Pixels® turns USG’s proven metal ceilings and wall-mounted systems into a canvas upon which you can display images, designs or graphics that can transform an ordinary surface into an exciting interactive visual. Pixels®, enabled by Intelliperf Technology, turns photos or graphics into varied-size perforations in metal panels, looking very “op-art” close-up and resolving into a clear image at a distance. Because the image is created by perforations, acoustical properties exist.
SYSTEM OVERVIEW

**METAL PANELS**
- Aluminum
- HRC (High Recycled Content) up to 90%
- Panz®
- Celebration™ Snap-In
- Curvatura™

**MATERIALS**
- Aluminum panels
- Acoustical backer

**SUSPENSION SYSTEM**
- Fineline® (for Celebration™ Snap-In and FL edge Panz panels)
- Centricitee™ (for FL Panz lay-in)
- Wall-mounted (for Celebration™ Snap-In panels)

**LIGHTING**
- Metal panels can be backlit or up-lit
- Backer material can be black or white
- Image can be a positive or negative, negative for backlighting
- Open area of perforations typically do not exceed 15% (not for general illumination)

**DESIGN PROCESS**
- Determine application
- Select image
- Select application system (wall, ceiling, curved)
- Submit graphic to pixels@usg.com
- Complete and submit project details on check sheet
- Scaled images will be returned via email to its originator for approval
STEP 1: SELECT IMAGE

USG’s Ceilings Solutions Group will help you qualify your image or art during the design process. It starts with your selection of a photo, logo, or black and white art of your design.

- Typically, a higher contrast image will produce better results, but not always.
  See examples that follow.
- Select a photo from istockphotos.com or provide your own image (logos, artwork, graphic) (300dpi minimum) (TIF, JPG and PDFs are acceptable).
- For custom images (not from istockphotos.com), an image release statement must be completed.
- The selected image will be transformed into a perf pattern (areas of photograph are sampled for contrast and assigned a perforation diameter).
- Negative or positive. USG can provide a negative or positive of the selected image. A negative image is where the light part of image is perforated. This is typically used for backlighting where the image will become positive. (See images below).

<table>
<thead>
<tr>
<th>Original Image</th>
<th>Positive Image, Not Backlit</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Original Image" /></td>
<td><img src="image2.png" alt="Positive Image, Not Backlit" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Negative Image, Not Backlit</th>
<th>Negative Image, Backlit</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3.png" alt="Negative Image, Not Backlit" /></td>
<td><img src="image4.png" alt="Negative Image, Backlit" /></td>
</tr>
</tbody>
</table>
STEP 2: DETERMINE CANVAS SIZE AND PANEL SIZE

- Images can be displayed on a single panel or as a mural across multiple panels.
- See examples below of how the image can be spread across multiple panels.
- Individual panel size options (2’x 2’, 2’x 4’, 2’x 6’).

Panel Configuration:

Ceiling
- Celebration™ Snap-In
- Panz® (FL or SL)
- Curvatura™

Walls
- Celebration™ Snap-In

**EXAMPLES**

<table>
<thead>
<tr>
<th>4’x4’ canvas (2’x2’ panels)</th>
<th>6’x2’ canvas (2’x2’ panels)</th>
</tr>
</thead>
</table>

Pixels® can be used on protected exterior soffits with Celebration™ Snap-In panels and DXFEV Fineline suspension system (refer to Exterior Guide SC2561 for required layout and recommended components). Panel sizes can be 2’x2’, 2’x4’ or 2’x6’. Acoustical backer is not recommended for exterior use.
## DESIGN GUIDE

### STEP 3: DETERMINE PANEL LAYOUT

Layouts represent patterns only. Final canvas and total ceiling/wall size is up to the designer. No limit to image or canvas size.

<table>
<thead>
<tr>
<th>Layout Type</th>
<th>Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>2’ X 2’ SQUARES</td>
<td><img src="image1" alt="Pattern Image" /></td>
</tr>
<tr>
<td>2’X4’ HORIZONTAL*</td>
<td><img src="image2" alt="Pattern Image" /></td>
</tr>
<tr>
<td>2’X4’ ASHLAR*</td>
<td><img src="image3" alt="Pattern Image" /></td>
</tr>
<tr>
<td>2’X4’ VERTICAL*</td>
<td><img src="image4" alt="Pattern Image" /></td>
</tr>
<tr>
<td>2’X6’ HORIZONTAL</td>
<td><img src="image5" alt="Pattern Image" /></td>
</tr>
<tr>
<td>2’X6’ VERTICAL</td>
<td><img src="image6" alt="Pattern Image" /></td>
</tr>
</tbody>
</table>

*Note: 2’X4’ not available for Curvatura*
**DESIGN GUIDE**

**STEP 4:**
**DETERMINE RESOLUTION**

- The dynamic effect of the eye and brain creating the image at different distances with different hole sizes and hole densities.
- Three choices for perforation fidelity.

<table>
<thead>
<tr>
<th>Resolution</th>
<th>Low Resolution</th>
<th>Medium Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PERFORATION PATTERN ORIENTATION</strong></td>
<td><img src="image1.png" alt="Low Resolution Example" /></td>
<td><img src="image2.png" alt="Medium Resolution Example" /></td>
</tr>
<tr>
<td>Square:</td>
<td>Centerline of holes run 90° to panel sides</td>
<td>Centerline of holes run 60° to panel sides</td>
</tr>
<tr>
<td>Oblique:</td>
<td><img src="image3.png" alt="Oblique Example" /></td>
<td><img src="image4.png" alt="Oblique Example" /></td>
</tr>
</tbody>
</table>

See [usg.com/pixels](http://usg.com/pixels) for full-size downloadable and printable images.
Pixels® gives you the opportunity to design and choose between higher resolution images and lower resolution images either for artistic considerations or to reduce cost. As resolution is increased, more perforations are required to create the image. Thus, higher resolution costs more than lower resolution. As well, if an image only takes up part of the canvas, the entire surface has a smaller percentage of perforations — also reducing costs. Below are examples of budgetary costs per square foot based on these considerations.

<table>
<thead>
<tr>
<th>Resolution</th>
<th>Coverage of Canvas</th>
<th>Low Resolution</th>
<th>Medium Resolution</th>
<th>High Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt; 50%</td>
<td>Estimated $15 per square foot for entire canvas.</td>
<td>Estimated $25 per square foot for entire canvas.</td>
<td>Estimated $35 per square foot for entire canvas.</td>
</tr>
<tr>
<td></td>
<td>&gt; 50%</td>
<td>Estimated $20 per square foot for entire canvas.</td>
<td>Estimated $30 per square foot for entire canvas.</td>
<td>Estimated $45 per square foot for entire canvas.</td>
</tr>
</tbody>
</table>

**Note:** Estimated costs are what contractors can expect to pay for the Pixels panels. Prices and total installation costs will vary by market. Does not include installation cost and hardware.
STEP 5:
DETERMINE IMAGE EVALUATION
Submit Check Sheet for Image Evaluation

Image evaluation check sheet — located at usg.com/pixels.

Check Sheet

Complete the following check sheet and send RTQ for pricing to Ceilings Solutions Group through Customer Service. 
See Pixels® Design Guide for assistance.

Contact Information
Name: ________________________________
Company or firm name: ____________________
Phone: ________________________________
Contact email: __________________________
Project name: ____________________________

Image of Artwork Information
Photograph/Graphic file
• File name: ____________________________
• Attach Image to e-mail
• Attach Image Release Statement
• Usable.com Image Reference

Application
• Ceiling
• Wall
• Ceiling/Wall/Panel Cutouts

Size
Same original size of the image will be used. If it is necessary to reduce image size within the canvas size, please provide sketch.

Product Type
Celebration™ Snap-In Panel Size
2’x2’
2’x4’ *
2’x6’
Curvatura™ Custom - Send RTQ

Panel Layouts
2’x2’ Squares
2’x4’ Horizontal rectangles*
2’x4’ Ashlar (alternating) rectangles*
2’x4’ Vertical rectangles*
2’x6’ Horizontal rectangles
2’x6’ Ashlar (alternating) rectangles
2’x6’ Vertical rectangles
Custom - Send RTQ

Perforation rendering
High
Medium
Low

Resolution
High
Medium
Low

Orientation
Square (90°)
Oblique (60°)

Backer Option
Black Acoustibond™ backer
White Acoustibond™ Sacker
No backer
White Diffuser Film

Panel Color
Flat White
Custom

Design Review Process
After the Pixels® check sheet has been processed, the following will be emailed back to its originator:
• A 36”x42” print that shows the image broken down into its panel sizes. This is suitable for printing on a full-sized plotter.
• A full scale section for a highlighted area to show perf resolution and pattern. This is also suitable for printing on a full-sized plotter.
• The USG Ceilings Solutions Group will retain these files by job name for reference and approval at the time of an order.

Special Instructions:
__________________________
__________________________
__________________________

NOTE: USG Corporation reserves the right to refuse a Pixels® order request should USG deem an image to be inappropriate.

SAMPLE

Design Review Process
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**Fluorescent Strip Fixtures**

Fluorescent fixtures with no reflector provide non-directional illumination in space. Use of fixtures with a reflector directs light downward and reduces upward spill light.
Point Source Incandescent or Halogen Fixtures
Where Acoustibond backer is not selected, the perforation pattern can be projected on walls and floors of the space. White Acoustibond backer will diffuse light to create an even glow.
LED Light Sources — Single or Programmable
Programmable LEDs add an additional level of interest by allowing the opportunity to project the perforation pattern with changing colors.

Consult a lighting consultant for specific recommendations.
For Pixels® specification refer to the particular system application.

**Ceiling**
- Celebration™ Snap-In
- Panz® (FL or SL)
- Curvatura™

**Walls**
- Celebration™ Snap-In

Prior to manufacturing, your Pixels® ceiling or wall will be presented to the contractor for final approval. The entire canvas with specified imagery will be shipped with pre-numbered panels and accompanying shop drawings for proper and easy installation.
PRODUCT INFORMATION
See usg.com for the most up-to-date product information.

CUSTOMER SERVICE
800 950-3839

TECHNICAL SERVICE
800 USG.4YOU (874-4968)
usg.com

PRODUCT LITERATURE
USG Pixels® Metal Ceiling Panels Data Sheet IC63
USG Pixels® Wall Mounted Panels Data Sheet IC65

LIMITATIONS
Interior applications only

NOTICE
We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

SAFETY FIRST!
Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read SDS and literature before specification and installation.