STEEL FRAME

STRUCTURAL FRAMING SPECIFICATIONS

All EcoSteel systems start with a steel frame to provide maximum strength and design flexibility. All parts are pre-cut, pre-drilled and numbered for rapid onsite assembly. Our clear-span curtain wall structure eliminates the need for load-bearing interior walls, freeing up space and enabling creative, cutting-edge designs.

**Description:** A horizontal or vertical structural member which supports roof/wall panels and is in the shape of a Cee or Zee.

**Gauge:** 14

**Depth:** 4", 6", 8"

The exterior skin is smooth as a standard and available embossed as an option. The interior skin is embossed only.

**Finish:** Red Oxide Primer

**Fasteners:** Bolts

**Limitations:** Designed to meet specific load criteria.
## STEEL FRAME FEATURES AND BENEFITS

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>BENEFIT</th>
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<tbody>
<tr>
<td>1. EZ purlin ½&quot; variance in flange width &amp; 50 degree angled stiffener lip</td>
<td>1. Allows easy placement of purlins and easy installation and greater stability</td>
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<td>2. Nominal purlin spacing of 5'</td>
<td>2. Economical design</td>
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<td>3. 50+ combinations of size, gauge, spacing and lap length</td>
<td>3. Optimum design and economical pricing</td>
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<tr>
<td>4. Continuous purlin lap lengths of 1' 2 ¾&quot;, 2' 5 ¾&quot;, 3' 8 ¾&quot;</td>
<td>4. Optimum design and economical pricing</td>
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<td>5. Pre-painted, factory baked red oxide finish.</td>
<td>5. Smooth, attractive appearance, improved adherence &amp; durability. Therefore, no paint sticking problems.</td>
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<td>6. Purlin clips welded to frame</td>
<td>6. Rest point during erection, quicker erection, reduces purlin roll under heavy loading, &amp; increases stiffness.</td>
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<td>7. Optional Galvanized finish.</td>
<td>7. Meets specifications, greater resistance to some corrosive atmospheres</td>
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<td>8. Tabbed sag angles are used with standing seam options/systems</td>
<td>8. Reduces purlin roll, increases stiffness, ease of erection, greater stability, and increased load capacity</td>
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<td>9. Easy purlin identification (triangle)</td>
<td>9. Ease of erection</td>
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<td>10. Members of LGSI</td>
<td>10. Meets specifications</td>
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ANCHOR BOLT PLANS

Proper anchor bolt placement is a critical component of the EcoSteel system. We have provided some typical examples for anchor bolt placement, but the final anchor bolt plans are developed by EcoSteel for each project during the engineering phase.

1. Standard Orientation Shown
2. Typically single slope buildings are shown with the low sidewall the bottom of the page.

*NOTE: At rigid endwalls, 1'-4 is standard setback. This dimension will sometimes increase due to auxiliary crane volume depths on crane jobs.
SIDEWALL OR ENDWALL COLUMN SETBACK

- Steel Line (Outside Face of Wall Girts)
  - 10” Outset Girts (Outset Standard at Sidewall)
  - 8” Outset Girts (Outset Standard at Sidewall)
  - 8” and 10” Inset Girts (Inset Standard at Endwall)

- 4” at Sidewall Columns
- 4” at Endwall Columns

COLUMN AT FINISH FLOOR

- Straight or Tapered Columns
- Finished Floor
- Column
ANCHOR BOLTS

**COLUMN BASE POCKET**

- Finished Floor
- Column
- 3” Clear All Around Base Plate
- Varies

**BASE PLATE WITH GROUT REQUIRED**

- Shim Plates
- See Below
- Column Flange
- Top of Concrete
- For 3/4”, 1”, and 1 1/4” bolt diameters a 3” projection (minimum) from the bottom of the baseplate is required.
- Varies
- Anchor bolt diameter is specified by EcoSteel. Length of embedment and anchorage details are by the foundation engineer.

**NOTES:**

1. Columns may be placed in pocket to conceal base plate and anchor bolts.
2. This condition must be specified during the design phase. The standard condition is for the base plate to be at finished floor.
3. Anchor bolt length to be determined by foundation engineer for appropriate reactions and foundation conditions.
**Built-Up Rigid Frame Sidewall Details**

- **A** = 0” – Flush, 1” – Inset
- 8” – 8” Bypass Girts
- 10” – 10” Bypass Girts
- 12” – 12” Bypass Girts

**Fixed Base Post & Beam Corner Columns (Bypass Girt Condition)**

- **A** = 8”, 10”, 12”
- **B** = “A” Minus 2”

**Notes:**
- Columns may be placed in pocket to conceal base plate
- Column flange must be at finished floor
- Foundation engineer is required for appropriate reactions and foundation details
- Length of embedment of baseplate is required.
- Projection (minimum) from the bottom of the baseplate is required.
- For 3/4”, 1”, and 1 1/4” bolt diameters a 3” clear projection is required.
- Concrete must be provided for top of column
- Shim plates vary
- Foundation details are by EcoSteel
ANCHOR BOLTS

PIPE & TUBE INTERIOR COLUMNS

PIECE & TUBE INTERIOR COLUMNS

- 1 1/2 x 1
- 8" x 8" Bypass Girts
- 1" - Inset
- A = 0" - Flush
- B = "A" Minus 2"

- 2 1/2 x 1
- 8" x 8" Bypass Girts
- 1" - Inset
- A = 0" - Flush
- B = "A" Minus 2"