GENERAL NOTES:
1. INSTALL ALL DOTS AND FLANGE BRACES (FB) AS SHOWN.
2. WALK PANEL PRODUCTS STOLL TO THE BUILDING.
3. OTHER THAN FOR WALK DOORS AND WINDOWS SHOWN ON THE CONTRACT, DO NOT ADD ADDITIONAL WALK OPENINGS WITHOUT THE APPRON OF BUILDING MANUFACTURER OR PROFESSIONAL ENGINEER.
4. AFTER INSTALLATION, Wipe ALL PANELS CLEAN OF METAL SHAVINGS CAUSED BY DRILLING.
**R2 ANCHOR BOLTS AT SIDEWALL COLUMNS**

- **F73 Formed Base Trim Without Panel Reces**

**Q3 DIAGONAL ROD**

- **(6) Stitch Screws**
  - 1/4" x 1/2" x 7/8" Lap Tek

- **Die Formed Ridge Cap F327**

- **Member Screws**
  - 1/4" x 1 1/4" at 5'-7"-5" O.C.

- **1" Tape Sealant WM-900**

**"PBR" ROOF FIXED RIDGE DETAIL**

**Downspout Strap Attachment Detail**

4" x 5" Roll-Form

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**EMPIRE STEEL BUILDINGS**

5230 CARROLL CANYON ROAD,
SAN DIEGO, CALIFORNIA 92121 U.S.

**FIELD GUTTER END LAP INSTALLATION - PBR Roof**

4" x 5" Roll Form Downspout
GUIDANCE ON LTP PLACEMENT

BACKGROUND:
UNDERWRITERS LABORATORY CONSTRUCTION LISTINGS AVAILABLE TO NCI REQUIRE METAL ROOF PANELS AND LIPS TO BE IN AT LEAST A TWO SPAN CONDITION. SINGLE SPAN PANELS ARE NOT ACCEPTABLE. THIS IS ALSO GOOD ENGINEERING PRACTICE AS A SINGLE SPAN PANEL WILL FAIL BY THE SCREWS PULLING THROUGH THE PANEL AT THE EDGES. NONE OF OUR LOAD TABLES ARE BASED ON THIS FAILURE MODE.

THE INTERNATIONAL BUILDING CODE SECTION 2009 PROVIDES RESTRICTIONS ON THE PLACEMENT OF "LIGHT-TRANSMITTING PLASTIC ROOF PANELS" COMMONLY REFERRED TO AS LTPS. THE PURPOSE IS TO LIMIT FIRE EXPOSURE TO ADJACENT BUILDINGS. IF A BUILDING DESIGN BY NCI IS INTENDED TO BE CLOSER THAN 10' FROM AN ADJACENT BUILDING AND THERE ARE OPENINGS, ALONG THE ADJACENT WALL THAT ARE REQUIRED TO BE FIRE PROTECTED THEN LIPS ARE NOT PERMITTED WITHIN 6' OF THE EAVE. (IBC606 SECTION 2009.3 AND 204.8) IT IS ALSO GOOD ENGINEERING PRACTICE TO NOT PLACE LIPS NEAR THE EAVE OF A BUILDING. SAFETY IS A TOP CONCERN AT NCI. THEREFORE THE STANDARD LTP LOCATION FOR NCI WILL NOT BE CLOSER THAN TWO PURLIN SPANS OR 6' FROM THE EAVE.

THE INTERNATIONAL BUILDING CODE SECTION 2009.2 ALSO STATES THAT THERE SHALL BE A MINIMUM SEPARATION BETWEEN ADJACENT LIPS OF 4'. THIS PROVISION DOES NOT APPLY TO LOW HAZARD BUILDINGS LESS THAN 5000 SQ FT THAT HAVE A MINIMUM FIRE SEPARATION FROM ADJACENT BUILDINGS OF 10'..

FALL PROTECTION:
OSHA REQUIRES SKYLIGHTS BE GUARDED TO PROTECT PEOPLE FROM FALLING THROUGH THEM WITH ONE OF SEVERAL METHODS OF FALL PROTECTION. THESE METHODS ARE OUTLINED IN OSHA 29CFR 1910.23(a)(4) SKYLIGHT SCREENS, 1910.23(a)(8) Slatwork, 1926.505(b)(4) RAILING, 1926.505(C) GUARDRAIL SYSTEM, (C) SAFETY NET SYSTEMS, (D) PERSONAL FALL ARREST SYSTEMS, (E) POSITIONING DEVICE SYSTEM, (F) FALL PROTECTION, (G) CONTROL ACCESS ZONE, (H) SAFETY MONITOR, (I) COVERS.

THIS LETTER IS AN UPDATE ON THE LTP PLACEMENT OPTIONS THAT ARE IN COMPLIANCE WITH THE INTERNATIONAL BUILDING CODE, UNDERWRITERS LABORATORY AND GOOD ENGINEERING PRACTICES.

(1) SINGLE SPAN METAL OR LTP PANELS SHOULD NOT BE USED. THE MINIMUM NUMBER OF SPANS FOR ANY PANEL IS TWO. (2) LTPS SHOULD NOT BE PLACED WITHIN 6' OF THE BUILDING EAVE. (3) THERE SHOULD BE 4' OF METAL PANEL SEPARATING ADJACENT LIPS. GIVEN THIS GUIDANCE, THE FOLLOWING TABLE ILLUSTRATES THE MAXIMUM DENSITY OF LTPS FOR VARYING ROOF SPANS WITH A 5' PURLIN SPACING AND TWO SPAN MINIMUM CONDITION, SMALLER PURLIN SPACING CAN BE USED TO OBTAIN THE REQUIRED TWO SPAN CONDITIONS. "SIMPLE SPAN METAL PANELS OR LIPS ARE PERMITTED WITH ADDITIONAL FRAMING WHICH CREATES A TWO SPAN CONDITION. THE ATTACHED DETAILS ILLUSTRATES THE FRAMING NECESSARY TO CREATE A TWO SPAN CONDITION FOR A SINGLE SPAN PANEL OR LTP.

MAXIMUM LTP DENSITY AND LOCATION FOR VARYING ROOF PLANE WIDTHS (GABLE BUILDING)

<table>
<thead>
<tr>
<th>ROOF</th>
<th>BLDG PLANE PANEL</th>
<th>PURLIN LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIDTH</td>
<td>SPANS</td>
<td>5</td>
</tr>
<tr>
<td>20</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>30</td>
<td>15</td>
<td>3</td>
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</tr>
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<td>8</td>
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<td>90</td>
<td>45</td>
<td>9</td>
</tr>
<tr>
<td>100</td>
<td>50</td>
<td>10</td>
</tr>
</tbody>
</table>

MAXIMUM LTP DENSITY AND LOCATION FOR VARYING ROOF PLANE WIDTHS (SINGLE SLOPE BUILDING)

<table>
<thead>
<tr>
<th>ROOF PANEL</th>
<th>BLDG PLANE PANEL</th>
<th>PURLIN LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIDTH</td>
<td>SPANS</td>
<td>5</td>
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<tr>
<td>10</td>
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<tr>
<td>50</td>
<td>50</td>
<td>10</td>
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</tbody>
</table>

WALL LTPS ARE NOT SUITABLE FOR ROOF APPLICATIONS. FOR PURLIN SPACING LESS THAN 5', ROOF LTPS MUST BE "FIELD CUT" TO LENGTH (SEE DIRECTION DRAWINGS FOR DETAILS). INSULATED PANELS CAN ONLY BE "FACTORY CUT" TO LENGTH.

EMPIRE STEEL BUILDINGS
5230 CARROLL CANYON ROAD
SAN DIEGO, CALIFORNIA 92121 US

WARNING: LIGHT TRANSMITTING PANELS (LTP's) ARE NOT DESIGNED OR INTENDED TO BEAR THE WEIGHT OF ANY PERSON WALKING, STEPPING, STANDING, OR RESTING ON THEM. THE MANUFACTURER DISCLAIMS ANY WARRANTY OR REPRESENTATION, EXPRESSED OR IMPLIED, THAT ANY PERSON CAN SAFELY WALK, STEP, STAND, OR REST ON OR NEAR THESE LIGHT TRANSMITTING PANELS, OR THAT THEY COMPLY WITH OSHA REGULATIONS.
SECTION THRU STANDARD SKYLIGHT ROOF PANEL

Tape Sealant
Stitch Screws
At 12" On Center
Skylight Panel
Tape Sealant
Stitch Screws
At 12" On Center
Roof Panel

Member Screws
At 6" On Center

Insulation Trim F-76
Insulation

STANDARD SKYLIGHT PANEL INSTALLATION

EMPIRE STEEL BUILDINGS
5230 CARROLL CANYON ROAD,
SAN DIEGO, CALIFORNIA 92121 US.
Fastener Location for "PBR" Roof Panel

<table>
<thead>
<tr>
<th>Description</th>
<th>Fastener Number</th>
<th>Application</th>
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</thead>
<tbody>
<tr>
<td>1/4&quot;-14 x 7/8&quot;</td>
<td>4A</td>
<td>Stitch &amp; Trim Screw</td>
</tr>
<tr>
<td>12-14 x 1 1/4&quot;</td>
<td>11A</td>
<td>Member Screw</td>
</tr>
<tr>
<td>12-14 x 1 1/2&quot;</td>
<td>17B</td>
<td>Member Screw</td>
</tr>
<tr>
<td>12-14 x 2&quot;</td>
<td>28</td>
<td>Member Screw</td>
</tr>
</tbody>
</table>

Note:
- Standard details call for 1 1/4" fasteners as member screws by default.
- Member screws may be 1 1/4", 1 1/2", or 2" depending on insulation, application, or customer request.

Top Flange
- Top Bolts - See Rigid Frame Drawings For Size
- Intermediate Bolts (as Required) - See Rigid Frame Drawings For Size
- Bottom Bolts - See Rigid Frame Drawings For Size

BOLTS FOR RIGID FRAME Rafter TO COLUMN CONNECTION

Self-Drilling Screw Application

<table>
<thead>
<tr>
<th>Description</th>
<th>Fastener Number</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot;-14 x 7/8&quot;</td>
<td>4</td>
<td>Stitch &amp; Trim Screw</td>
</tr>
<tr>
<td>12-14 x 1 1/4&quot;</td>
<td>3</td>
<td>Member Screw</td>
</tr>
<tr>
<td>12-14 x 1 1/2&quot;</td>
<td>3A</td>
<td>Member Screw</td>
</tr>
<tr>
<td>12-14 x 2&quot;</td>
<td>58</td>
<td>Member Screw</td>
</tr>
</tbody>
</table>

Intermediate Bolts (as Required)
- See Rigid Frame Drawings For Size

PBC Fastener Location At Panel Ends

PBC Fastener Location At Intermediate Supports

Fastener Location for Panel At Wall

EMPIRE STEEL BUILDINGS
5230 CARROLL CANYON ROAD,
SAN DIEGO, CALIFORNIA 92121 U.S.

PROJECT: FLEXIBILITY HIGH SCHOOL
CUSTOMER: ATLAS
LOCATION: MONTCLAIR, CA 91764

ISSUE DATED

C 040220
EX0: 09/30/18
Aug 01, 2017

CIVIL

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