

DATA CENTER PARTITION WALL SYSTEM

SECTION 09 00 00

PART 1 – GENERAL

1.01 SECTION INCLUDES:

- A. Work on this Section includes the installation of the Data Center Partition Wall System, including, but not necessarily limited to the following:
 - 1. Aluminum Post and Batten Framing and Infill Panels: As specified in this Section.

1.02 RELATED DOCUMENTS/SECTIONS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions.
- B. Division 1 Specification sections apply to work of this Section.
- C. Finish Schedule or Finish Legend applies to work of this Section.
- D. Related Work:
 - a. Structural Data Center Ceiling Grid System: As specified in Division 9.

1.03 REFERENCES:

- A. ASTM (American Society for Testing and Materials)
 - 1. ASTM E84, Standard Test Method for Surface Burning Characteristics of Building Materials.
 - 2. ASTM D635, Standard Test Method for Rate of Burning and or Extent and Time
 - 3. The Aluminum Association, Aluminum standards and Data

1.04 DESIGN/PERFORMANCE REQUIREMENTS:

- A. All components of the Gordon, Inc. Data Center Partition Wall System shall be provided by one (1) Manufacturer to ensure single source responsibility and quality control.
- B. Completed Data Center Partition Wall System shall be capable of providing a barrier between the Data Hall and Mechanical Gallery. The System must be installable from the Data Hall side only.

1.05 SUBMITTALS:

- A. Submission must be made within ten (10) working days of the General Contract Award to avoid project delay.
- B. Product Data: Submit Manufacturer's:
 - 1. Product Specifications
 - 2. Detail Drawings
 - 3. Installation Instructions
- C. Samples:
 - 1. Samples shall consist of two (2) sample-size posts, one (1) sample-size Polygal® Panel, one (1) head track, one (1) head track fascia piece, and two (2) floor brackets.

D. Sustainability:

1. Materials and Resources

- a. Building Life-Cycle Impact Reduction
 - i. LCAs for aluminum are available.
 - a) Aluminum - http://www.gordon-inc.com/literature/pdf/cisca_background_report_aluminum_2020-04-24.pdf
- b. Building Product Disclosure and Optimization - Environmental Product Declarations
 - i. Industry-average EPDs for aluminum are available.
 - a) Aluminum - http://www.gordon-inc.com/literature/pdf/101.1_cisca_industry_wide_epd_aluminum_specialty_products.pdf
- c. Building Product Disclosure and Optimization - Sourcing of Raw Materials
 - i. Regional Materials – Raw materials can be purchased from Vendors within 100 miles of the project location and fabrication of all materials in Bossier City, LA, U.S.A
 - ii. Gordon’s mission is to locate recycled materials that are not only of high recycled content, but extracted, produced, or extruded in the U.S.A.
- d. Building Product Disclosure and Optimization - Material Ingredients
 - i. Full disclosure of material recycled content is available.
- e. Construction and Demolition Waste Management
 - i. Most products shipped from our plant are engineered to fit and reduce field cutting during installation.
 - a) Fewer indoor air quality problems
 - b) Less scrap and debris – cleaner work environment
 - c) Less noise pollution caused by field cutting of materials.
 - d) Maintain comfort and well-being of workers and occupants.

2. Indoor Environmental Quality

- a. Low-Emitting Materials
 - i. Gordon provides the highest quality anodized surfaces which contribute to our sustainability drive.
 - a) No heavy Metals used in pre-treatment.
 - b) Processed water is fully compliant for introducing into waste stream.
 - c) Factory finished products shipped from our plant eliminates field painting.
 - 1. Prevents odorous and irritating air contaminants.
 - 2. Introduces no hazardous waste.
 - 3. Contributes no VOCs.

- 4. Maintains comfort and well-being of workers and occupants.
- 3. Innovation
 - a. Innovation
 - i. Gordon is a strategic partner with the design community and continuously finds ways to design products that can aid in improving environmental performance.
 - b. LEED Accredited Professional
 - i. Gordon has LEED Accredited Professionals on staff to assist with your sustainability requirements.
- 4. Detailed explanation of LEED Credits and Gordon, Inc.'s Contribution can be located at <http://www.gordon-inc.com/company/sustainability/>.
- E. Certification: Submit certification from Manufacturer of Data Center Partition Wall System attesting that products comply with specified requirements, including finish, as specified.
- F. Qualification Data:
 - 1. Firms specified in "Quality Assurance" Article must demonstrate their capabilities and experience by including lists of completed projects with project names and addresses, names and addresses of Architects and owners, and other information specified.

1.06 QUALITY ASSURANCE:

- A. Source Limitations:
 - 1. All components of the Data Center Partition Wall System shall be provided by a single Manufacturer to ensure responsibility and quality control.
- B. Manufacturer Qualifications:
 - 1. A manufacturer must have manufacturing and delivery capacity required for the project and shall have successfully completed at least ten (10) projects within the past five (5) years, utilizing systems, materials, and techniques as herein specified.
 - 2. A manufacturer must own and operate its own manufacturing facilities for all metal components. "Stick Built" or "Kit of Parts Systems" consisting of components from a variety of Manufacturers/Fabricators will not be considered or accepted.
- C. Installer Qualifications:
 - 1. Installers shall have a minimum of five (5) years of experience installing systems of similar type and scope as those specified in this section.

1.07 PRODUCT DELIVERY, STORAGE AND HANDLING:

- A. All materials shall be protected during fabrication, shipment and installation to prevent damage to the finished work from other trades.
- B. To avoid lasting deformation of the Data Center Partition Wall System components when exposed to temperature and humidity extremes, store this material at or near room temperature. Allow a minimum of 24 hours for the product to adjust to internal room

temperature and humidity conditions before installing the Data Center Partition Wall System.

- C. Store Data Center Partition Wall System inside a well-ventilated area, away from uncured concrete and masonry, and protected from the weather, moisture, soiling, abrasion, extreme temperatures, and humidity.
- D. Maintain environmental conditions (temperature, humidity and ventilation) within limits recommend by Manufacturer for optimum results. Do not install products under environmental conditions outside Manufacturer's recommendations.
- E. Exercise care in loading, unloading, storing and installing units to preclude bending, warping, twisting and other surface damage.

1.08 WARRANTY:

- A. Furnish Manufacturer's:
 - 1. Warranty that materials furnished will perform as specified for a period of not less than one (1) year from date of material shipment when installed in accordance with Manufacturer's recommendations.
- B. Extended Workmanship Warranty:
 - 1. Furnish Manufacturer's Standard Workmanship Warranty (must be requested at time of quotation) may be extended up to a maximum of twenty (20) years from date of material shipment, when installed in accordance with Manufacturer's recommendations.

1.09 SUBSTITUTIONS:

- A. No substitutions are permitted for Data Center Partition Wall System.
- B. Requests for substitutions will be considered in accordance with the provisions of Section 01 60 00. Companies desiring to submit a proposal shall submit all descriptive information of the system proposed including photographs and Shop Drawings of at least ten (10) projects within the past five (5) years, utilizing systems, materials and techniques as herein specified.

PART 2 - PRODUCTS

2.01 MANUFACTURERS:

- A. Basis-of-Design: Subject to compliance with requirements, provide Data Center Partition Wall System manufactured by Gordon, Inc. For all inquiries contact:

Gordon, Inc.
5023 Hazel Jones Road
Bossier City, LA 71111,
(800) 747-8954
datacentersales2@gordon-inc.com

- B. The listed Manufacturer shall not be construed as closing specifications to other prospective Manufacturers, but rather as establishing a level of quality in a metal system. Other systems may be submitted for approval, as provided for in the specifications at least ten (10) working days prior to submission of bids. Companies desiring to submit a proposal shall submit all descriptive information of the system

proposed including photographs and Shop Drawings of at least ten (10) projects within the past five (5) years, utilizing systems, materials, and techniques as herein specified.

2.02 MATERIALS:

- A. Provide metals free from surface blemishes where exposed to view in finished Data Center Partition Wall System. Surfaces exhibiting pitting, seam marks, roller marks, stains, discolorations, or other imperfections on finished Data Center Partition Wall System are not acceptable. All metal shall be of the highest commercial grade available.
- B. Extruded aluminum Data Center Partition Wall System with infill Panels as indicated on Drawings, including notes and details.
- C. Materials
 - 1. Framing members shall be manufactured of extruded aluminum alloy 6063, temper T5 or T6.
 - a. Finish shall be 204-R1 etched and clear anodized
 - 2. Panels shall be 16 mm thick hollow polycarbonate sheets. Finish shall be "ICE." Panel material must pass Flame Spread rating of 5 and Smoke Developed rating of 70 per ASTM E84 requirements. Panels are nominal 4' wide by 14' tall. The top and bottom of each panel will be fitted with an extruded aluminum alloy 6063, with a 204-R1 etched and clear anodized finish trim.
 - 3. Top Track made of 6063-T5 or T6 extruded aluminum profiles, which allow for vertical movement of Post, Batten, and Panels in cases of ceiling or floor displacement. Top track to bolt to ceiling system above every 4'.
 - 4. Top Bracket – 16 Gauge stainless steel #2B brackets shall fit within the hollow Post. Each top bracket to fasten to screw slots in the top track with ¼-20 bolts.
 - 5. Floor Bracket – 16 Gauge stainless steel #2B brackets shall be fastened to the flooring below with fasteners designed for anchoring into the appropriate substrate and fit securely within the hollow Post.

2.03 FABRICATION:

- A. The extruded aluminum framing members shall be cut to the specified length as shown on the Drawings.
- B. The infill Panels shall be supplied as nominal 4' wide by up to 14' tall.

2.04 FINISHES:

- A. The framing system and attachment system components of the Gordon, Inc. Data Center Partition Wall System shall have a clear anodized finish.
- B. The infill Panels finish shall be "ICE."

PART 3 - EXECUTION

3.01 EXAMINATION:

- A. Examination of Surfaces: Installer must examine conditions under which work is to be performed and must notify Contractor in writing of unsatisfactory conditions.
- B. Verify that field measurements and block-out dimensions are as shown on Shop Drawings.

3.02 PREPARATION:

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the Manufacturer to achieve the best result for the project conditions.
- C. To avoid lasting deformation of the Data Center Partition Wall System components when exposed to temperature and humidity extremes, store this material at or near room temperature. Allow a minimum of 24 hours for the product to adjust to internal room temperature and humidity conditions before installing the Data Center Partition Wall System.

3.03 INSTALLATION:

- A. General: Comply with Manufacturer's printed instructions, governing regulations for Seismic Codes, and any other regulations applicable to work.
- B. Space Enclosure: Do not install any work until space is enclosed and weatherproofed, wet-work in space is completed and nominally dry, work above ceilings is complete, and temperature and humidity shall be continuously maintained at values near those of final occupancy.

3.04 CLEANING:

- A. Clean all surfaces following installation. If necessary, use only a mild soap or detergent solution such as TSP-90 or Ivory.
- B. Maintenance per Manufacturer's finish maintenance instructions.

3.05 PROTECTION:

- A. Procedures: Care should be taken during the remainder of construction to protect the Data Center Partition Wall System from damage.
- B. Damage to Finished Work: Finished units shall be without damage. Damage shall be repaired by the Contractor at the expense of the party damaging the material, as in accordance with the contract requirements.

END OF SECTION