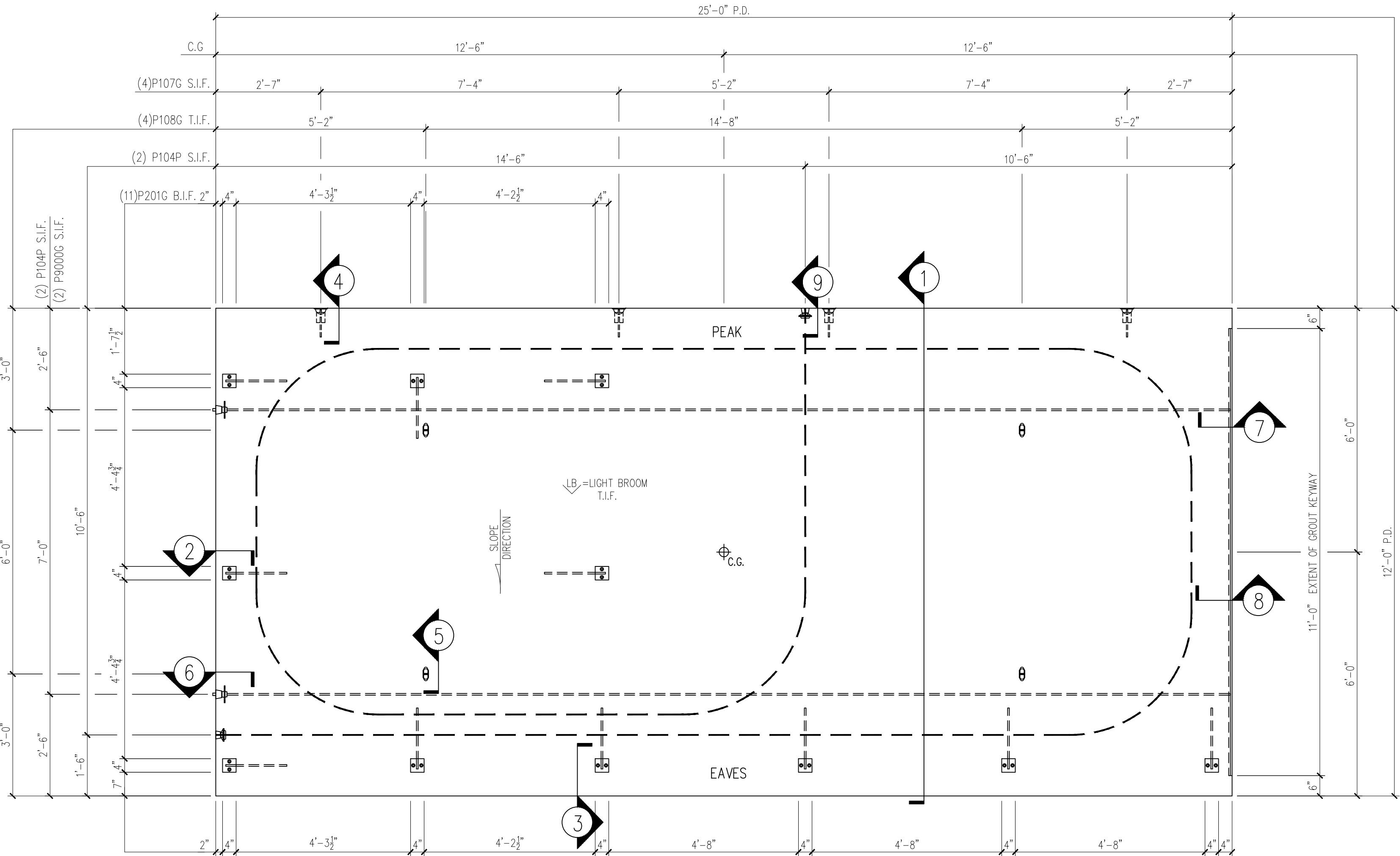
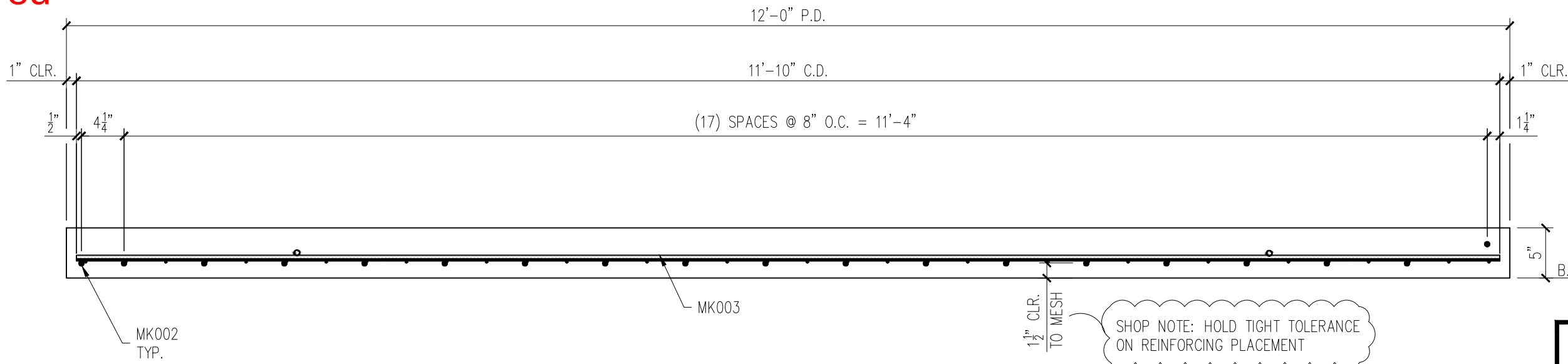


25-3470
CCHS Precast Buildings
Right Hand Dugout

ID - CVT
Roof - RP-02
Weight - 18,750
1 Required



ROOF FORM VIEW
SCALE: $\frac{1}{2}'' = 1'-0''$



MESSAGE CENTER

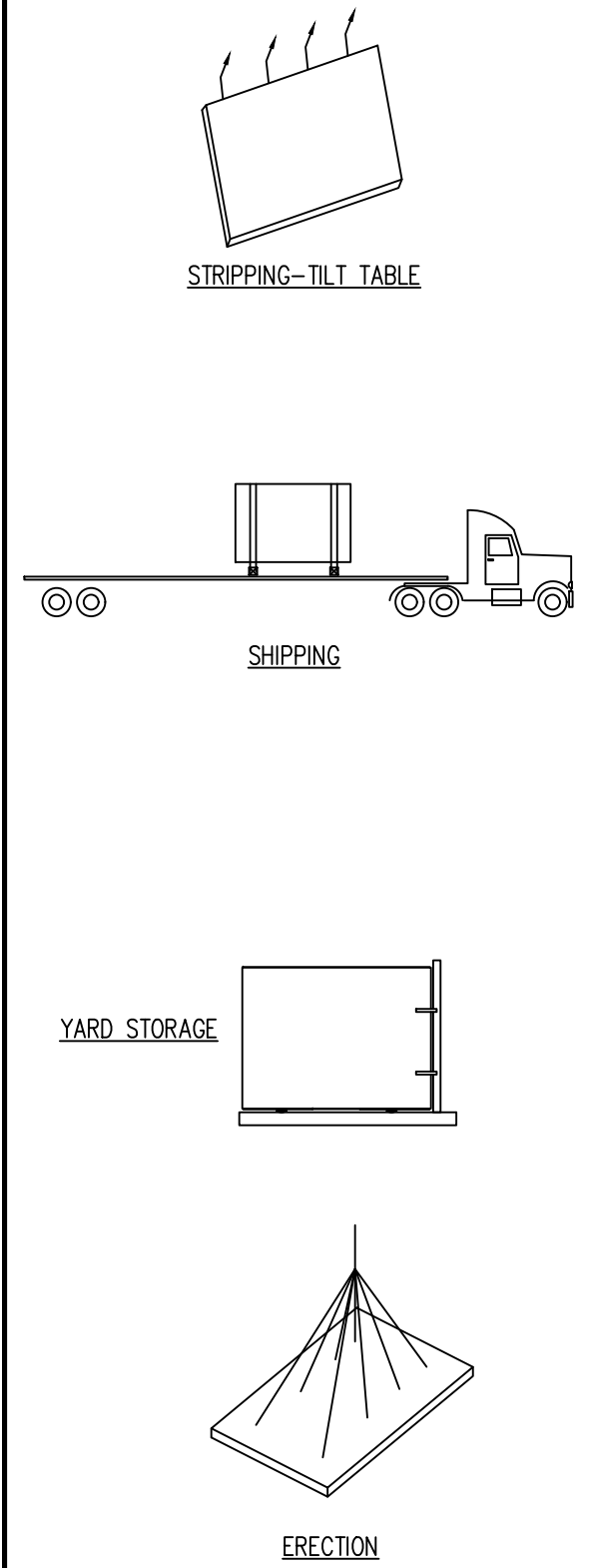
1. REFER TO DETAILS FOR REINFORCEMENT/CABLE PLACEMENT
2. SHOP TICKET SHOWS EXTERIOR FINISH CAST FACE UP

CHECKED BY: DATE:
APPROVED BY: DATE:

1

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)	11
P104P	U-5 POST TENSION ANCHOR (PLAIN) WITH PLASTIC POCKET	4
P107G	4 TON RL-4 TECH ERECTION ANCHOR (79548SP) (GALVANIZED)	4
P108G	4 TON RL-24 PLATE ANCHOR (79128) (GALVANIZED)	4
P9000G	1"Ø E.M.T. TUBE 24'-10 $\frac{1}{2}$ " LONG (GALV.)	2

HANDLING INSTRUCTIONS



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 = 4.62 C.Y.
CONCRETE - MIX 1	VOLUME = - C.Y.
CONCRETE - MIX 2	VOLUME = - C.Y.
SOFT SOUND	VOLUME = - C.Y.
TOTALS	VOLUME = 4.62 C.Y.
WEIGHT: 18,750 LBS.	
FINISHING INSTRUCTIONS	
LB = LIGHT BROOM FINISH	
FF = FORM FINISH	
L = 12'-0"	SQ.FT.(T.I.F.) = 300.0
W = 25'-0"	SQ.FT.(T.I.F.) = -
D = 5"	SQ.FT.(T.I.F.) = -
CONTROL NUMBERS:	
-	
-	
PRODUCT BUILDING	SALES ORDER NUMBER -
SHEET NUMBER 1 OF 2	NUMBER REQUIRED 1

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www.EasiSet.com • 800-547-4045 • Fax 540-439-2541

REV	INI.	DESCRIPTION	DATE
1	-		-
2	-		-
3	-		-
4	-		-
5	-		-

PROJECT: 50'x10'x9'-10" SOFTBALL DUGOUT
5185 FORT CAMPBELL BOULEVARD
HOPKINSVILLE, KY 42240
CONTRACTOR: CHRISTIAN COUNTY SCHOOLS

SCALE NTS
DRAWN BY FTL
CHECK BY WCR
ISSUE DATE 07.22.26
PIECE MARK RP-02

PT Check for Roof Panels RP-01 & 02 (PCI MNL - 1)

Material Data

(7) Wire lo-lax Strand - ASTM A416

Φ_{ps} 0.500 in,

A= 0.153 in²

E= 28500000 psi

f_{pu} 270 ksi

Strand Length 990 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 = $\frac{(\text{Force required beyond initial tension}) (\text{Length of strand between anchorages})}{(\text{Area of strand}) (\text{Modulus of Elasticity})}$

= 5.88 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 = 551 lbs lbs α = curvature = $\pi(2.5)$ 7.85 radians

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

= 0.637

Avg. strand force = 0.819 18.13% 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

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

= 0.798

Avg. strand force over

half of tendon = 0.899 10.08% Loss

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

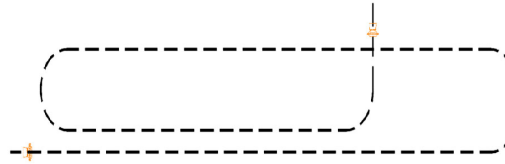
Elong. Adjustment = 0.593 in

Force Adjustment = 2916 lbs

Total Force Required = 32383 lbs **OK**

Elongation Summary:

Gross Theoretical Elongation			
Basic Elongation	5.88 in		
Dead End Seating Loss	0.125 in		
Live End Seating Loss	0.125 in		
Friction Losses	0.593 in		
Total Elongation	6.73 in		
Rounded	6 12/16 in		
Tolerance limits	-7.0%	6.26 in	6 4/16 in
	+7.0%	7.20 in	7 3/16 in



Cable Configuration

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