

Name _____
 Legal Desc. _____
 Layout by _____
 Designed by _____
 Checked by _____
 Approved by _____

Ident. No. _____
 County _____
 Date _____
 Date _____
 Date _____
 Date _____

Before any investigation or construction activity, the excavator is responsible for calling Kansas One-Call at 800-344-7233 (800-DIG-SAFE).

Design Information

System is: (Mark one for each selection below)

Intermittent

Continuous

Crop _____ Field Slope _____ %

Soil _____ Intake Family _____

Row Spacing _____ inches

Number of Sets (N): 2 or 1

Irrigation Set Time (Ti) _____ hours

Primary Source Pumping Rate (Q) _____ gpm

Pump-Back Tailwater:

Will Enter the Pit

Will Not Enter the Pit

Tailwater Inflow to the Pit as Follows:

Percentage (%) of Q = _____ / 100 = _____

% of Pumpback (q) = _____ / 100 = _____



Location Map

Scale 1" = _____

Condition A - Intermittent Pumpback

Pumpback Time (Tp) = N x Ti = _____ x _____ = _____ hours

q = Ca Factor x Q = _____ x _____ = _____ gpm

Volume of Storage (Vs) = $\frac{q - (\% \times Q + \% \times q)}{450} \times Tp =$

$\frac{\text{_____} - (\text{_____} \times \text{_____} + \text{_____} \times \text{_____})}{450} \times \text{_____} =$

_____ acre-inches

Condition B - Continuous Pumpback

q = Cb Factor x Q = _____ x _____ = _____ gpm

Vs = $\frac{\% \times Q \times Ti}{450} = \frac{\text{_____} \times \text{_____} \times \text{_____}}{450} =$

_____ acre-inches

Estimated Excavation Volume (Ve) = 175 x Vs =
 175 x _____ = _____ cubic yards

See design procedure in National Engineering Handbook (NEH) Part 652, Irrigation Guide, KS652.07(b). Use equations for pit bottom length from Table KS7-4 or other methods.

Minimum Total Depth = 7 feet (per Conservation Practice Standard 447)

Design Dimensions

Width _____ feet Depth _____ feet

Length _____ feet

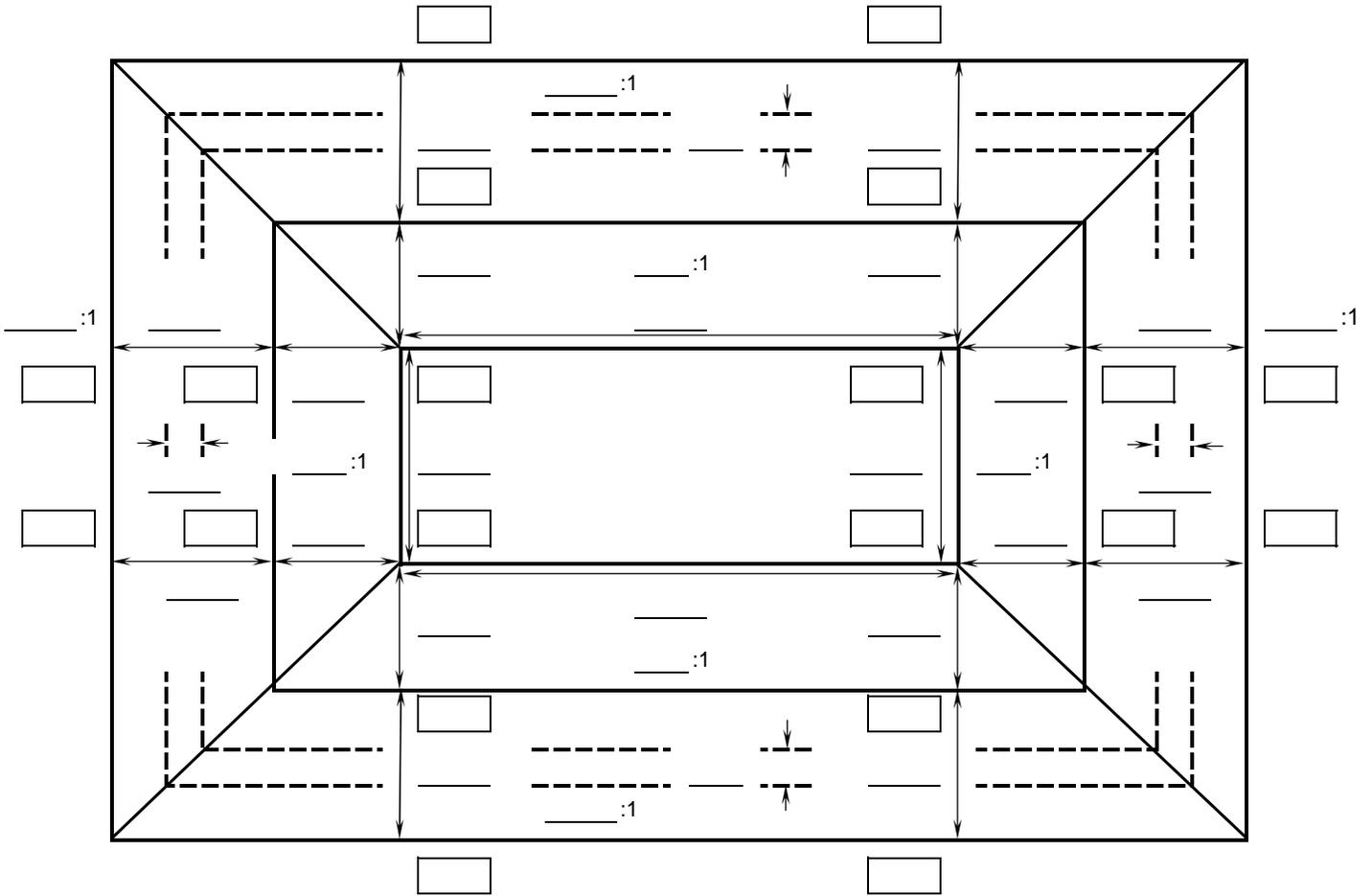
Slopes: End _____:1 Sides _____:1

End _____:1

Remarks _____

Name _____ Legal Desc. _____

Design Layout



	Backsight (BS)	Height of Instrument (HI)	Foresight (FS) or Grade Rod	Elevation or Planned Elevation
Bench Mark (BM)				
Top of Berm				
Auxiliary Spillway				
Inlet Flow-Line 1/				
Field				
Design Bottom				

BM Description _____
 Remarks _____

1/ Show inlet location on plan view above and the inlet details on a separate sheet or drawing

Excavation Volume Computations

Total of Top Lengths (L) _____ feet Total of Top Widths (W) _____ feet

Top Area = (Average Top L _____ feet) x (Average Top W _____ feet) = _____ sq ft

Bottom Area = (Average Bottom L _____ feet) x (Average Bottom W _____ feet) = _____ sq ft

4 x Median Area =
 (Avg. Top L + Avg. Bottom L _____ feet) x (Avg. Top W + Avg. Bot. W _____ feet) = _____ sq ft

Average Depth = _____ feet = Average of 4 Bottom Corner Cuts Sum of Areas = _____ sq ft

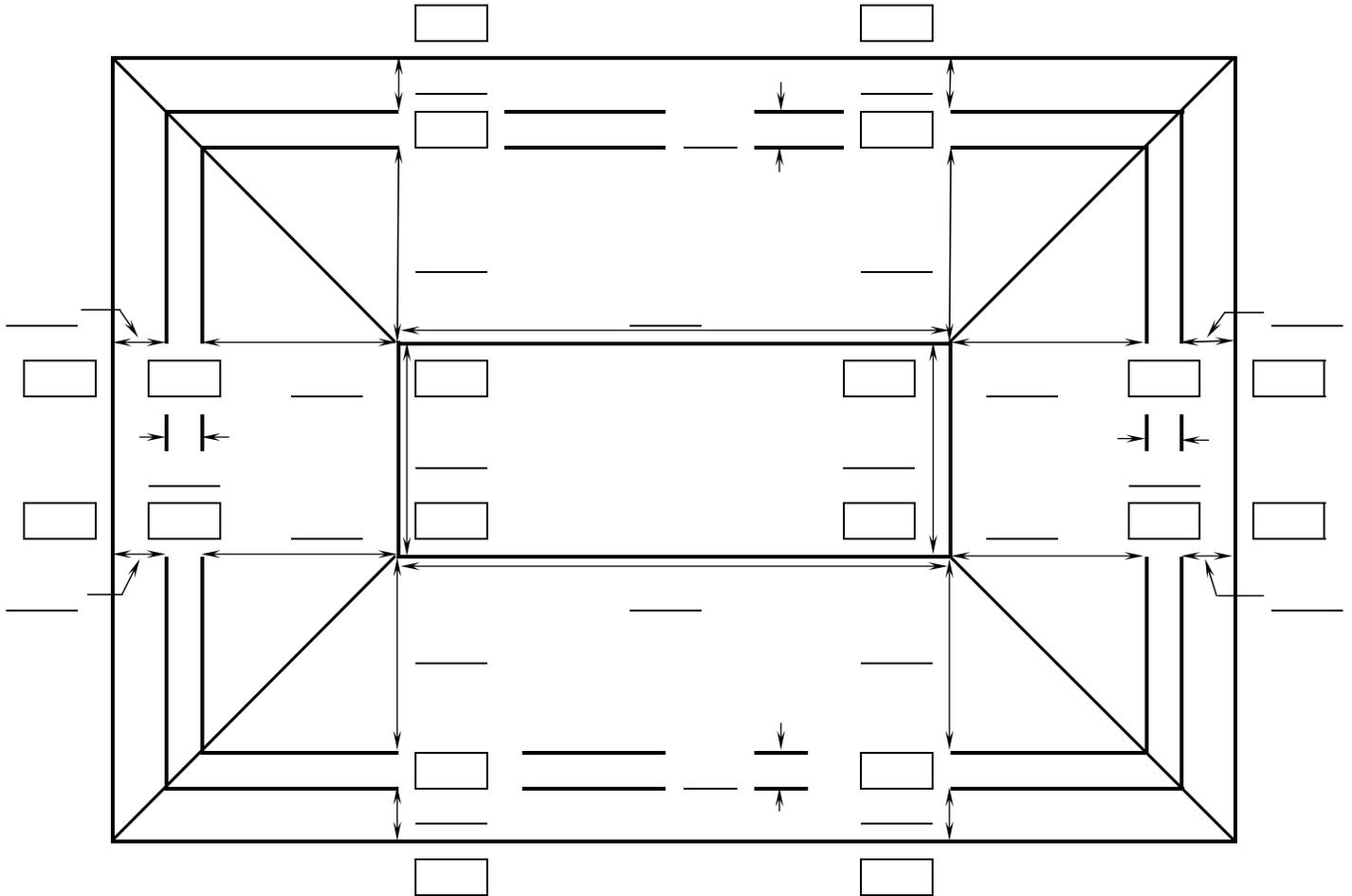
Excavation Volume = $\frac{\text{Average Depth} \times \text{Sum of Areas}}{162}$ = $\frac{\text{_____}}{162}$ = _____ **cubic yards**

Name _____ Legal Desc. _____

Checkout by _____ Date _____

Audited by _____ Date _____

Construction Checkout



	Backsight (BS)	Height of Instrument (HI)	Foresight (FS)	Elevation
Bench Mark (BM)				
Top of Berm				
Auxiliary Spillway				
Inlet Flow-Line 1/				
Field				
Bottom Check				

BM Description _____
 Remarks _____

1/ Show inlet location on plan view above