



CUSTOM DESIGN SERVICES

The Planar Custom Solutions Group (CSG) offers professional services including custom LED video wall design, mounting frame design, power and signal flow drawings, 3D renderings, and design review. The team can also provide budgetary estimates and quotations for these products and services. Each inquiry will be addressed on a case-by-case basis following the General Services Outline below.

WHEN TO ENGAGE THE CSG

- When requesting services that exceed Planar's typical scope of work
- When requesting LED displays that are not on the Planar North America price list
[From Leyard factories including Linso, GLUX and VTeam; or from third-party factories]
- When requesting designs and quotes for custom mounting frames
[Does not include Planar stock mount part numbers or mounts for standard flat LED walls]
- When a design, estimate or quote needs to be provided for a new custom solution
- When you require market expertise in Outdoor LED, Transportation or Sports

INITIATING A DESIGN SERVICES REQUEST

1. A Planar Design Services Request Form must be completed and submitted to the Planar Custom Solutions Group. This is a mandatory first step. Send to: CustomSolutions@planar.com
2. The Custom Solutions Group will confirm receipt of the work request, log it, assign it, schedule it, and track it through to completion.
3. If design and/or documentation work is requested, the Custom Solutions Group will provide a quotation for these services along with an estimated time to completion.
4. The Planar account manager will issue a quote to the integrator or end-user based on the pricing provided by the Custom Solutions Group.
5. Once the CSG receives a purchase order that includes Design Services, the design work will be initiated. Typical time to completion is two weeks.
6. The Planar account manager or application engineer will coordinate any required meetings or information exchange between the Custom Solutions Group and the integrator or end-user.

GENERAL SERVICES OUTLINE

Power & Signal Flow Drawings:

- Standard video wall products (on the Planar price list): Drawing packages are available from the Planar Professional Services Technical Group. Contact ProTechGroup@planar.com
- Custom video wall products (not on the Planar price list): \$4,500 for the first video wall and \$2,500 per wall for each additional wall.

Mounting Frame Mechanical Drawings

- Mechanical drawings are free from the mounting frame vendor, typically within two weeks after receipt of the video wall purchase order. If they are required sooner, the price and lead time must be quoted by the mounting frame vendor.

Design Review: \$750 per half-day for review of architectural drawings for conformity. The Planar Custom Solutions Group will estimate the time required after receipt of the drawings and details.

Mechanical Engineering: \$1,000 per half-day for mechanical design and drawings of custom displays, mounting frames, brackets, structures or other related components.

3D Renderings: \$1,000 per wall. These will be 3D colored renderings in perspective, elevation and other views (SketchUp or similar). Three or more views will be provided per wall.



All of the above Design Services are paid services. There are two ways they can be quoted and ordered:

1. Design Services can be added to the LED video wall quote. Once the purchase order for the LED video wall is received, the Design Services will be initiated.
2. Design Services can be quoted separately. Once the purchase order for the Design Services is received, the Design Services will be initiated.

All services assume a lead time of two weeks for completion of design work, or longer if deemed necessary based on the scope of work. One revision to the scope of work or LED video wall configuration is included in the service price. Any further revisions will require a Change Order and will be subject to additional Design Services fees.

DETAILED SERVICE OUTLINE

Power Flow Drawings – The Design Team will prepare power drawings with the following information:

- Maximum power consumption of the LED screen(s) and Planar-provided auxiliary equipment
- Recommended number and size of required circuits*
- Individual circuit loading information based on recommended sizes
- Power cable routing between individual LED cabinets
- BTU data
- Rack riser diagrams and rack power summary
- Any relevant LED product-specific power information

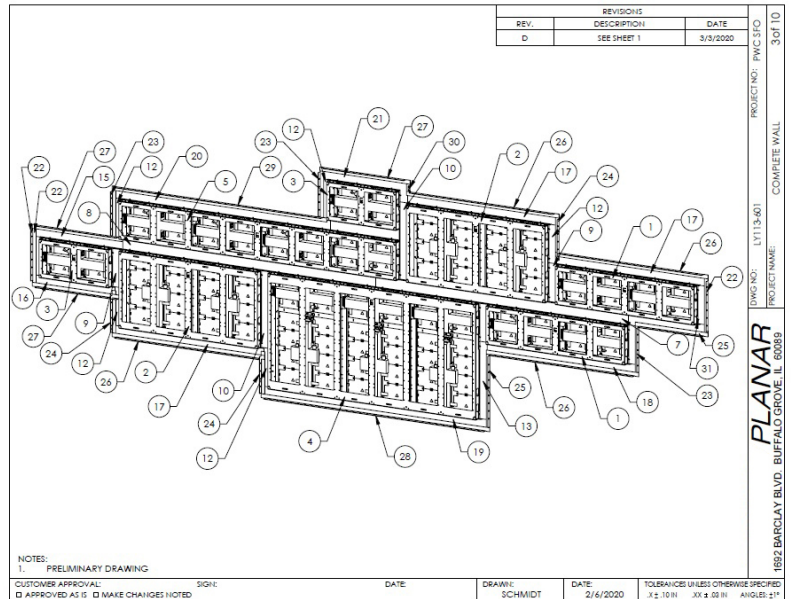
**Note: The integrator must specify the voltage to be provided. If this is not provided, the Custom Solutions Group will use 110V to complete the work. If a different voltage is required after the drawings are completed, additional charges will result. 20A circuits are assumed unless otherwise specified.*

Signal Flow Drawings – The Custom Solutions Group will prepare signal drawings with the following information:

- Overall pixel counts
- Type and required quantities of auxiliary equipment provided by Planar
- Type and required quantities of signal inputs into the display, as determined by the resolution of the client's source feed(s)
- Signal cable routing between individual LED cabinets
- Content layout diagrams as needed
- Any relevant LED product-specific signal information

Design Review – The Planar Custom Solutions Group will review architectural design packages to ensure the details conform to Planar expectations. The following details will be evaluated:

- The design is within Planar standards (curved or faceted screens, LED orientation, mounting if provided by others, etc.)
- The design allows adequate space for installation and service
- The design supports the proposed mounting frame solution
- The design meets the LED installation manual's guidelines on proper ventilation
- The trim or cladding design does not risk damage to the LEDs during installation or service
- Identify any challenges that might prevent proper installation and service of the LED screens



Mounting Frame Mechanical Drawings – The Planar Custom Solutions Group will provide drawings that accurately dimension the proposed LED screen(s) within the architectural space provided. These 2D CAD drawings will contain the following information:

- Dimensioned front and side elevations of LED screen(s) and frame(s). Provided in .dxf, .dwg or other requested format if available.
- Relevant information regarding clearances for installation, service and HVAC upon request
- Constraints unique to each LED product, including:
 1. Maximum radius for concave or convex curve or faceted cabinets
 2. 90-degree or other corners and associated gap dimensions
 3. Safe zones for cable entry and electrical outlet locations, if requested
- Special structural framing requirements (hanging, freestanding, moving, etc.)

The Planar CSG request form is posted on the Planar Partner Portal. You can also request it from your Planar account manager or application engineer. Completed forms and questions can be submitted to: CustomSolutions@planar.com