

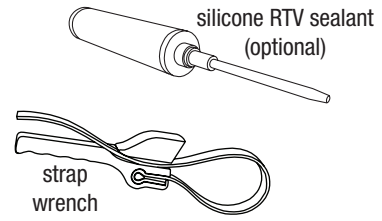
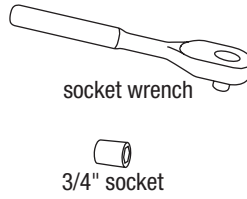
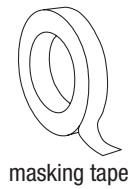
LIGHT COLUMN BOLLARD

SC30 SECURITY CORE INSTALLATION INSTRUCTIONS

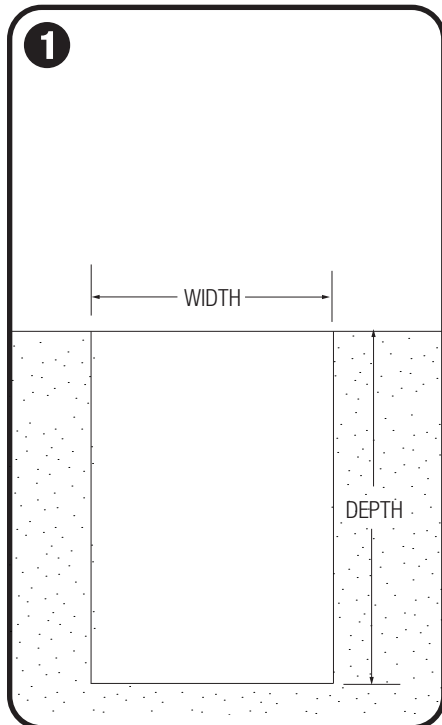
MATERIALS INCLUDED



TOOLS NEEDED

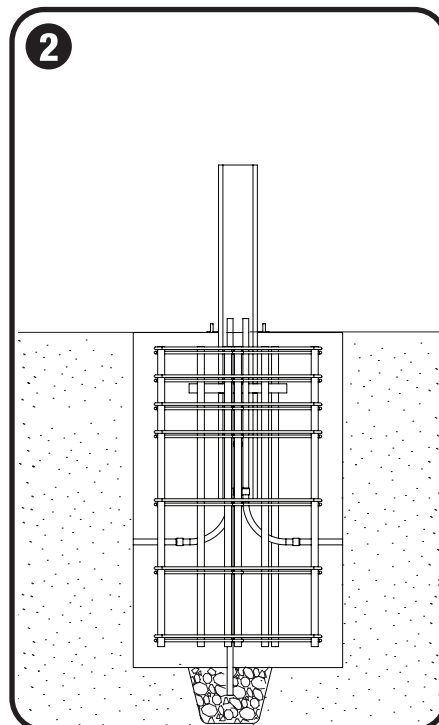


STEP BY STEP FOR ALL LIGHT COLUMN BOLLARDS WITH SC30 SECURITY MOUNTING



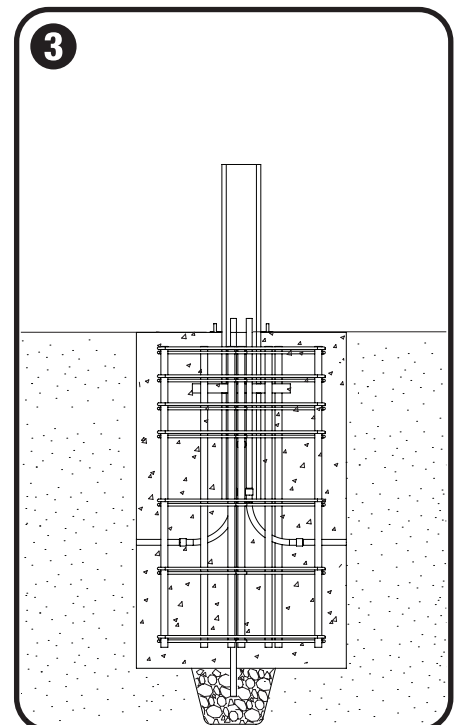
Create space for footer

- A sufficient footer size depends on frost and other conditions to be determined by the installer. A minimum of an 30" x 30" wide x 48" deep footer is recommended for a single SC30-P1 bollard installation.



Prepare foundation and position security core

- Refer to foundation detail drawings for specifications required to support SC30 security rating.
 - Position security core in desired final location and prepare rebar per foundation drawings.
 - The bottom of the base plate should be level with the ground surface.
- NOTE: The security core also serves as a conduit path.



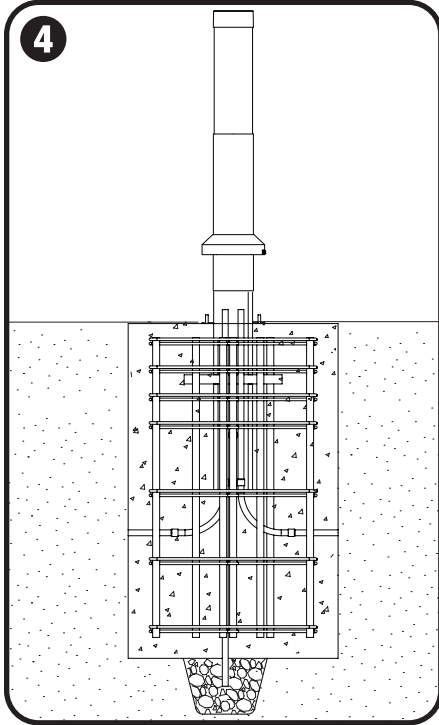
Pour concrete foundation

- Mix and pour concrete according to concrete manufacturer's instructions.
 - As soon as concrete is poured, verify levelness.
 - Allow concrete to cure completely according to concrete manufacturer's instructions before removing any temporary supports or installing fixture.
- NOTE: Security core will need to be free of moisture prior to fixture installation.

LIGHT COLUMN BOLLARD

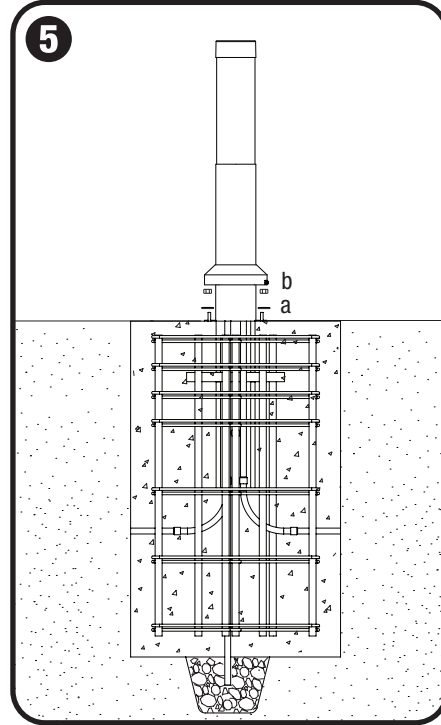
SC30 SECURITY CORE INSTALLATION INSTRUCTIONS

STEP BY STEP FOR ALL LIGHT COLUMN BOLLARDS WITH SC30 SECURITY MOUNTING



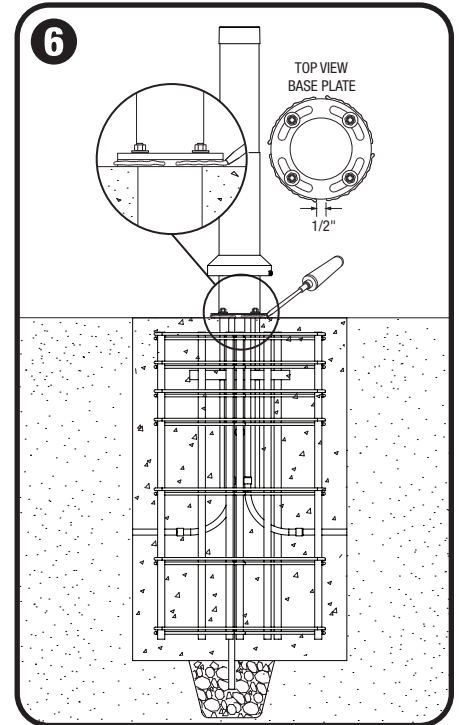
Position bollard over security core

- Inspect security core for moisture. If moisture is present, dry immediately before installing fixture. Do not install fixture unless security core is completely dry.
- Slide bollard over security core so threaded pegs slide through holes in bollard base plate.
- Carefully use masking tape to tape escutcheon cover further up the body until installation is complete.



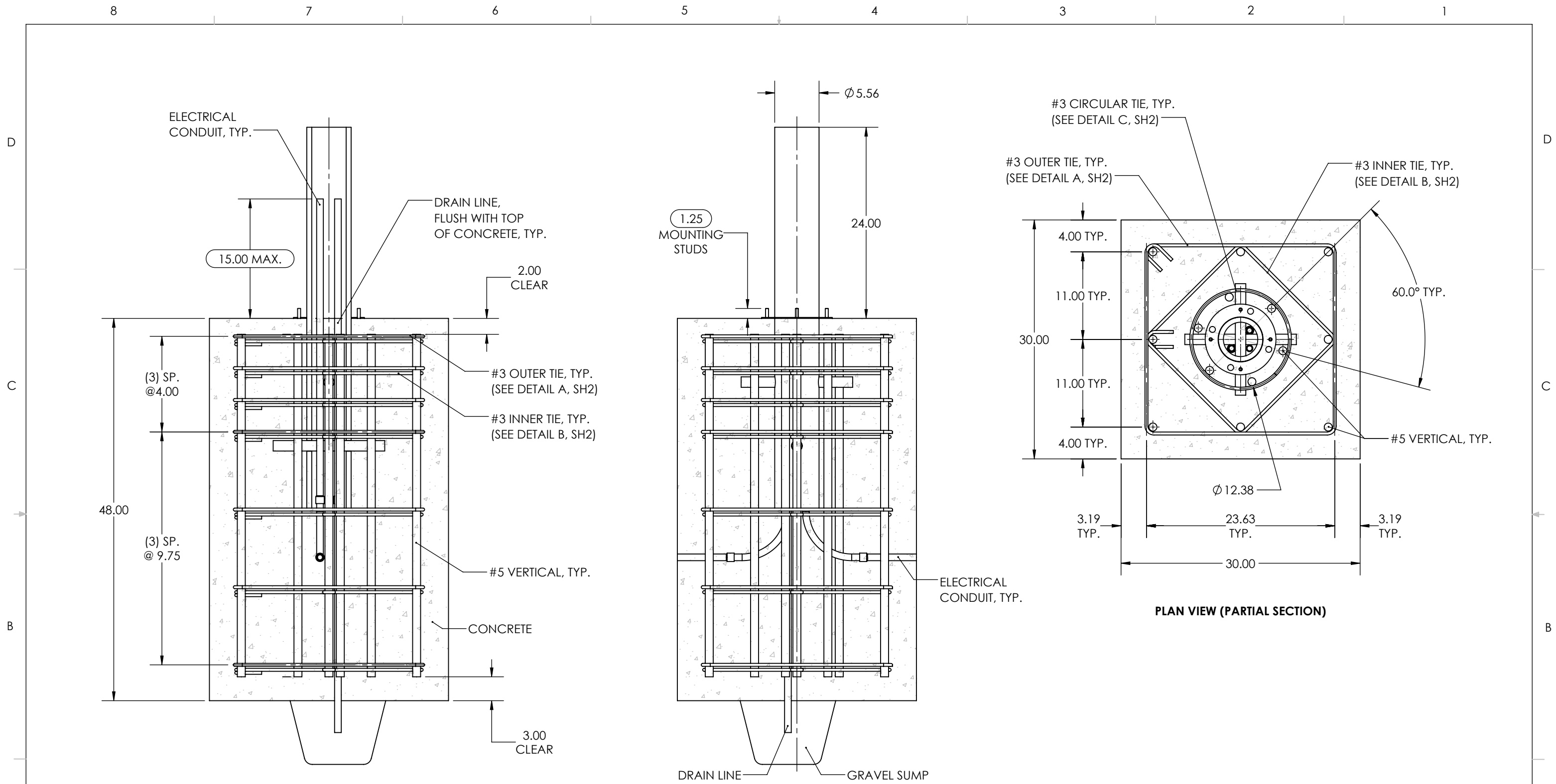
Attach bollard to security core

- Slide 1/2" washer (a), then thread 1/2"-13 nut (b) onto each threaded peg.
- Use 3/4" socket and socket wrench to tighten all nuts until snug.



Apply sealant to permanently attach escutcheon cover (optional) and lower onto base

- Apply a thick bead of silicone RTV sealant around the vertical edge of the base plate.
NOTE: Leave four 1/2" gaps to allow for water drainage.
- Lower escutcheon cover to ground level and wipe away any excess sealant.



END VIEW (PARTIAL SECTION)

SIDE VIEW (PARTIAL SECTION)

PLAN VIEW (PARTIAL SECTION)

UNLESS OTHERWISE SPECIFIED:
 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM
 2. TOLERANCES
 FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°
 TWO PLACE DECIMAL ±.030
 THREE PLACE DECIMAL ±.020
 3. REMOVE ALL BURRS AND SHARP EDGES

THIRD ANGLE PROJECTION

MATERIAL: N/A

FINISH: N/A

WEIGHT: N/A

SCALE: NOT TO SCALE

FORMS+SURFACES 30 Pine Street, Pittsburgh, PA 15223
 Tel (412) 781-9003 Fax (412) 781-7840

NAME	DATE	DESCRIPTION:
DWN	RTS	10/15/21
CHK		

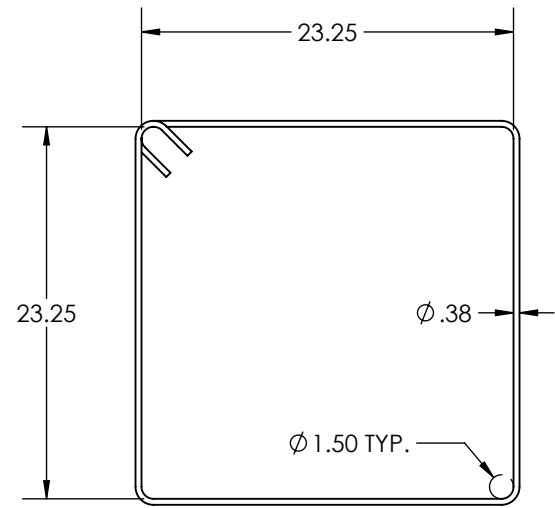
DO NOT SCALE DRAWING

SC30-P1 SECURITY CORE, LIGHT COLUMN STANDALONE FOUNDATION

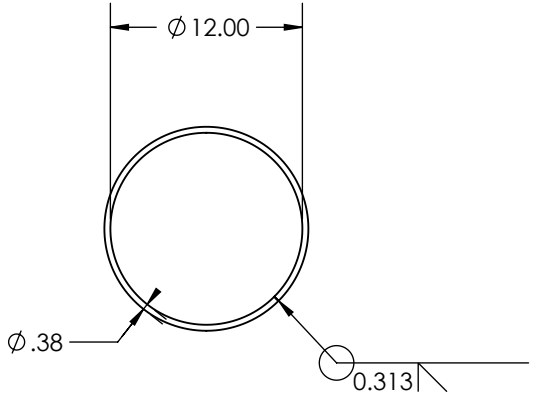
SIZE	DWG. NO.	REV	SHEET
B	SC30-LBLCB-SINGLE-INSTALL	0	1 OF 2

PROPRIETARY AND CONFIDENTIAL
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF FORMS + SURFACES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT WRITTEN PERMISSION IS PROHIBITED.

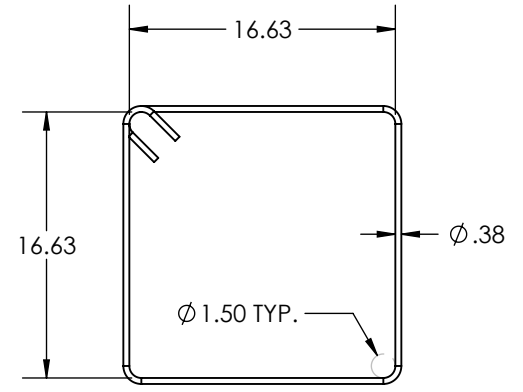
REV.	DESCRIPTION	REVISED BY	DATE
0	INITIAL RELEASE	-----	-----



**DETAIL A
#3 OUTER TIE, TYP.**



**DETAIL C
#3 CIRCULAR TIE, TYP.**



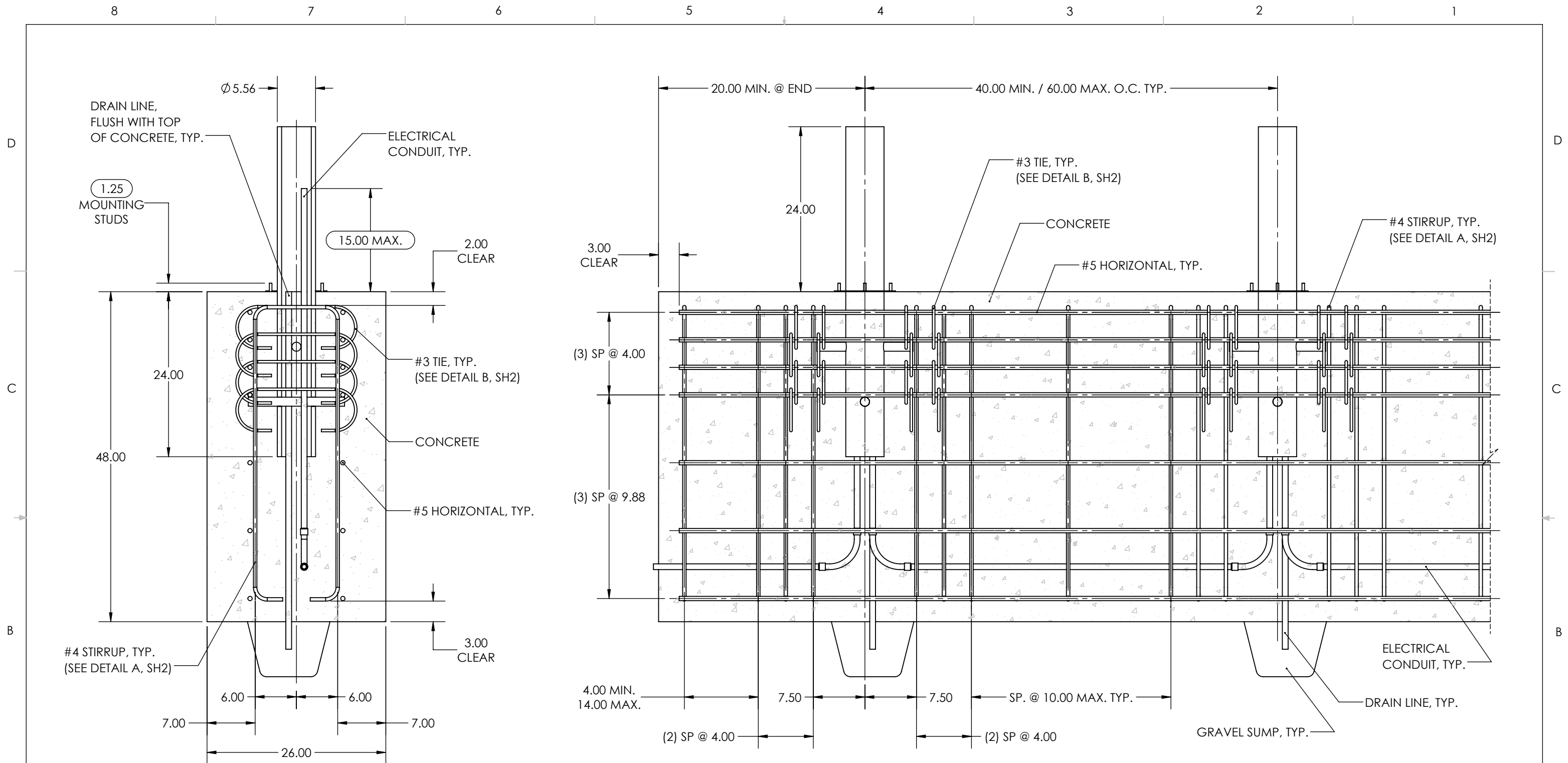
**DETAIL B
#3 INNER TIE, TYP.**

REBAR CHART	
BAR SIZE	DIAMETER
#3	Ø 0.375
#5	Ø 0.625

NOTES:

- FOOTINGS HAVE BEEN DESIGNED TO BEAR ON UNDISTURBED SOIL OR PROPERLY COMPACTED ENGINEERED FILL ASSUMING A NET BEARING CAPACITY OF 2000 PSF.
- REINFORCED CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) AND THE SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301) OF THE AMERICAN CONCRETE INSTITUTE (EDITIONS AS REQUIRED BY GOVERNING CODE).
- CAST-IN-PLACE CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH (F'C) OF 5000 PSI UNO.
- PROVIDE 6% (+/-1.5%) AIR ENTRAINMENT IN CONCRETE EXPOSED TO FREEZE/THAW.
- DEFORMED BAR REINFORCEMENT SHALL BE ASTM A615, GRADE 60; SEE CHART FOR SIZING.
- REINFORCEMENT SHALL BE SECURELY HELD IN PLACE WHILE PLACING CONCRETE. IF REQUIRED, ADDITIONAL BARS, STIRRUPS, OR CHAIRS SHALL BE PROVIDED TO FURNISH SUPPORT FOR SPECIFIED BARS.

UNLESS OTHERWISE SPECIFIED: 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM 2. TOLERANCES FRACTIONAL: ±1/32; ANGULAR/BEND: ±1° TWO PLACE DECIMAL ±.030 THREE PLACE DECIMAL ±.020 3. REMOVE ALL BURRS AND SHARP EDGES		30 Pine Street, Pittsburgh, PA 15223 Tel (412) 781-9003 Fax (412) 781-7840	
MATERIAL: N/A FINISH: N/A WEIGHT: N/A SCALE: NOT TO SCALE		NAME: DWN DATE: 10/15/21	DESCRIPTION: FORMS+SURFACES SC30-P1 SECURITY CORE, LIGHT COLUMN STANDALONE FOUNDATION
REV. 0 INITIAL RELEASE REV. 1 DESCRIPTION REVISED BY DATE		CHECKED: CHK DO NOT SCALE DRAWING PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF FORMS + SURFACES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT WRITTEN PERMISSION IS PROHIBITED.	SIZE: B DWG. NO.: SC30-LBLCB-SINGLE-INSTALL REV: 0 SHEET: 2 OF 2



SIDE VIEW (PARTIAL SECTION)

END VIEW (PARTIAL SECTION)

UNLESS OTHERWISE SPECIFIED:

1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM
2. TOLERANCES
 FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°
 TWO PLACE DECIMAL ±.030
 THREE PLACE DECIMAL ±.020
 3. REMOVE ALL BURRS AND SHARP EDGES

MATERIAL: N/A

FINISH: N/A

WEIGHT: N/A

SCALE: NOT TO SCALE



30 Pine Street, Pittsburgh, PA 15223
Tel (412) 781-9003 Fax (412) 781-7840

NAME	DATE
DWN	RTS
CHK	10/15/21

DO NOT SCALE DRAWING

PROPRIETARY AND CONFIDENTIAL
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF FORMS + SURFACES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT WRITTEN PERMISSION IS PROHIBITED.

DESCRIPTION:
FORMS+SURFACES
SC30-P1 SECURITY CORE, LIGHT COLUMN
CONTINUOUS STRIP FOUNDATION

SIZE	DWG. NO.	REV	SHEET
B	SC30-LBLCB-STRIP-INSTALL	0	1 OF 2

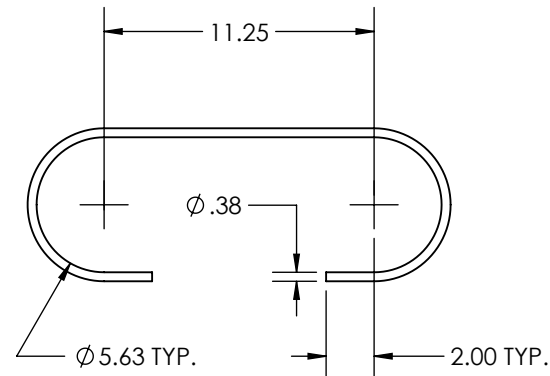
REV.	DESCRIPTION	REVISED BY	DATE
0	INITIAL RELEASE	-----	-----

D
C
B
A

D
C
B
A



**DETAIL A
#4 STIRRUP, TYP.**



**DETAIL B
#3 TIE, TYP.**

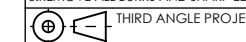
REBAR CHART	
BAR SIZE	DIAMETER
#3	Ø 0.375
#4	Ø 0.500
#5	Ø 0.625

NOTES:

1. FOOTINGS HAVE BEEN DESIGNED TO BEAR ON UNDISTURBED SOIL OR PROPERLY COMPACTED ENGINEERED FILL ASSUMING A NET BEARING CAPACITY OF 2000 PSF.
2. REINFORCED CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) AND THE SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301) OF THE AMERICAN CONCRETE INSTITUTE (EDITIONS AS REQUIRED BY GOVERNING CODE).
3. CAST-IN-PLACE CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH (FC) OF 5000 PSI UNO.
4. PROVIDE 6% (+/-1.5%) AIR ENTRAINMENT IN CONCRETE EXPOSED TO FREEZE/THAW.
5. DEFORMED BAR REINFORCEMENT SHALL BE ASTM A615, GRADE 60; SEE CHART FOR SIZING.
6. REINFORCEMENT SHALL BE SECURELY HELD IN PLACE WHILE PLACING CONCRETE. IF REQUIRED, ADDITIONAL BARS, STIRRUPS, OR CHAIRS SHALL BE PROVIDED TO FURNISH SUPPORT FOR SPECIFIED BARS.

UNLESS OTHERWISE SPECIFIED:

1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM
2. TOLERANCES
FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°
TWO PLACE DECIMAL ±.030
THREE PLACE DECIMAL ±.020
3. REMOVE ALL BURRS AND SHARP EDGES



MATERIAL: N/A

FINISH: N/A

WEIGHT: N/A

SCALE: NOT TO SCALE



30 Pine Street, Pittsburgh, PA 15223
Tel (412) 781-9003 Fax (412) 781-7840

NAME	DATE
DWN	RTS
CHK	

DO NOT SCALE DRAWING

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF FORMS + SURFACES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT WRITTEN PERMISSION IS PROHIBITED.

DESCRIPTION:			
FORMS+SURFACES			
SC30-P1 SECURITY CORE, LIGHT COLUMN			
CONTINUOUS STRIP FOUNDATION			
SIZE	DWG. NO.	REV	SHEET
B	SC30-LBLCB-STRIP-INSTALL	0	2 OF 2

REV.	DESCRIPTION	REVISED BY	DATE
0	INITIAL RELEASE	-----	-----