplex. If the information is not available, cutouts can be done on site.

3.3 INSTALLATION

Install the suspended ceiling system in accordance with the manufacturer's printed installation instructions, applicable industry standards and local regulations and requirements in effect.

3.4 ADJUSTMENT AND CLEANING

Adjust ceiling components to provide a consistent finish and appearance in conformity with pre-established tolerances and requirements. All panels showing signs of damage, either in finish or in form are to be replaced. All exposed surfaces are to be cleaned of any dirt, grease, fingerprints and marks and other imperfections with cleaning materials recommended by the manufacturer.