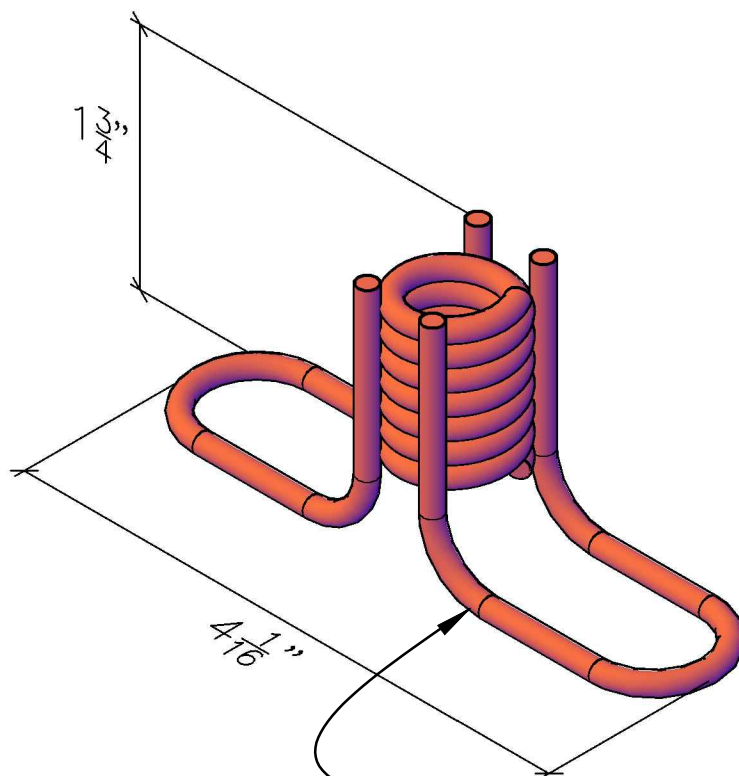


25-4460

Olin Chemical Building

HARDWARE



1/2"x 1 3/4" FLARED THIN SLAB
COIL INSERT

VENDORS: DAYTON SUPERIOR (F-63),
PATTERSON (CI-63), MEADOWBURKE
REFER TO VENDOR CATALOG FOR
CAPACITIES

PROJECT:
STANDARD VENDOR ITEM

PROJECT NO.:
ESW STANDARDS

ORDER HISTORY

DATE	QTY.
-	-
-	-
-	-

TOTAL QUANTITY
NEEDED FOR JOB

QUANTITY

—

DRAWN BY:

—

FINISH:

ELECTROPLATED

HARDWARE ITEM

P101L

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ITEM COST

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ISSUE DATE:

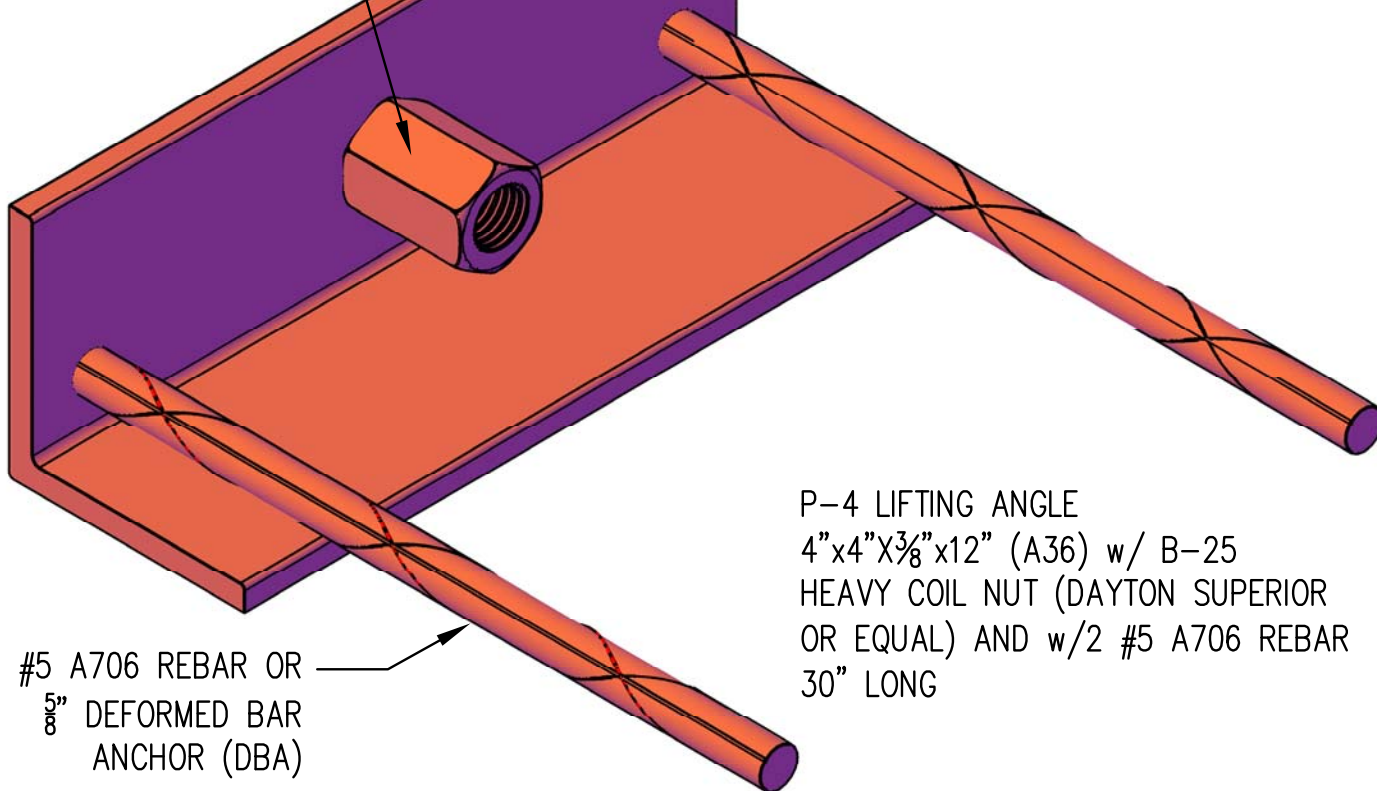
11-07-13

APPROVAL:

DAYTON SUPERIOR
OR EQUAL 1"Ø B-25
HEAVY COIL NUT

25-4460

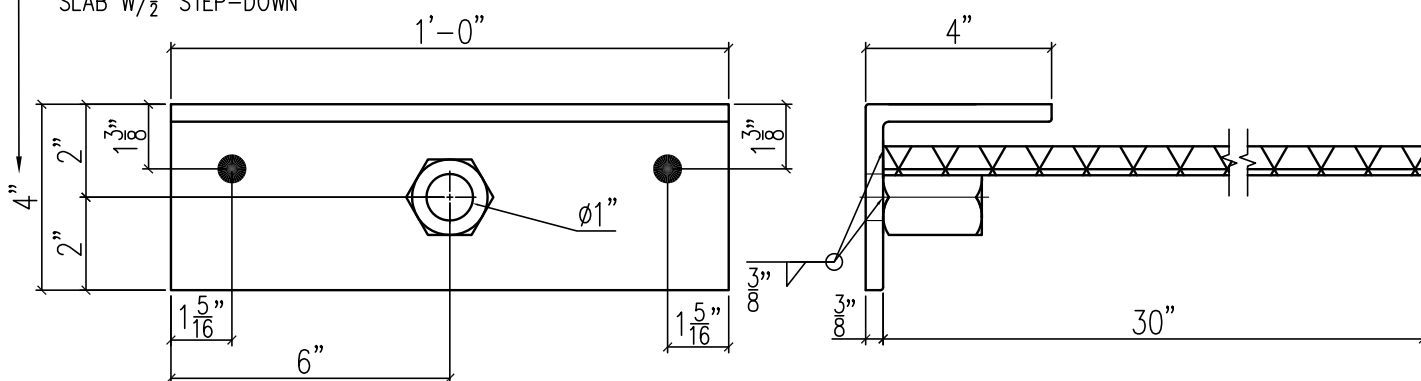
Olin Chemical Building HARDWARE



P-4 LIFTING ANGLE
4"x4"x $\frac{3}{8}$ "x12" (A36) w/ B-25
HEAVY COIL NUT (DAYTON SUPERIOR
OR EQUAL) AND w/2 #5 A706 REBAR
30" LONG

#5 A706 REBAR OR
 $\frac{5}{8}$ " DEFORMED BAR
ANCHOR (DBA)

$3\frac{1}{2}$ " FOR 4" FLOOR
SLAB W/ $\frac{1}{2}$ " STEP-DOWN



NOTE:

- FOR HEAVY BUILDINGS USE MODIFIED P-4
- BUILDINGS THAT EXCEED 80,000 LBS, CONSULT STRUCTURAL ENGINEER
- COLD-GALVANIZED FINISH, ZINC-RICH COATED IN ACCORDANCE WITH ASTM A780

PROJECT:

STANDARD PRECAST MATERIAL

PROJECT NO.:

ESW STANDARDS

ORDER HISTORY

DATE	QTY.
-	-
-	-
-	-

TOTAL QUANTITY
NEEDED FOR JOB

QUANTITY

—

DRAWN BY:

—

FINISH:

GALVANIZED

ISSUE DATE:

11-07-13

APPROVAL:

HARDWARE ITEM

P102G



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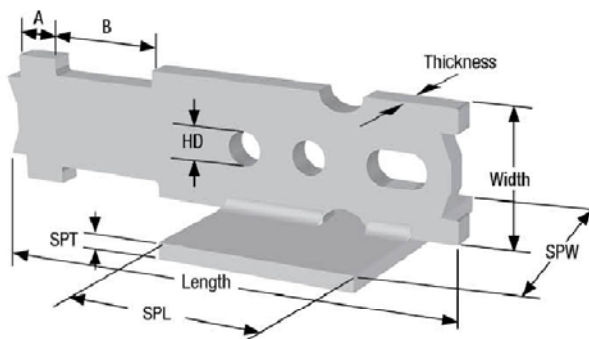
ITEM COST

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QUIKLIFT™ ERECTION ANCHOR - TECH SERIES WITH SHEAR PLATE

The Erection Anchor Tech Series with Shear Plate is designed for horizontal to vertical edge lifting and handling of thin-walled precast elements. The two "ears" on the anchor head prevent the clutch from coming in contact and spalling the concrete. The "ears" transfer the shear loads into the anchor and concrete. A tension bar is typically required to reach the higher tension capacities. Available in 2T, 4T and 8-Ton capacities.

Standard Finish: Hot-Dipped Galvanized



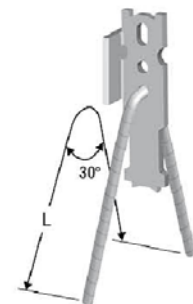
ERECTION ANCHOR - TECH SERIES WITH SHEAR PLATE DIMENSIONS

Part Number	Ton	Ring Clutch System	Width	Length	Thickness	HD - Hole Diameter	A	B	SPW - Shear Plate Width	SPL - Shear Plate Length	SPT - Shear Plate Thickness	Anchor Ultimate Mechanical Load in Tension (lbs)	Weight Per Piece (lbs)
QL527SPG	2T	2T-3T (QL001)	2"	8-11/16"	3/8"	5/8"	5/8"	2-5/8"	2-1/2"	3"	1/4"	16,000	2.04
QL548SPG	4T	4T-6T (QL002)	2-1/2"	10-7/16"	5/8"	3/4"	3/4"	2-5/8"	2-1/2"	3"	3/8"	32,000	4.47
QL589SPG	8T	8T-11T (QL003)	3-3/4"	13-1/2"	3/4"	1"	1"	3-5/8"	3"	3-1/2"	3/8"	64,000	9.97

ERECTION ANCHOR - TECH SERIES WITH SHEAR PLATE LOAD CHART

Anchor Capacity in Concrete, 4:1 SWL

Part Number	Ton	Ring Clutch System	Panel Thickness	Shear (lbs)	Tension w/o Tension Bar (lbs)	Tension w/ Tension Bar (lbs)	Min. Corner Distance (in.)
QL527SPG	2T	2T-3T (QL001)	3-1/2" min.	1,430	2,640	4,000	12"
			4"	1,950	3,190		
			4-1/2"	2,020	3,550		
			5"	2,100	3,900		
QL548SPG	4T	4T-6T (QL002)	4" min.	1,800	3,400	8,000	15"
			4-1/2"	2,470	3,860		
			5"	2,660	4,730		
			5-1/2"	2,770	4,970		
			6"	2,860	5,170		
QL589SPG	8T	8T-11T (QL003)	7" min.	4,010	7,100	16,000	18"
			7-1/2"	4,010	7,220		
			8"	4,010	7,690		



Tension Bars provide a simple and economical method to increase tension capacity. (See Tension Bar Selection Chart)

- Table is based on a concrete compressive strength of 3,500 psi and 150 PCF concrete
- Above capacities are based upon mechanical testing and available industry data.
- Minimum anchor spacing is double the corner distance for anchors without tension bars

PROJECT:
STANDARD VENDOR ITEM

PROJECT NO.:
ESW STANDARDS



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ORDER HISTORY

DATE	QTY.
-	-
-	-
-	-

ITEM COST

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TOTAL QUANTITY
NEEDED FOR JOB

QUANTITY

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DRAWN BY:

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FINISH:

GALVANIZED

ISSUE DATE:

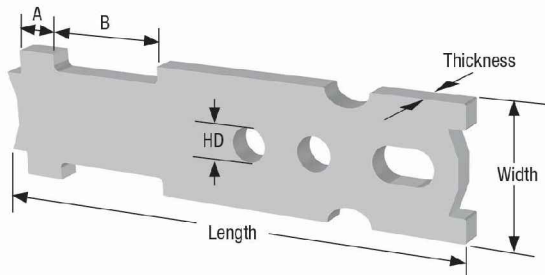
11-07-13

APPROVAL:

HARDWARE ITEM

P103G

P107G

QUIKLIFT™ ERECTION ANCHOR - TECH SERIES


The Erection Anchor Tech Series is designed for horizontal to vertical edge lifting and handling of thin-walled precast elements. The two "ears" on the head of the anchor prevent the clutch from coming in contact and spalling the concrete. The "ears" transfer the shear loads into the anchor and concrete. The shear bar is required with this anchor. A tension bar may be required to reach the higher tension capacities. Available in 2T, 4T and 8-Ton capacities.

Standard Finish: Hot-Dipped Galvanized

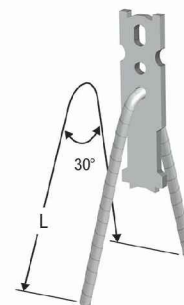
ERECTION ANCHOR - TECH SERIES DIMENSIONS

Part Number	Ton	Ring Clutch System	Width	Length	Thickness	HD - Hole Diameter	A	B	Anchor Ultimate Mechanical Load in Tension (lbs)	Weight Per Piece (lbs)
QL527G	2T	2T-3T (QL001)	2"	8-3/4"	3/8"	5/8"	5/8"	2-5/8"	16,000	1.46
QL548G	4T	4T-6T (QL002)	2-1/2"	10-1/2"	5/8"	3/4"	3/4"	2-5/8"	32,000	3.70
QL589G	8T	8T-10T (QL003)	3-3/4"	13-1/2"	3/4"	1"	1"	3-5/8"	64,000	8.65

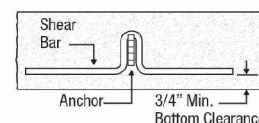
ERECTION ANCHOR - TECH SERIES LOAD CHART

Anchor Capacity in Concrete 4:1 SWL

Part Number	Ton	Ring Clutch System	Panel Thickness	Shear w/ Shear Bar (lbs)	Tension w/o Tension Bar (lbs)	Tension w/ Tension Bar (lbs)
QL527G	2T	2T-3T (QL001)	4" min.	1,490	3,190	4,000
			5"	2,110	3,900	
			5-1/2"	2,130	4,000	
			6"	2,520	4,000	
			7"	2,870	4,000	
			8"	3,160	4,000	
			10"	3,640	4,000	
QL548G	4T	4T-6T (QL002)	5-1/2" min.	2,670	4,970	8,000
			6"	3,075	5,170	
			7"	3,170	6,030	
			8"	3,430	6,910	
			9"	3,650	7,750	
			10"	3,860	8,000	
			11"	3,930	8,000	
QL589G	8T	8T-10T (QL003)	7-1/2" min.	4,010	7,220	16,000
			8"	4,200	7,690	
			10"	4,950	9,580	
			12"	5,175	11,680	



Tension Bars provide a simple and economical method to increase tension capacity. (See Tension Bar Selection Chart)



QUIKLIFT™ Shear Bar is required to achieve shear strength shown in chart.

Table is based on a concrete compressive strength of 3,500 psi and 150 PCF concrete

With proper embedment, reinforcement and minimum compressive strength concrete; Erection Anchors can achieve a pull out strength equal to their ultimate mechanical strength. (See Tension Bar Selection Chart)

PROJECT:
STANDARD VENDOR ITEM

PROJECT NO.:
ESW STANDARDS

ORDER HISTORY

DATE	QTY.
-	-
-	-
-	-

TOTAL QUANTITY
NEEDED FOR JOB

QUANTITY

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DRAWN BY:

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FINISH:

GALVANIZED

ISSUE DATE:

11-07-13

APPROVAL:

HARDWARE ITEM

P103G

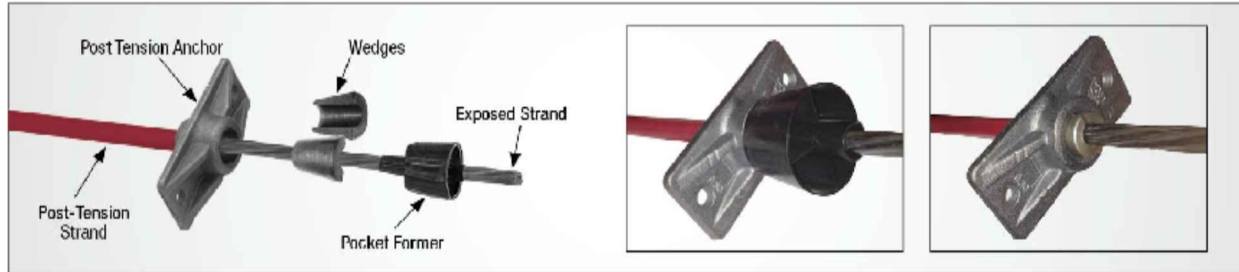
P107G

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ITEM COST
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POST-TENSIONING COMPONENTS



ENERPAC

PRECISION SURE-LOCK®



POST TENSION ANCHOR

Part Number	Strand Size
SL F5CA	0.25", 0.38", 0.43", 0.5", 0.50"-0.52"
SL F6CA	0.50"-JUMBO, 0.60"-0.62"

ENERPAC

PRECISION SURE-LOCK®



2-PART WEDGE

Part Number	Strand Size
SL F250SL2	0.25"
SL F375SL2	0.38"
SL F437SL2	0.43"
SL F500SL2	0.50"-0.52"
SL F500SLJ2	0.50"-JUMBO
SL F600SL2	0.60"-0.62"

ENERPAC

PRECISION SURE-LOCK®



POCKET FORMER

Part Number	Strand Size	Weight
SL F5PF	0.50"	1.0 oz.
SL F6PF	0.60"	2.1 oz.

ENERPAC

PRECISION SURE-LOCK®



HAND WEDGE SETTER TOOL

Part Number	Weight
SL 400580	2.45 lbs

PROJECT:
STANDARD VENDOR ITEM

PROJECT NO.:
ESW STANDARDS

ORDER HISTORY

DATE	QTY.
-	-
-	-
-	-

TOTAL QUANTITY
NEEDED FOR JOB

QUANTITY

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DRAWN BY:

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FINISH:

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HARDWARE ITEM

PT

HRDWRE

ISSUE DATE:

11-07-13

APPROVAL:

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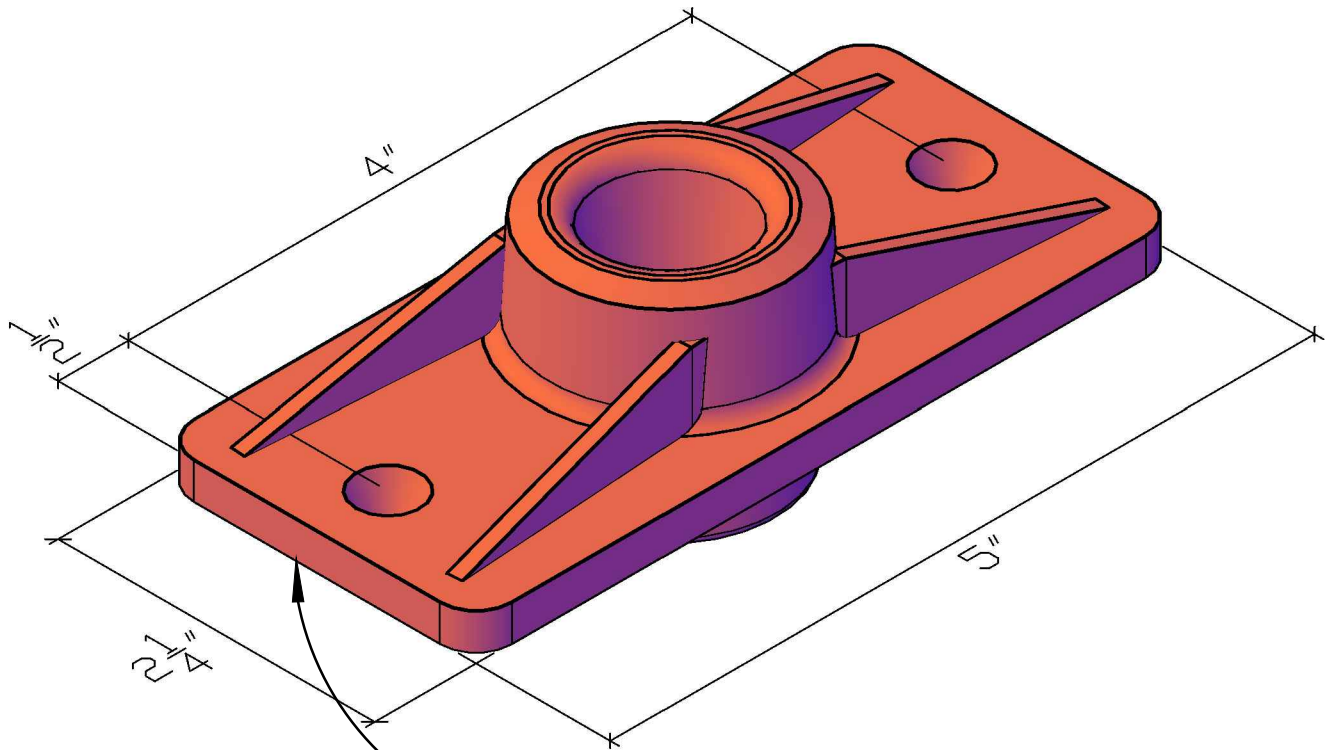
ITEM COST

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25-4460

Olin Chemical Building

HARDWARE



STANDARD U-5 POST TENSION ANCHOR
VENDOR: PATTERSON
REFER TO CATALOG FOR DETAILS.

PROJECT:
STANDARD VENDOR ITEM

PROJECT NO.:
ESW STANDARDS

ORDER HISTORY

DATE	QTY.
-	-
-	-
-	-

TOTAL QUANTITY
NEEDED FOR JOB

QUANTITY

-

DRAWN BY:

-

FINISH:

CAST IRON

HARDWARE ITEM

P104P

ISSUE DATE:

11-07-13

APPROVAL:

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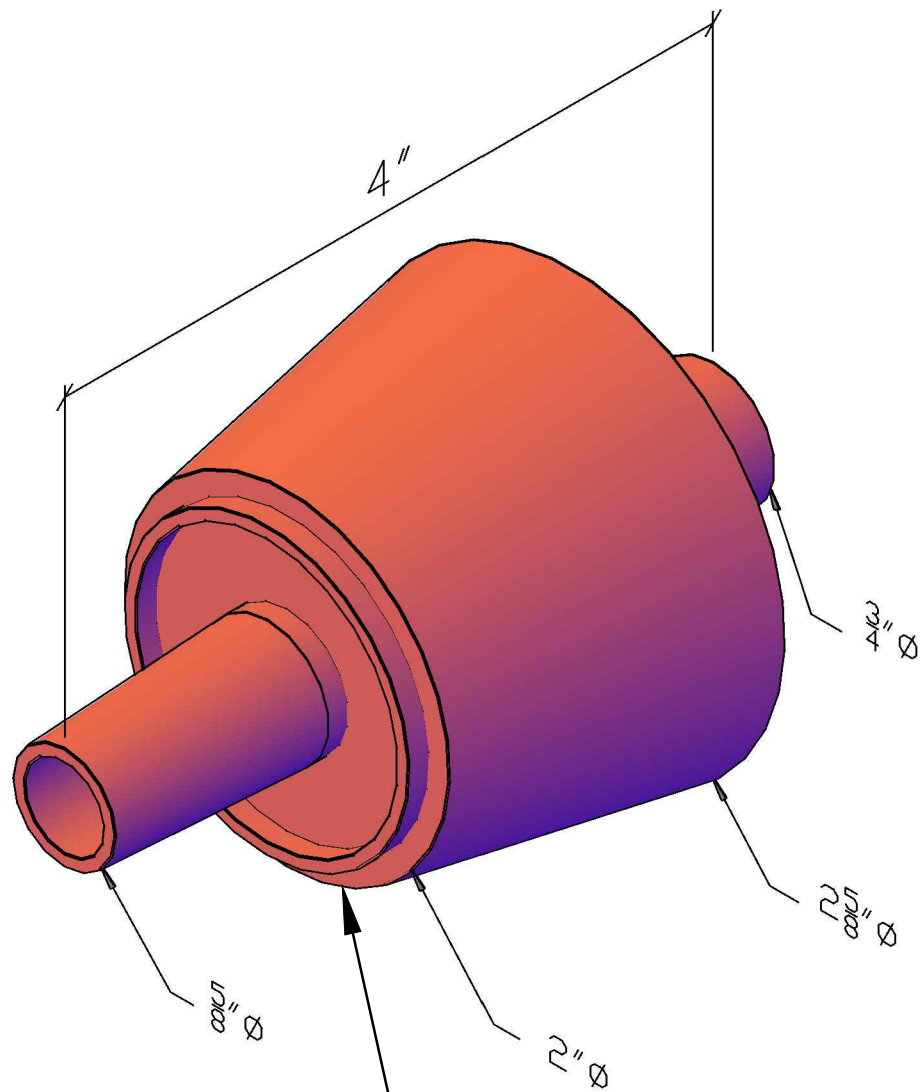
ITEM COST

\$. - / /

25-4460

Olin Chemical Building

HARDWARE



STANDARD U-5 POST TENSION COLLAR
VENDOR: PATTERSON
REFER TO CATALOG FOR DETAILS.

PROJECT:
STANDARD VENDOR ITEM

PROJECT NO.:
ESW STANDARDS

ORDER HISTORY

DATE	QTY.
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-	-
-	-

TOTAL QUANTITY
NEEDED FOR JOB

QUANTITY

-

DRAWN BY:

-

FINISH:

BLACK PLASTIC

HARDWARE ITEM

P104A

ISSUE DATE:

11-07-13

APPROVAL:

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ITEM COST

\$. - / /

QUIKLIFT™ PLATE ANCHORS

The Plate Anchors are designed for removal of panels from the form. The Plate Anchors are designed with a plate welded to the bottom to provide a high capacity in a low profile anchor. The bottom plate allows reinforcing to be applied to the anchor as shown in the below diagram to maximize the capacity.

Standard Finish: Hot-Dipped Galvanized



8 TON



4 TON



2 TON

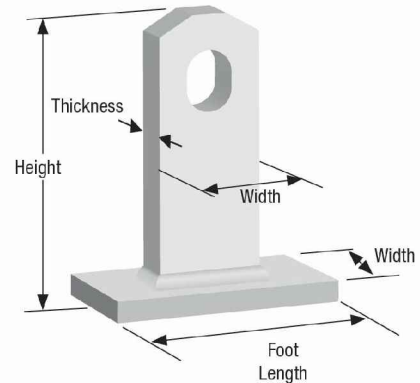


PLATE ANCHOR DIMENSIONS AND LOAD CHART

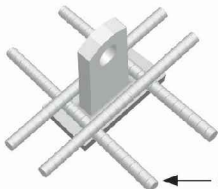
Part Number	Ton	Ring Clutch System	Width	Height	Anchor Head Thickness	Foot Length	Anchor Ultimate Mechanical Load in Tension (lbs)	Weight Per Piece (lbs)	Anchor Capacity in Concrete 4:1 SWL	
									Unreinforced Tension Load (lbs)	Reinforced Tension Load (lbs)
QL128G	2T	2T-3T (QL001)	1-1/4"	2-1/4"	3/8"	3-3/4"	16,000	0.75	950	4,000
QL846G	4T	4T-6T (QL002)	1-1/2"	3"	5/8"	3"	32,000	1.25	3,570	8,000
QL847G	4T	4T-6T (QL002)	1-1/2"	3-1/2"	5/8"	3"	32,000	1.35	4,700	8,000
QL044G	4T	4T-6T (QL002)	1-1/2"	4-3/8"	5/8"	3-7/8"	32,000	1.95	4,730	8,000
QL054G	8T	8T-10T (QL003)	2-1/2"	6-1/4"	3/4"	5"	64,000	5.40	6,530	12,000
QL042G	8T	8T-10T (QL003)	2-1/2"	7-1/8"	3/4"	5"	64,000	5.90	10,000	16,000

- Unreinforced tension values are based on a concrete compressive strength of 3,500 psi and 150 PCF concrete.
- Reinforced tension values are based on a concrete compressive strength of 3,000 psi, 150 PCF concrete and a minimum edge distance of 10".
- Minimum edge distance of $(3 \times \text{anchor height} + \text{anchor width}) / 2$.
- Minimum of 3/4" concrete cover required below anchor

1) *Shear loads should be parallel to the face of the anchor and center line of recess.



2) Spalling may occur when pulling in shear perpendicular to the face of the anchor. This may lead to overloading the anchor



(4) #4 x 18" long

In order to achieve the higher tension values (listed above in the reinforced tension load column) (4) #4 x 18" reinforcing bars are required as illustrated. Two bars are placed directly on the bottom plate and the other two crisscross directly on top of the first bars. These must be secured in place to maintain contact with the plate.

PROJECT:
STANDARD VENDOR ITEM

PROJECT NO.:
ESW STANDARDS

ORDER HISTORY

DATE	QTY.
-	-
-	-
-	-

TOTAL QUANTITY
NEEDED FOR JOB

QUANTITY

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DRAWN BY:

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FINISH:

GALVANIZED

HARDWARE ITEM

P106G

ISSUE DATE:

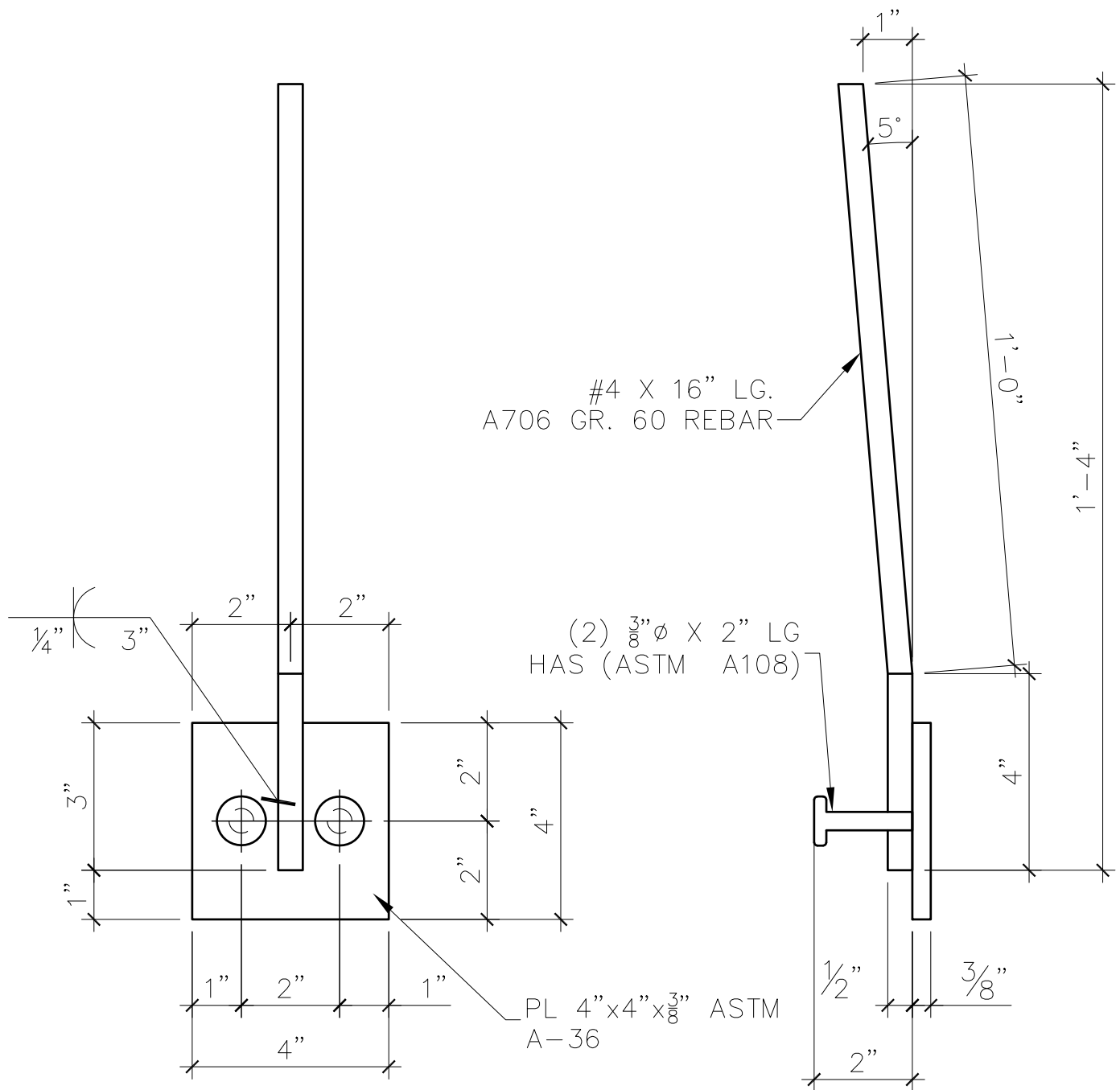
11-07-13

APPROVAL:

25-4460

Olin Chemical Building

HARDWARE



WELDING IN ACCORDANCE WITH:

AWS D1.1 AMERICAN WELDING SOCIETY: STRUCTURAL WELDING CODE-STEEL

AWS D1.4 AMERICAN WELDING SOCIETY: STRUCTURAL WELDING CODE-REINFORCING STEEL

PROJECT: _

PROJECT NO.:
STANDARDS

ORDER HISTORY

DATE	QTY.
-	-
-	-
-	-

TOTAL QUANTITY
NEEDED FOR JOB

QUANTITY

-

DRAWN BY:

MJR

FINISH:

HOT-DIPPED GALV.

ISSUE DATE:

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APPROVAL:

HARDWARE ITEM

P201G



EASI-SET® WORLDWIDE

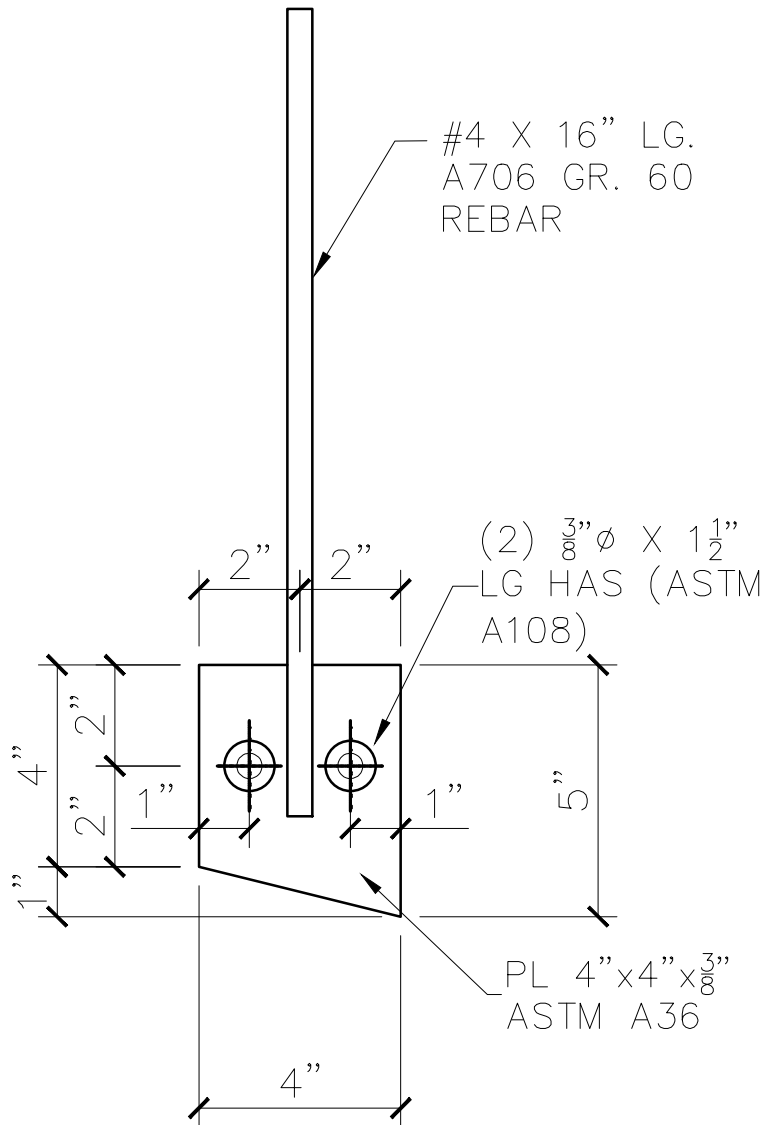
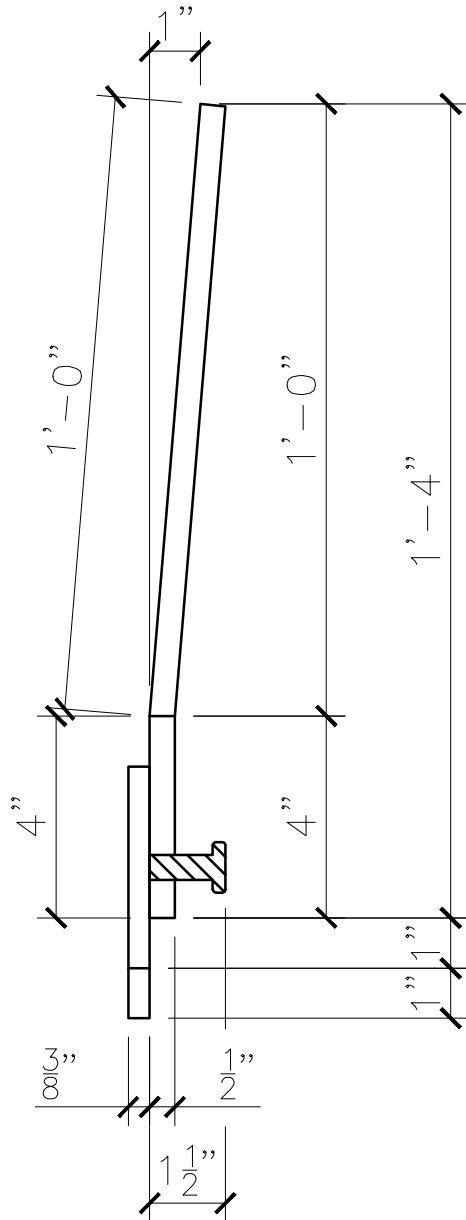
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ITEM COST

\$. - / /

25-4460

Olin Chemical Building
HARDWARE



WELDING IN ACCORDANCE WITH:
AWS D1.1 AMERICAN WELDING SOCIETY: STRUCTURAL WELDING CODE-STEEL
AWS D1.4 AMERICAN WELDING SOCIETY: STRUCTURAL WELDING CODE-REINFORCING STEEL

PROJECT: _	ORDER HISTORY		TOTAL QUANTITY NEEDED FOR JOB →	QUANTITY —
	DATE	QTY.		
PROJECT NO.: STANDARDS	—	—	DRAWN BY: MJR	FINISH: HOT DIPPED CALVANIZED
	—	—		
	ITEM COST		ISSUE DATE: 16/5/14	APPROVAL:
	\$. — / /			
			HARDWARE ITEM P202G	

Olin Chemical Building

HARDWARE

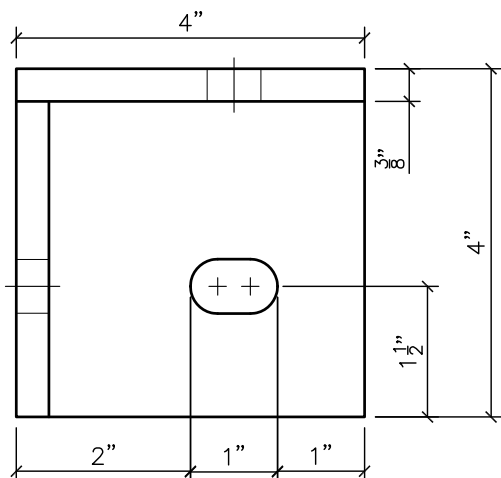
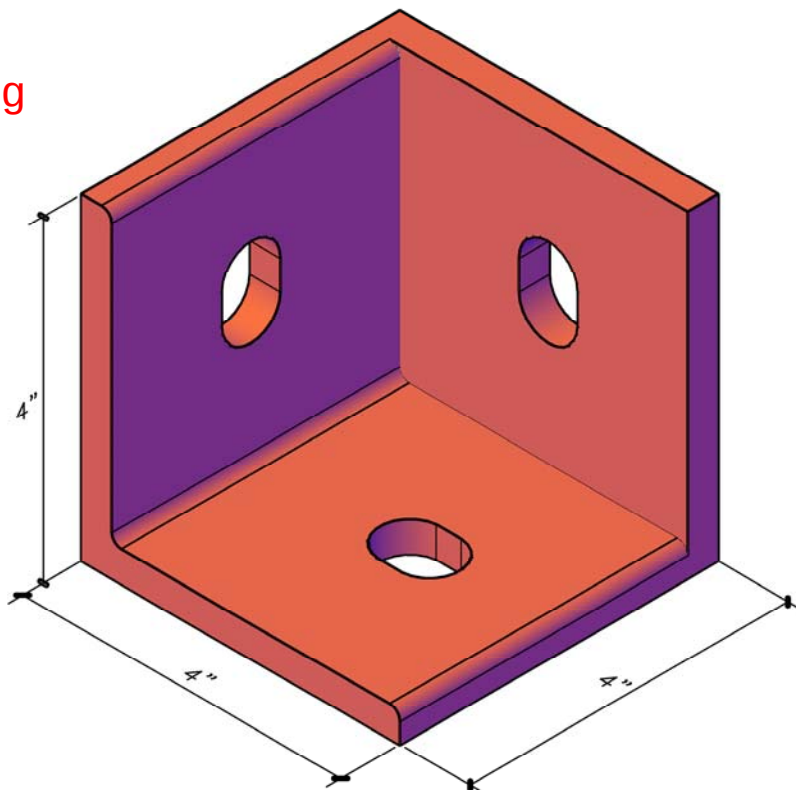


PROJECT: _____ PROJECT NO.: _____ STANDARDS _____	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">ORDER HISTORY</th> </tr> <tr> <th style="width: 50%;">DATE</th> <th style="width: 50%;">QTY.</th> </tr> <tr> <td style="text-align: center;">—</td> <td style="text-align: center;">—</td> </tr> <tr> <td style="text-align: center;">—</td> <td style="text-align: center;">—</td> </tr> <tr> <td style="text-align: center;">—</td> <td style="text-align: center;">—</td> </tr> </table>	ORDER HISTORY		DATE	QTY.	—	—	—	—	—	—	<table style="width: 100%;"> <tr> <td style="width: 60%; text-align: center;"> TOTAL QUANTITY NEEDED FOR JOB → </td> <td style="width: 40%; text-align: center;"> QUANTITY — </td> </tr> </table>	TOTAL QUANTITY NEEDED FOR JOB →	QUANTITY —
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DATE	QTY.													
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5119 Catlett Rd. • Midland, VA 22728 • info@EasiSet.com www.EasiSet.com • 800-547-4045 • Fax 540-439-7541	<table style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;"> ITEM COST \$. — / / </td> <td style="width: 50%;"> <table style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;"> DRAWN BY: MJR </td> <td style="width: 50%; text-align: center;"> FINISH: HOT DIPPED GALVANIZED </td> </tr> <tr> <td style="text-align: center;"> ISSUE DATE: 16/05/14 </td> <td style="text-align: center;"> APPROVAL: </td> </tr> </table> </td> </tr> </table>	ITEM COST \$. — / /	<table style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;"> DRAWN BY: MJR </td> <td style="width: 50%; text-align: center;"> FINISH: HOT DIPPED GALVANIZED </td> </tr> <tr> <td style="text-align: center;"> ISSUE DATE: 16/05/14 </td> <td style="text-align: center;"> APPROVAL: </td> </tr> </table>	DRAWN BY: MJR	FINISH: HOT DIPPED GALVANIZED	ISSUE DATE: 16/05/14	APPROVAL:	<table style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;"> HARDWARE ITEM P203G </td> </tr> </table>	HARDWARE ITEM P203G					
ITEM COST \$. — / /	<table style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;"> DRAWN BY: MJR </td> <td style="width: 50%; text-align: center;"> FINISH: HOT DIPPED GALVANIZED </td> </tr> <tr> <td style="text-align: center;"> ISSUE DATE: 16/05/14 </td> <td style="text-align: center;"> APPROVAL: </td> </tr> </table>	DRAWN BY: MJR	FINISH: HOT DIPPED GALVANIZED	ISSUE DATE: 16/05/14	APPROVAL:									
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ISSUE DATE: 16/05/14	APPROVAL:													
HARDWARE ITEM P203G														

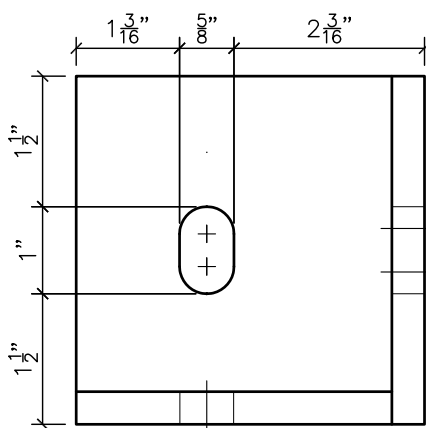
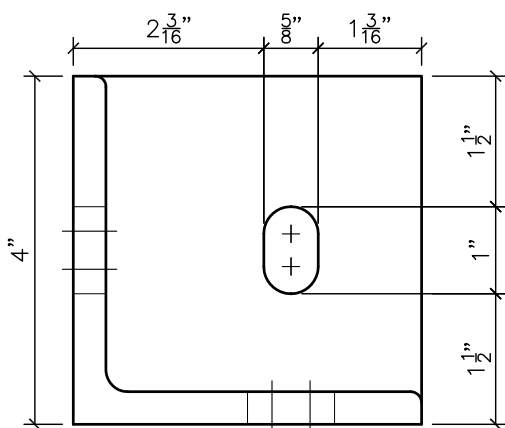
25-4460

Olin Chemical Building

HARDWARE



L 4"x4"x $\frac{3}{8}$ "x0'-3 $\frac{5}{8}$ " (A36)
W/ PL $\frac{3}{8}$ "x4"x4" (A36)
AND (3) $\frac{5}{8}$ "x1" SLOTS



TYP WALL-TO-FLOOR
CORNER

PROJECT:
STANDARD ERECTION MATERIAL

PROJECT NO.:
ESW STANDARDS

ORDER HISTORY

DATE QTY.

- -

- -

- -

TOTAL QUANTITY
NEEDED FOR JOB

QUANTITY

-

DRAWN BY:

-

FINISH:

GALV.

ISSUE DATE:

11-07-13

APPROVAL:

HARDWARE ITEM

E101G



EASI-SET® WORLDWIDE
5119 Catlett Rd. • Midland, VA 22728 • info@EasiSet.com
www.EasiSet.com • 800-547-4045 • Fax 540-439-2541

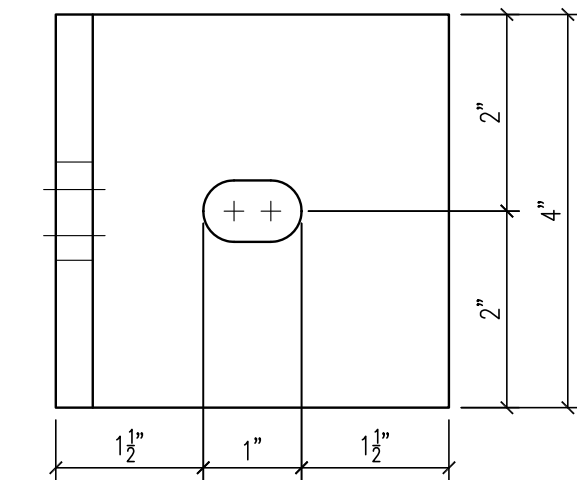
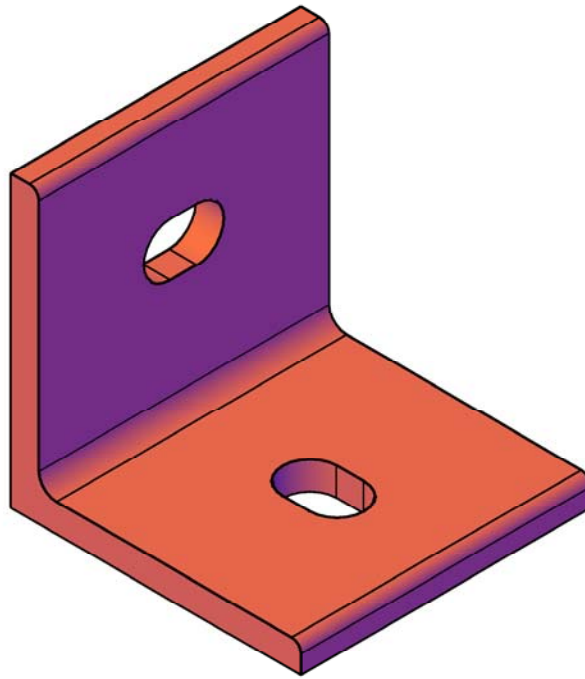
ITEM COST

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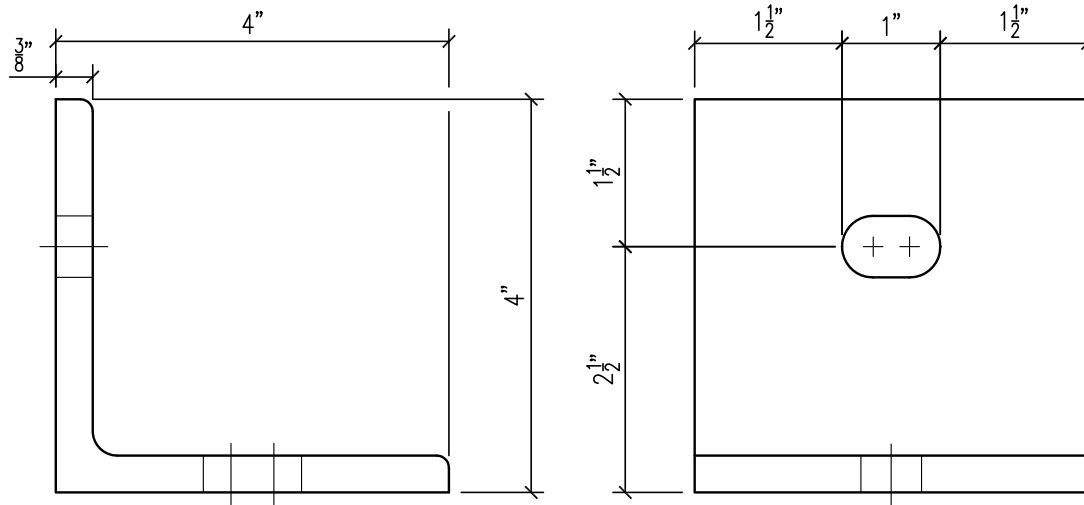
25-4460

Olin Chemical Building

HARDWARE



L 4"x4"x $\frac{3}{8}$ "x0'-4"
W/ (2) $\frac{5}{8}$ "x1" SLOTS (A36)



TYP WALL-TO-FLOOR
MID-SPAN

PROJECT:
STANDARD ERECTION MATERIAL

PROJECT NO.:
ESW STANDARDS

ORDER HISTORY	
DATE	QTY.
-	-
-	-
-	-

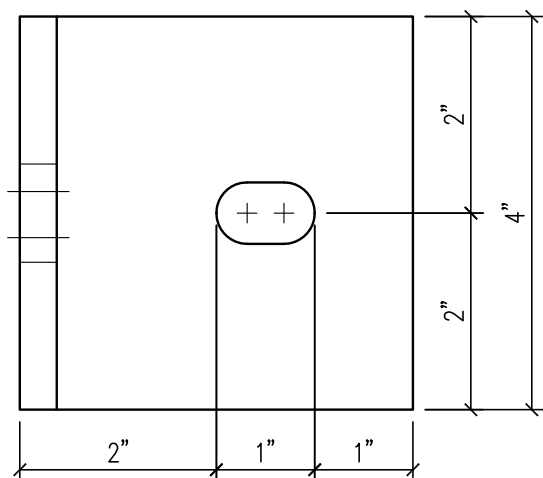
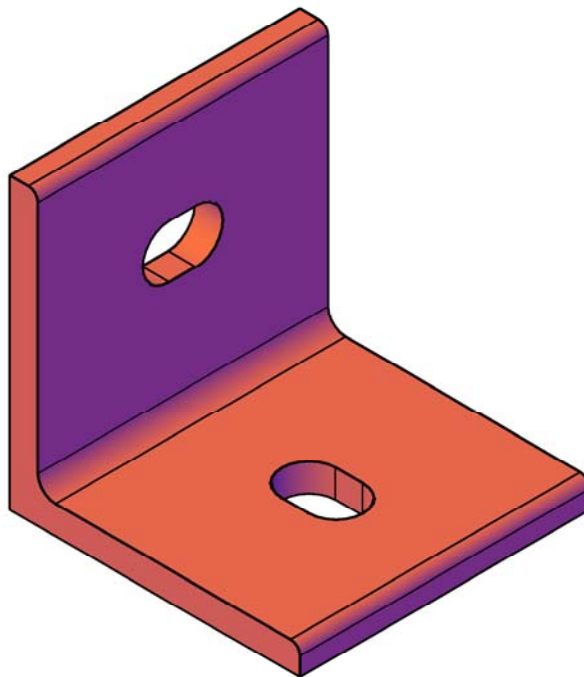
TOTAL QUANTITY NEEDED FOR JOB		QUANTITY —
DRAWN BY: —	FINISH: GALVANIZED	HARDWARE ITEM E102G
ISSUE DATE: 11-07-13	APPROVAL:	

ITEM COST	
\$.	- / /

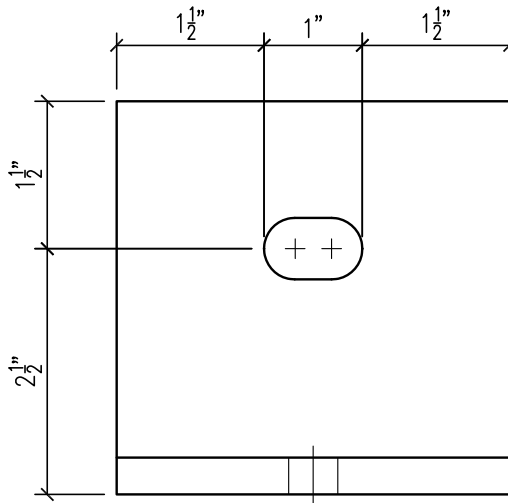
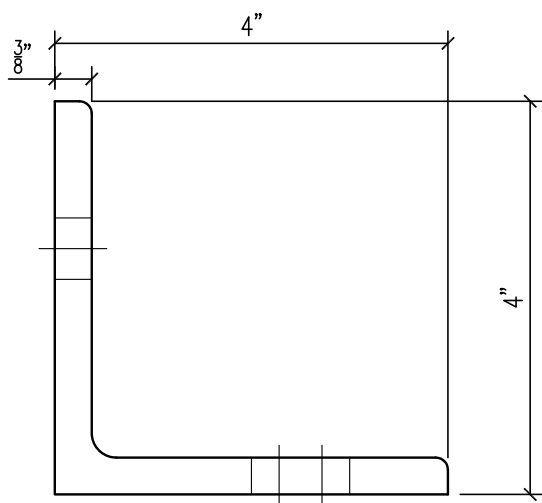
25-4460

Olin Chemical Building

HARDWARE



L 4"x4"x $\frac{3}{8}$ "x0'-4"
W/ (2) $\frac{5}{8}$ "x1" SLOTS (A36)



TYP WALL-TO-WALL &
WALL-TO-ROOF

PROJECT:

STANDARD ERECTION MATERIAL

PROJECT NO.:

ESW STANDARDS

ORDER HISTORY

DATE

QTY.

-

-

-

-

-

-

TOTAL QUANTITY
NEEDED FOR JOB

QUANTITY

-

DRAWN BY:

-

FINISH:

GALVANIZED

ISSUE DATE:

11-07-13

APPROVAL:

HARDWARE ITEM

E103G



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ITEM COST

\$. - / /