## 36" Block Series

<table>
<thead>
<tr>
<th>Block Type</th>
<th>Dimensions</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corner Block</td>
<td>2'-0&quot; x 2'-0&quot; x 3'-0&quot;</td>
<td>1,595 lbs</td>
</tr>
<tr>
<td>Corner Top Block</td>
<td>2'-0&quot; x 2'-0&quot; x 4'-0&quot;</td>
<td>1,755 lbs</td>
</tr>
<tr>
<td>Half Block</td>
<td>2'-0&quot; x 2'-0&quot; x 3'-0&quot;</td>
<td>746 lbs</td>
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<tr>
<td>Half Top Block</td>
<td>2'-0&quot; x 2'-0&quot; x 4'-0&quot;</td>
<td>1,360 lbs</td>
</tr>
<tr>
<td>Standard Block</td>
<td>2'-0&quot; x 4'-0&quot; x 3'-0&quot;</td>
<td>1,313 lbs</td>
</tr>
<tr>
<td>Standard Top Block</td>
<td>2'-0&quot; x 4'-0&quot; x 3'-0&quot;</td>
<td>1,068 lbs</td>
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</table>

**Drawn by:** Dan Balling  
**Date:** 11/25/2013  
**Title:** 36" Block Series  
**Dwg No.:** BD-01  
**Scale:** 1:20  
**Sheet:** 1 of 1
MASS EXTENDER REGULAR BLOCK SERIES

48" MASS EXTENDER

60" MASS EXTENDER

MASS EXTENDER HALF BLOCK SERIES

48" HALF BLOCK MASS EXTENDER

60" HALF BLOCK MASS EXTENDER

BLOCK WEIGHT
2,674 LBS

BLOCK WEIGHT
3,509 LBS

BLOCK WEIGHT
1,392 LBS

BLOCK WEIGHT
1,661 LBS

RYAN FONTANESI
5/23/2016

16500 SOUTH 500 WEST
BLUFFDALE, UTAH 84065
PHONE: (801) 571-2028
MASS EXTENDER REGULAR BLOCK SERIES CONT.

**72" MASS EXTENDER**

- Block Weight: 4,300 LBS
- Dimensions: 6'0" x 4'0" x 2'0"

**84" MASS EXTENDER**

- Block Weight: 5,100 LBS
- Dimensions: 7'0" x 4'0" x 2'0"

MASS EXTENDER HALF BLOCK SERIES CONT.

**72" HALF BLOCK MASS EXTENDER**

- Block Weight: 1,905 LBS
- Dimensions: 6'0" x 2'0" x 2'0"

**84" HALF BLOCK MASS EXTENDER**

- Block Weight: 2,140 LBS
- Dimensions: 7'0" x 2'0" x 2'0"
# HALF-STEP SERIES

<table>
<thead>
<tr>
<th>Block Type</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Half-Step Block</td>
<td>972 LBS</td>
</tr>
<tr>
<td>Half-Step Top Block</td>
<td>642 LBS</td>
</tr>
<tr>
<td>Half-Step Half Block</td>
<td>574 LBS</td>
</tr>
<tr>
<td>Half-Step Half Top Block</td>
<td>273 LBS</td>
</tr>
<tr>
<td>Half-Step Corner Block</td>
<td>824 LBS</td>
</tr>
<tr>
<td>Corner Top Block</td>
<td>689 LBS</td>
</tr>
</tbody>
</table>

**DRAWN BY:** R Fontanesi
**DATE:** 6/16/2015
**TITLE:** HALF-STEP BLOCK SERIES
**DWG NO.:** BD-14

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## 2 & 3 Sided Block Series

<table>
<thead>
<tr>
<th>Block Weight</th>
<th>2-Sided Planter Block</th>
<th>3-Sided Planter Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>1623 LBS</td>
<td><img src="image" alt="2-Sided Planter Block" /></td>
<td><img src="image" alt="3-Sided Planter Block" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Block Weight</th>
<th>2-Sided Impact Protection Block</th>
<th>3-Sided Impact Protection Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008 LBS</td>
<td><img src="image" alt="2-Sided Impact Protection Block" /></td>
<td><img src="image" alt="3-Sided Impact Protection Block" /></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Block Weight</th>
<th>2-Sided Variable Curve Block</th>
<th>3-Sided Variable Curve Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>1896 LBS</td>
<td><img src="image" alt="2-Sided Variable Curve Block" /></td>
<td><img src="image" alt="3-Sided Variable Curve Block" /></td>
</tr>
</tbody>
</table>

---

**2 & 3 Sided Blocks**

**Drawn by:** R Fontanesi  
**Date:** 2/11/2016  
**Title:** Block Library

**Verti-Crete, LLC**, All Rights Reserved - Ver 3.0
# 2 & 3 Sided Block Series

<table>
<thead>
<tr>
<th>Block Type</th>
<th>Dimensions</th>
<th>Block Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Sided Impact Protection/Planter Block</td>
<td>2'0&quot; x 4'1&quot;</td>
<td>1696 LBS</td>
</tr>
<tr>
<td></td>
<td>2'0&quot; x 4'0&quot;</td>
<td></td>
</tr>
<tr>
<td>2 Sided Variable Curve/Planter Block</td>
<td>2'0&quot; x 4'0&quot;</td>
<td>1608 LBS</td>
</tr>
<tr>
<td></td>
<td>2'0&quot; x 4'1&quot;</td>
<td></td>
</tr>
<tr>
<td>2 Sided Impact Protection/Planter Block</td>
<td>2'0&quot; x 4'1&quot;</td>
<td>1848 LBS</td>
</tr>
<tr>
<td></td>
<td>2'0&quot; x 4'0&quot;</td>
<td></td>
</tr>
<tr>
<td>3 Sided Variable Curve/Planter Block</td>
<td>2'0&quot; x 4'1&quot;</td>
<td>1809 LBS</td>
</tr>
<tr>
<td></td>
<td>2'0&quot; x 4'0&quot;</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
- Drawn by: R Fontanesi
- Date: 2/11/2016
- Title: 2 & 3 Sided Blocks
- Scale: NA
- Weight: See above
- Sheet: 3 of 3
**36" STANDARD BLOCK & GRAVEL INFILL**

**CONCRETE BLOCK DATA**
- DESIGN UNIT WEIGHT ($\gamma_c$) = 142 pcf
- VOLUME ($V_c$) = 12.36 cft
- BLOCK WEIGHT ($W_c$) = 1,755 lbs
- CENTER OF GRAVITY (COG$_c$) = 19.65" (SEE NOTES)

**GRAVEL INFILL DATA**
- DESIGN UNIT WEIGHT ($\gamma_g$) = 110 pcf
- VOLUME ($V_g$) = 11.64 cft
- GRAVEL INFILL WEIGHT ($W_g$) = 1,280 lbs
- CENTER OF GRAVITY (COG$_g$) = 15.87" (SEE NOTES)

**COMBINED UNIT DATA**
- DESIGN UNIT WEIGHT ($\gamma_t$) = \((1,755 \text{ lbs} + 1,280 \text{ lbs}) / 24 \text{ cft} = 126 \text{ pcf}\)
- VOLUME ($V_t$) = 12.36 cft + 11.64 cft = 24.00 cft
- TOTAL UNIT WEIGHT ($W_t$) = 3,035 lbs
- CENTER OF GRAVITY (COG$_t$) = 18.14" (SEE NOTES)

**NOTES:**
- VOLUME, WEIGHT AND COG CALCULATIONS WERE DONE USING CAD SOFTWARE.
- COG MEASUREMENTS ARE FROM BACK OF BLOCK.
Block Library

36" HALF BLOCK & GRAVEL INFILL

CONCRETE BLOCK DATA
- DESIGN UNIT WEIGHT ($Wc$) = 142 pcf
- VOLUME ($Vc$) = 7.52 cft
- BLOCK WEIGHT ($Wc$) = 1,068 lbs
- CENTER OF GRAVITY ($COGc$) = 19.75" (SEE NOTES)

GRAVEL INFILL DATA
- DESIGN UNIT WEIGHT ($Wg$) = 110 pcf
- VOLUME ($Vg$) = 4.48 cft
- GRAVEL INFILL WEIGHT ($Wg$) = 493 lbs
- CENTER OF GRAVITY ($COGg$) = 18.16" (SEE NOTES)

COMBINED UNIT DATA
- DESIGN UNIT WEIGHT ($Wt$) = (1,068 lbs + 493 lbs) / 12 cft = 130 pcf
- VOLUME ($Vt$) = 7.52 cft + 4.48 cft = 12.00 cft
- TOTAL UNIT WEIGHT ($Wt$) = 1,561 lbs
- CENTER OF GRAVITY ($COGt$) = 18.16" (SEE NOTES)

NOTES:
- VOLUME, WEIGHT AND COG CALCULATIONS WERE DONE USING CAD SOFTWARE.
- COG MEASUREMENTS ARE FROM BACK OF BLOCK

DAN BALLING
DRAWN BY
11/25/2013
DATE
HALF BLOCK
TITLE
BD-03
DWG NO.
16500 SOUTH 500 WEST
BLUFFDALE, UTAH 84065
PHONE: (801) 571-2028
SCALE: 1:15
SHEET 1 OF 1
24" CORNER BLOCK & GRAVEL INFILL

CONCRETE BLOCK DATA
- DESIGN UNIT WEIGHT \( (\gamma_C) \) = 142 pcf
- VOLUME \((V_C)\) = 11.23 cft
- BLOCK WEIGHT \((W_C)\) = 1,595 lbs
- CENTER OF GRAVITY \((COG_C)\) = 12.75" (SEE NOTES)

GRAVEL INFILL DATA
- DESIGN UNIT WEIGHT \( (\gamma_g) \) = 110 pcf
- VOLUME \((V_g)\) = 4.77 cft
- GRAVEL INFILL WEIGHT \((W_g)\) = 508 lbs
- CENTER OF GRAVITY \((COG_g)\) = 9.92" (SEE NOTES)

COMBINED UNIT DATA
- DESIGN UNIT WEIGHT \( (\gamma_f) \) = \( (1,595 \text{ lbs} + 508 \text{ lbs}) / 16 \text{ cft} = 131 \text{ pcf} \)
- VOLUME \((V_f)\) = 11.23 cft + 4.77 cft = 16.00 cft
- TOTAL UNIT WEIGHT \((W_f)\) = 2,103 lbs
- CENTER OF GRAVITY \((COG_f)\) = 12.07" (SEE NOTES)

NOTES:
- VOLUME, WEIGHT AND COG CALCULATIONS WERE DONE USING CAD SOFTWARE.
- COG MEASUREMENTS ARE FROM BACK OF BLOCK.

DRAWN BY: DAN BALLING  DATE: 11/25/2013

VERTI-BLOCK
BLUFFDALE, UTAH 84065
PHONE: (801) 571-2028

DWG NO. BD-04
SCALE: 1:15 SHEET 1 OF 1
**Block Library**

---

**48" MASS EXTENDER BLOCK & GRAVEL INFILL**

**CONCRETE BLOCK DATA**
- **Design Unit Weight** ($W_C$) = 142 pcf
- **Volume** ($V_C$) = 18.83 cft
- **Block Weight** ($W_C$) = 2,674 lbs
- **Center of Gravity** (COG$_C$) = 23.08" (SEE NOTES)

**GRAVEL INFILL DATA**
- **Design Unit Weight** ($W_G$) = 110 pcf
- **Volume** ($V_G$) = 13.17 cft
- **Gravel Infill Weight** ($W_G$) = 1,449 lbs
- **Center of Gravity** (COG$_G$) = 25.17" (SEE NOTES)

**COMBINED UNIT DATA**
- **Design Unit Weight** ($W_t$) = \( \frac{(2,674 \text{ lbs} + 1,449 \text{ lbs})}{32 \text{ cft}} = 129 \text{ pcf} \)
- **Volume** ($V_t$) = 18.83 cft + 13.17 cft = 32.00 cft
- **Total Unit Weight** ($W_t$) = 4,123 lbs
- **Center of Gravity** (COG$_t$) = 23.82" (SEE NOTES)

**NOTES:**
- Volume, weight and COG calculations were done using CAD software.
- COG measurements are from back of block.

---

**48" MASS EXTENDER**

**DWG NO.** BD-06

**DRAWN BY** DAN BALLING

**DATE** 11/25/2013

**TITLE** 48" MASS EXTENDER

**ADDRESS** 16500 SOUTH 500 WEST
BLUFFDALE, UTAH 84065
PHONE: (801) 571-2028

**SCALE** 1:20

---
### 48" HALF BLOCK MASS EXTENDER & GRAVEL INFILL

#### CONCRETE BLOCK DATA
- **Design Unit Weight (\(\gamma_C\))**: 142 pcf
- **Volume (\(V_C\))**: 9.80 cft
- **Block Weight (\(W_C\))**: 1.392 lbs
- **Center of Gravity (\(COG_C\))**: 25.63" (See Notes)

#### GRAVEL INFILL DATA
- **Design Unit Weight (\(\gamma_G\))**: 110 pcf
- **Volume (\(V_G\))**: 6.20 cft
- **Gravel Infill Weight (\(W_G\))**: 682 lbs
- **Center of Gravity (\(COG_G\))**: 21.49" (See Notes)

#### COMBINED UNIT DATA
- **Design Unit Weight (\(\gamma_T\))**: \(\frac{1.392 \text{ lbs} + 682 \text{ lbs}}{16 \text{ cft}} = 130 \text{ pcf}\)
- **Volume (\(V_T\))**: 9.80 cft + 6.20 cft = 16.00 cft
- **Total Unit Weight (\(W_T\))**: 2,074 lbs
- **Center of Gravity (\(COG_T\))**: 24.26" (See Notes)

#### NOTES:
- Volume, weight and COG calculations were done using CAD software.
- COG measurements are from back of block.
60" MASS EXTENDER BLOCK & GRAVEL INFILL

CONCRETE BLOCK DATA
- DESIGN UNIT WEIGHT \( (\gamma_c) \) = 142 pcf
- VOLUME \( (V_c) \) = 24.71 cft
- BLOCK WEIGHT \( (W_c) \) = 3,509 lbs
- CENTER OF GRAVITY \( (COG_c) \) = 28.15" (SEE NOTES)

GRAVEL INFILL DATA
- DESIGN UNIT WEIGHT \( (\gamma_g) \) = 110 pcf
- VOLUME \( (V_g) \) = 15.29 cft
- GRAVEL INFILL WEIGHT \( (W_g) \) = 1,682 lbs
- CENTER OF GRAVITY \( (COG_g) \) = 32.79" (SEE NOTES)

COMBINED UNIT DATA
- DESIGN UNIT WEIGHT \( (\gamma_t) \) = \( (3,509 \text{ lbs} + 1,682 \text{ lbs}) / 40 \text{ cft} = 130 \text{ pcf} \)
- VOLUME \( (V_t) \) = 24.71 cft + 15.29 cft = 40.00 cft
- TOTAL UNIT WEIGHT \( (W_t) \) = 5,191 lbs
- CENTER OF GRAVITY \( (COG_t) \) = 29.65" (SEE NOTES)

NOTES:
- VOLUME, WEIGHT AND COG CALCULATIONS WERE DONE USING CAD SOFTWARE.
- COG MEASUREMENTS ARE FROM BACK OF BLOCK.

DRAWN BY: DAN BALLING
DATE: 11/25/2013
TITLE: 60" MASS EXTENDER

BD-07
16500 SOUTH 500 WEST
BLUFFDALE, UTAH 84065
PHONE: (801) 571-2028

SCALE: 1:20
SHEET 1 OF 1
CONCRETE BLOCK DATA

DESIGN UNIT WEIGHT \( W_c \) = 142 pcf

VOLUME \( V_c \) = 11.70 cft

BLOCK WEIGHT \( W_b \) = 1,661 lbs

CENTER OF GRAVITY \( \text{COG}_c \) = 32.60” (SEE NOTES)

GRAVEL INFILL DATA

DESIGN UNIT WEIGHT \( W_g \) = 110 pcf

VOLUME \( V_g \) = 8.30 cft

GRAVEL INFILL WEIGHT \( W_g \) = 913 lbs

CENTER OF GRAVITY \( \text{COG}_g \) = 26.54” (SEE NOTES)

COMBINED UNIT DATA

DESIGN UNIT WEIGHT \( W_t \) = \( \frac{(1,661 \text{ lbs} + 913 \text{ lbs})}{20 \text{ cft}} = 129 \text{ pcf} \)

VOLUME \( V_t \) = \( 11.70 \text{ cft} + 8.30 \text{ cft} = 20.00 \text{ cft} \)

TOTAL UNIT WEIGHT \( W_t \) = 2,574 lbs

CENTER OF GRAVITY \( \text{COG}_t \) = 30.45” (SEE NOTES)

NOTES:

- VOLUME, WEIGHT AND COG CALCULATIONS WERE DONE USING CAD SOFTWARE.
- COG MEASUREMENTS ARE FROM BACK OF BLOCK.
72" MASS EXTENDER BLOCK & GRAVEL INFILL

CONCRETE BLOCK DATA
DESIGN UNIT WEIGHT = 142 pcf
VOLUME = 30.26 cft
BLOCK WEIGHT = 4297 lbs
CENTER OF GRAVITY (COG_c) = 33.79" (SEE NOTES)

GRAVEL INFILL DATA
DESIGN UNIT WEIGHT = 110 pcf
VOLUME = 17.85 cft
GRAVEL INFILL WEIGHT = 1964 lbs
CENTER OF GRAVITY (COG_g) = 39.76" (SEE NOTES)

COMBINED UNIT DATA
DESIGN UNIT WEIGHT = (4297 lbs + 1964 lbs)/48.11 cft = 130 pcf
VOLUME = 30.26 cft + 17.85 cft = 48.11 cft
TOTAL UNIT WEIGHT = 6261 lbs
CENTER OF GRAVITY (COG_t) = 36.01" (SEE NOTES)

NOTES:
• VOLUME, WEIGHT AND COG CALCULATIONS WERE DONE USING CAD SOFTWARE.
• COG MEASUREMENTS ARE FROM BACK OF BLOCK

R FONTANESI
10/31/2016
14500 SOUTH 500 WEST
BLUFFDALE, UTAH 84065
PHONE: (801) 571-2028
BD-12
84" HALF BLOCK MASS EXTENDER & GRAVEL INFILL

CONCRETE BLOCK DATA
DESIGN UNIT WEIGHT = 142 pcf
VOLUME = 35.9 cft
BLOCK WEIGHT = 5098 lbs
CENTER OF GRAVITY (COG_c) = 36.54" (SEE NOTES)

GRAVEL INFILL DATA
DESIGN UNIT WEIGHT = 110 pcf
VOLUME = 20.2 cft
GRAVEL INFILL WEIGHT = 2222 lbs
CENTER OF GRAVITY (COG_g) = 46.41" (SEE NOTES)

COMBINED UNIT DATA
DESIGN UNIT WEIGHT = (5098 lbs + 2222 lbs)/56.1 cft = 130 pcf
VOLUME = 55.9 cft + 20.2 cft = 56.1 cft
TOTAL UNIT WEIGHT = 7300 lbs
CENTER OF GRAVITY (COG_t) = 42.02" (SEE NOTES)

NOTES:
• VOLUME, WEIGHT AND COG CALCULATIONS WERE DONE USING CAD SOFTWARE.
• COG MEASUREMENTS ARE FROM BACK OF BLOCK.