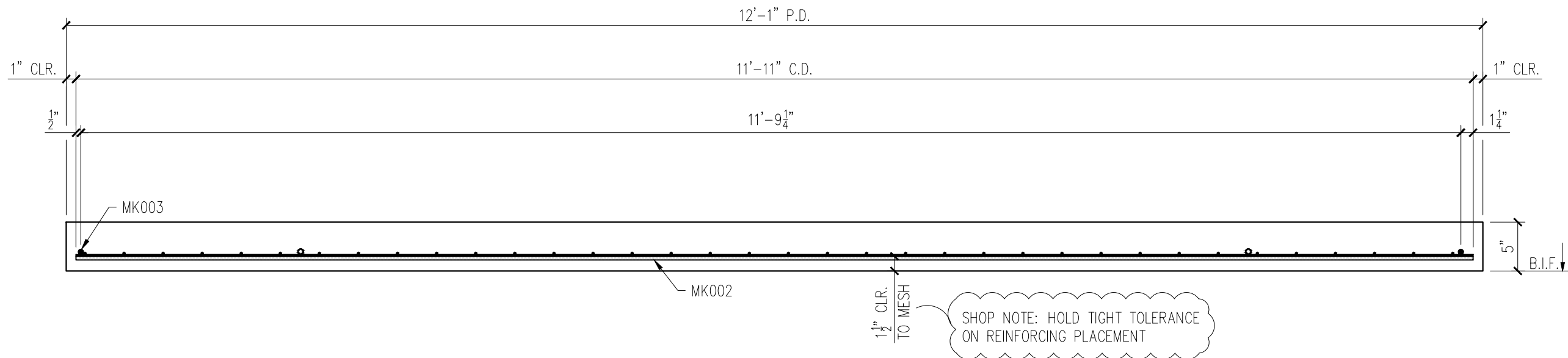
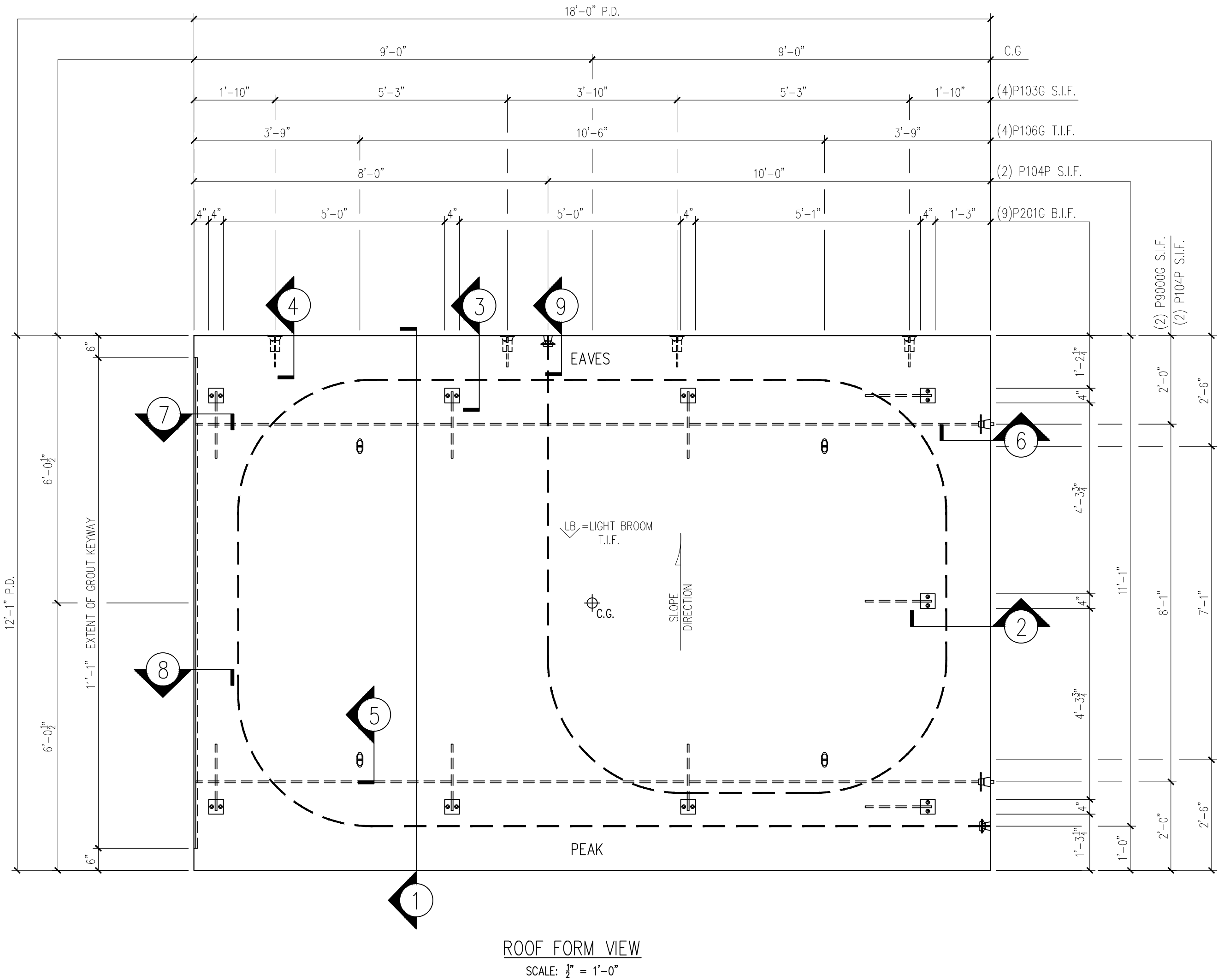


25-3470
CCHS Precast Buildings
Pressbox
ID - CVT
Roof - RP-04
Weight - 13,595
1 Required



MESSAGE CENTER

1. REFER TO DETAILS FOR REINFORCEMENT/CABLE PLACEMENT

2. SHOP TICKET SHOWS EXTERIOR FINISH CAST FACE UP

CHECKED BY: DATE:

APPROVED BY: DATE:

BILL OF MATERIALS		
MARK #	DESCRIPTION	QTY.
P201G	4"x4"x $\frac{7}{8}$ " W/(2) $\frac{3}{8}$ "x1 $\frac{1}{2}$ " H.A.S. W/1'-4" BENT REBAR (GALVANIZED)	9
P104P	U-5 POST TENSION ANCHOR (PLAIN) WITH PLASTIC POCKET	4
P103G	2 TON TECH ERECTION ANCHOR (GALV.)	4
P106G	2 TON PLATE ANCHOR (GALV.)	4
P9000G	1"Ø E.M.T. TUBE 17'-8" LONG (GALV.)	2

HANDLING INSTRUCTIONS

STRIPPING-TILT TABLE

SHIPPING

YARD STORAGE

ERECTION

CONCRETE INSTRUCTIONS	
CONCRETE @ RELEASE: 2,500 P.S.I.	
CONCRETE @ 28 DAYS: 5,000 P.S.I.	
POST-TENSION @ 3,500 P.S.I.	
CONCRETE MIXES	
CONCRETE - GRAY	VOLUME = 3.35 C.Y.
CONCRETE - MIX 1	VOLUME = - C.Y.
CONCRETE - MIX 2	VOLUME = - C.Y.
SOFT SOUND	VOLUME = - C.Y.
TOTALS	VOLUME = 3.35 C.Y.
WEIGHT: 13,595 LBS.	
FINISHING INSTRUCTIONS	
LB = LIGHT BROOM FINISH	
FF = FORM FINISH	
L = 12'-1"	SQ.FT.(T.I.F.) = 217.50
W = 18'-0"	SQ.FT.(T.I.F.) = -
D = 5"	SQ.FT.(T.I.F.) = -
CONTROL NUMBERS:	
-	
-	
PRODUCT	SALES ORDER NUMBER
BUILDING	-
SHEET NUMBER	NUMBER REQUIRED
1 OF 2	1

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REV	INI.	DESCRIPTION	DATE
1	-		-
2	-		-
3	-		-
4	-		-

PROJECT: 34'x10'x22' SOCCER PRESSBOX
5185 FORT CAMPBELL BOULEVARD
HOPKINSVILLE, KY 42240
CONTRACTOR: CHRISTIAN COUNTY SCHOOLS

SCALE
NTS

DRAWN BY
FTL

CHECK BY
WCR

ISSUE DATE
07.14.26

PIECE MARK
RP-04

PT Check for Roof Panels RP-03/RP-04 (PCI MNL -

Material Data

(7) Wire lo-lax Strand - ASTM A416

Φ_{ps} 0.500 in,

A_s 0.153 in²

E_s 28500000 psi

f_{pu} 270 ksi

Strand Length **784 in**

Assume (Info supplied by strand manufacturer)

k = 0.0007 Wobble Friction Coeff.

μ = 0.05 Curvature friction coeff. (Initial tension of 3,000 lbs)

Strand is to be stressed 70% of ultimate

= 28917 lbs

Adjustments to tensioning

1) Dead end anchor wedge seating loss

~ Expected to be 1/8 in

2) Live end anchor wedge seating loss

~ Expected to be 1/8 in, recommend over pull 1/8"

3) Elastic Shortening

Neglect for this pnl

4) Friction Loss

Additional force to overcome frictional forces between strand and sheathing

Tensioning Computations

Basic Elongation = $\frac{(\text{Force required beyond initial tension}) (\text{Length of strand between anchorages})}{(\text{Area of strand}) (\text{Modulus of Elasticity})}$

= 4.66 in

Adjustments

a) Dead end anchor wedge seating: Add 1/8" to elong. No force adjustment req'd

Add 1/8 in

b) Live end seating: over pull by 1/8"

1/8 in

Force adjustment $t = \frac{695 \text{ lbs}}{695 \text{ lbs}} \alpha = \text{curvature} = \pi(2.5) = 7.85 \text{ radians}$

c) Friction losses $\frac{PD}{PS} = e^{-(kL + \mu\alpha)}$

= 0.645

Avg. strand force = 0.823 17.75% Loss

Recommend sequential jacking at both ends of the tendon be used to reduce the overstressing the strand at the live end

Friction loss at mid-point of tendon

$\frac{PD}{PS} = e^{-\frac{(kL + \mu\alpha)}{2}}$

= 0.803

Avg. strand force over

half of tendon = 0.902 9.84% Loss

Total force and elongation at live end must be increased to compensate for friction losses

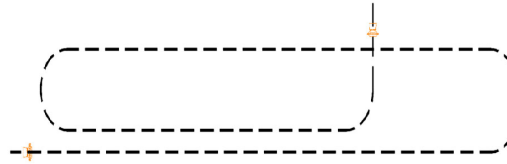
Elong. Adjustment = 0.459 in

Force Adjustment = 2846 lbs

Total Force Required = 32458 lbs **OK**

Elongation Summary:

Gross Theoretical Elongation			
Basic Elongation		4.66 in	
Dead End Seating Loss		0.125 in	
Live End Seating Loss		0.125 in	
Friction Losses		0.459 in	
Total Elongation		5.37 in	
Rounded		5 6/16 in	
Tolerance limits	-7.0%	4.99 in	5 in
	+7.0%	5.74 in	5 12/16 in



Cable Configuration

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