

**FOUNDATION LAYOUT
FOR
CMS-H SERIES GRAIN DRYERS**

The attached material shows the recommended foundation layout and various other details for installing the CMS-750H, CMS-1000H and CMS-1500H dryers. We suggest these same foundation plans be used for the smaller CMS-500H model, to allow for future expansion as the need for increased drying capacity arises.

NOTE: Dryers which are to be equipped with a heat reclaimer require 32" high pedestals. Refer to Bulletin FL-03-2 for foundation details concerning heat reclaimer equipped H-Series Dryers.

The foundation is described on drawings AD53-050 & AD53-051. These drawings contain important key information which will greatly assist your general contractor in planning and constructing the required type foundation. In addition to the layout, the drawings contain other valuable notes and information concerning various subjects, including design criteria, soil requirements and material required. MAKE SURE TO THOROUGHLY STUDY THESE DRAWINGS AND FOLLOW THE INFORMATION AND SPECIFICATIONS LISTED.

The foundation illustrated is designed to be constructed in two stages. The slab, as shown in drawing AD53-050 is the first pour. The slab has reinforcing and anchor loops left extended, as shown, for the triangular shaped pedestals which are formed and poured in the second stage; normally one or two days later. It is important to properly locate the pedestal reinforcing rods and anchor loops during the first pour so they will be correctly positioned within the form dimensions of the pedestals.

Two accessory kits are available for use in constructing the foundation. The accessory foundation pedestal package, kit no. CMS-PFP, contains the necessary parts for constructing the six 16" high pedestal forms. The six forms are of a special three-piece metal type construction and are designed to accept the wood type of positioning and cross members. The accessory anchor bolt package, kit no. CMS-ABP, contains the twelve 1" dia. X 15" long anchor bolts and nuts required (all models).

Drawing AD53-051 describes the 16" high pedestals and shows the anchor bolt layout. CARE SHOULD BE TAKEN IN THIS STAGE TO MAKE CERTAIN THE PEDESTALS ARE POSITIONED CORRECTLY AND THAT THE TOP SURFACES ARE FLAT AND LEVEL WITH EACH OTHER. The anchor bolts are positioned during the second stage as shown in the drawing.

The wood planks (2 X 6's and 2 X 8's) shown on Dwgs. AD52-049 and AD52-050 are used to accurately position and hold both the pedestal forms and anchor bolts.

In order to assure fast dryer erection and prevent concentrated loads within the structure, it is extremely important to maintain the pedestal and anchor bolt tolerances specified on the drawings. Before pouring the pedestals, make certain the forms are properly squared and shimmed to provide the exact pedestal height. Use a transit to provide a high degree of accuracy.

Although the standard pedestal height is shown at 16", this dimension could be changed if required. The height indicated is primarily to allow sufficient clearance under the dryer for cleanout and also to allow some vertical fall for the grain discharge.

FARM FANS, INC.
5900 ELMWOOD AVENUE • INDIANAPOLIS, INDIANA 46203

REQUIREMENTS TO POUR FOUNDATION

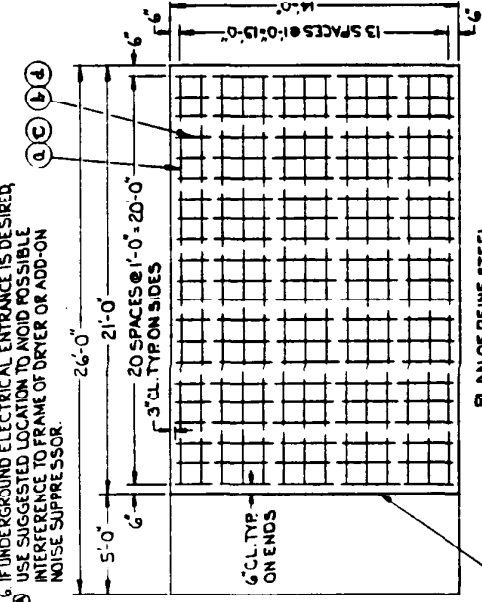
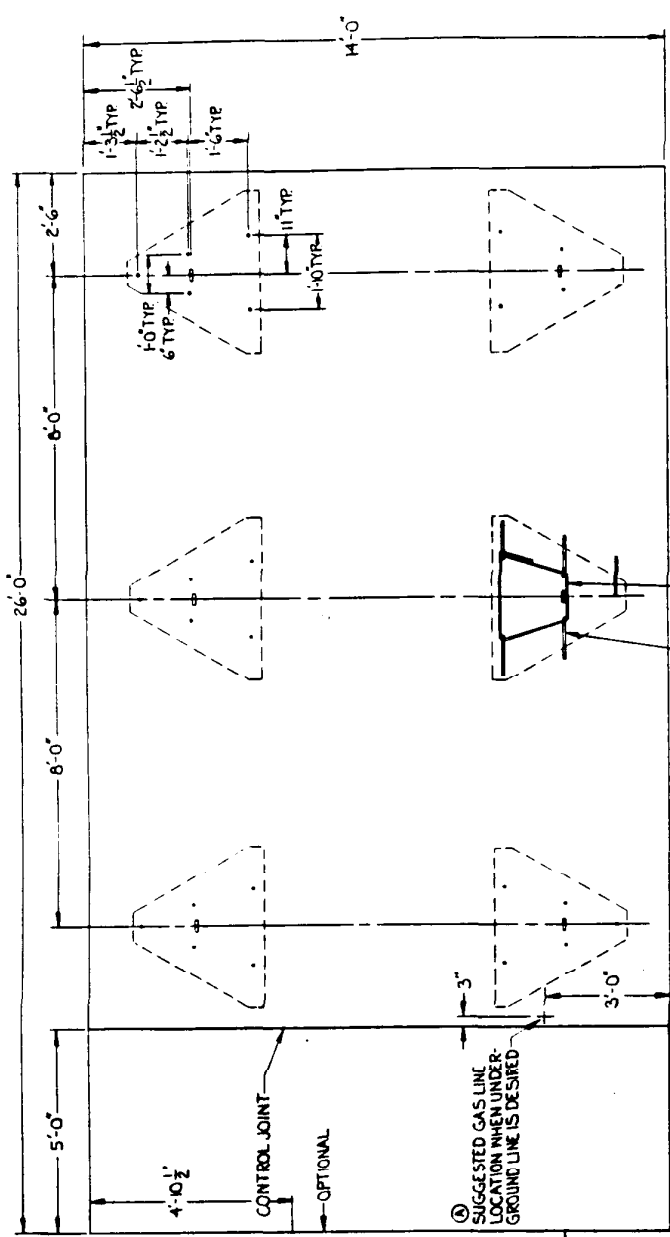
- (a) REINF BAR NO. 5 (1/2") X 20'-0" LG. (14) REQ'D - BOTTOM
- (b) REINF BAR NO. 5 (1/2") X 13'-6" LG. (21) REQ'D - BOTTOM
- (c) REINF BAR NO. 4 (1/2") X 20'-0" LG. (14) REQ'D - TOP
- (d) REINF BAR NO. 4 (1/2") X 13'-6" LG. (21) REQ'D - TOP
- (e) REINF BAR NO. 6 (1/2") X 2'-9" LG. (30) REQ'D
- (f) ANCHOR LOOP - REINF BAR NO. 3 (1/2") X 1'-4" LG. (6) REQ'D
- (g) PEDESTAL REINF BAR NO. 3 (1/2") X 7'-6" LG. (12) REQ'D

① SUGGESTED ELECTRICAL ENTRANCE LOCATION - SEE NOTE 6.

CONCRETE:

FOOTING	13.5 CYS
(6) PEDESTALS	2.4 CYS
TOTAL CONCRETE	15.9 CYS

- NOTES:**
- CONSULT SOILS ENGINEER IF BEARING CAPACITY OF SOIL IS LESS THAN DESIGN PRESSURE OR OTHERWISE QUESTIONABLE.
 - SOFT YIELDING FOUNDATION SOIL AND OTHER UNSUITABLE FOUNDATION MATERIALS SHOULD BE EXCAVATED TO FIRM SOIL AND BACKFILLED WITH GRANULAR MATERIAL.
 - SOILS HIGHLY SUSCEPTIBLE TO FROST HEAVE SHOULD BE EXCAVATED TO BELOW DEPTH OF FROST PENETRATION AND BACKFILLED WITH GRANULAR MATERIAL.
 - POORLY DRAINED LOCATIONS SHOULD BE PROVIDED WITH SUB-SURFACE TILE DRAINAGE WHERE POSSIBLE.
 - CONTROL JOINT MAY BE FORMED WITH 1/2" PLYWOOD STRIP MANUFACTURED PREFORMED JOINT FILLER, OR METAL STRIP.
 - IF UNDERGROUND ELECTRICAL ENTRANCE IS DESIRED, USE SUGGESTED LOCATION TO AVOID POSSIBLE INTERFERENCE TO FRAME OF DRYER OR ADD-ON NOISE SUPPRESSOR.



PLAN VIEW

1/2" DEEP CONTROL JOINT

ELEVATION

3" CL. 6" 1/2" R

DESIGN CRITERIA:

REINFORCED CONCRETE DESIGN BASED ON ACI BUILDING CODE REQUIREMENTS FOR REINF. CONCRETE 318-63
 $f_c = 1200 \text{ PSI}$
 $f_s = 20000 \text{ PSI}$
 MIN SOIL BEARING CAPACITY = 12000 PSF
 EQUIP D.L. = 24000# GRAIN L.L. = 96000#
 W.L. = 15 PSF BELOW 30 FT., 20 PSF ABOVE 30 FT.

DETAIL (A)

1'-0" 1/2"

DETAIL (B)

2'-0" 1'-6" 1'-2"

DETAIL (C)

3" CL. 6" 1/2" R

DETAIL (D)

2'-4" REF 1'-0"

Farm Fans, Inc.	
FOUNDATION LAYOUT	
TITLE	DATE: 11/17/68
SCALE	BY: COK
DATE: 11/17/68	APP: JEN
PROJECT NO. 15-10004	AD53-050

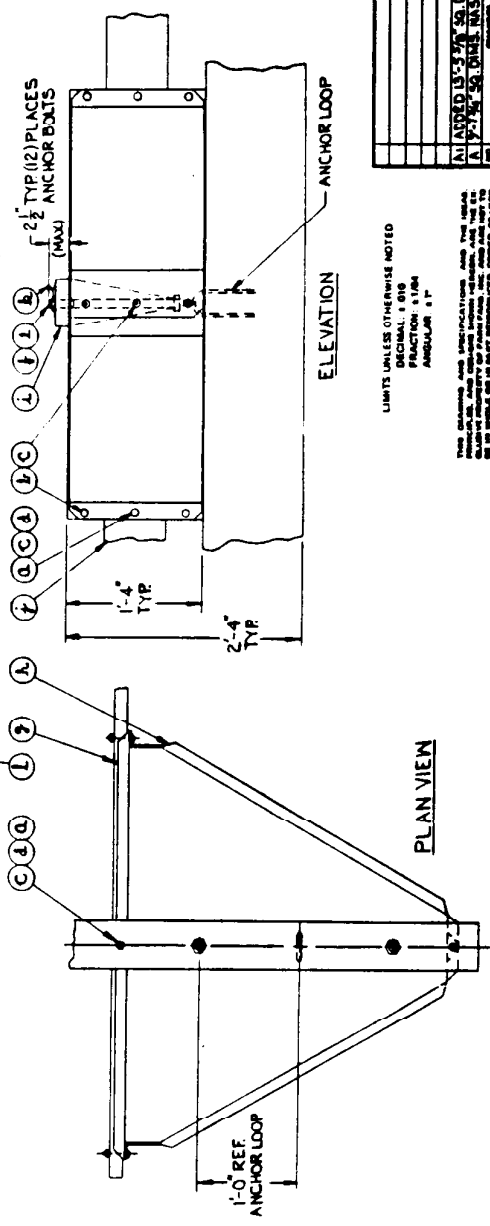
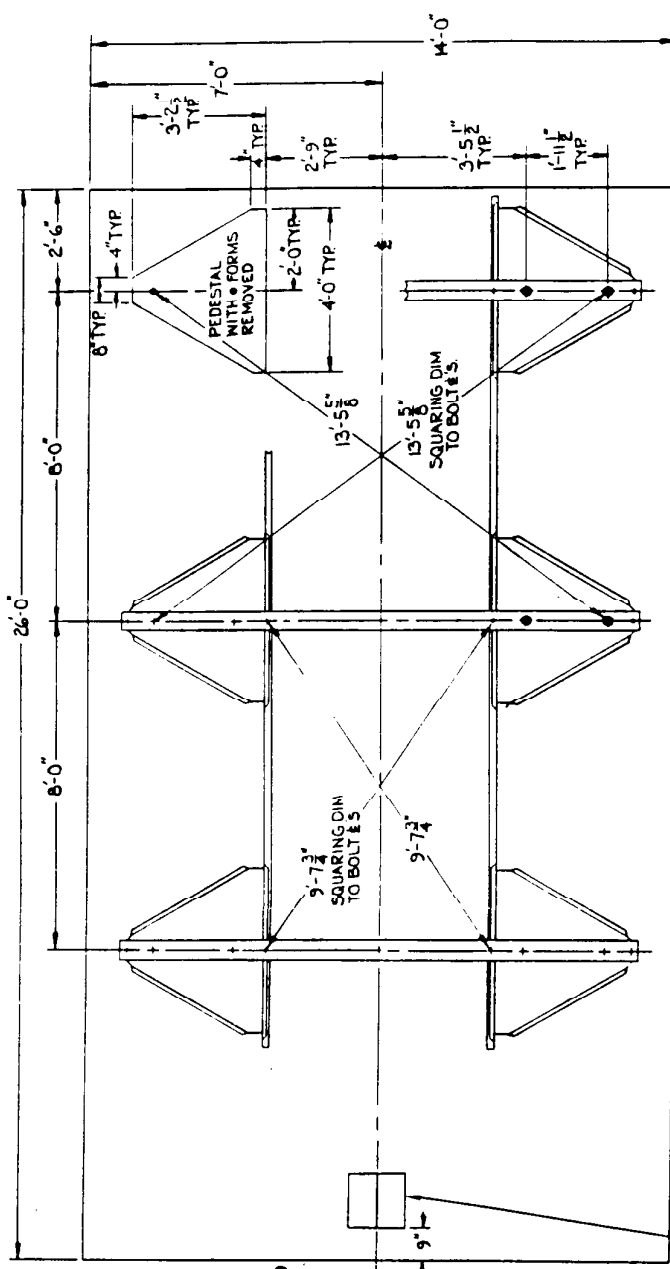
LIMITS UNLESS OTHERWISE NOTED
 DECIMAL: 1/8"
 ANGULAR: 1/4"

PLAN OF REINF STEEL

CONTROL JT.

REQUIREMENTS TO FOUR PEDESTALS

- (A) 2-18 X 2 1/2 LG. CARRAGE BOLT (24) REQ'D.
 - (B) 2-18 X 1/4 LG. CARRAGE BOLT (42) REQ'D.
 - (C) 2-1/2-18 HEX. NUT (46) REQ'D.
 - (D) 2-1/2 FLAT WASHER (24) REQ'D.
 - (E) 1'-8 X 15' LG ANCHOR BOLT (2) REQ'D.
 - (F) 1'-8 HEX. NUT (2) REQ'D.
 - (G) INNER FORM (6) REQ'D. PART NO. A25-879
DWG. NO. AD72-514
 - (H) OUTER FORM (12) REQ'D. PART NO. A25-880
DWG. NO. AD72-515
 - (I) * CROSS TIE MEMBER (3) REQ'D. DWG. NO. AD52-049
 - (J) * FORM POSITIONING MEMBER (2) REQ'D.
DWG. NO. AD52-050
 - (K) STEEL WIRE NO. 9 X 4' LG. APPROX (6) REQ'D.
 - (L) CONCRETE BLOCK 8" X 16" (SOLID TOP) (4) REQ'D.
- * DWG. TO BE FURNISHED BY FARM FANS, INC.
& MATERIAL TO BE ACQUIRED LOCALLY.



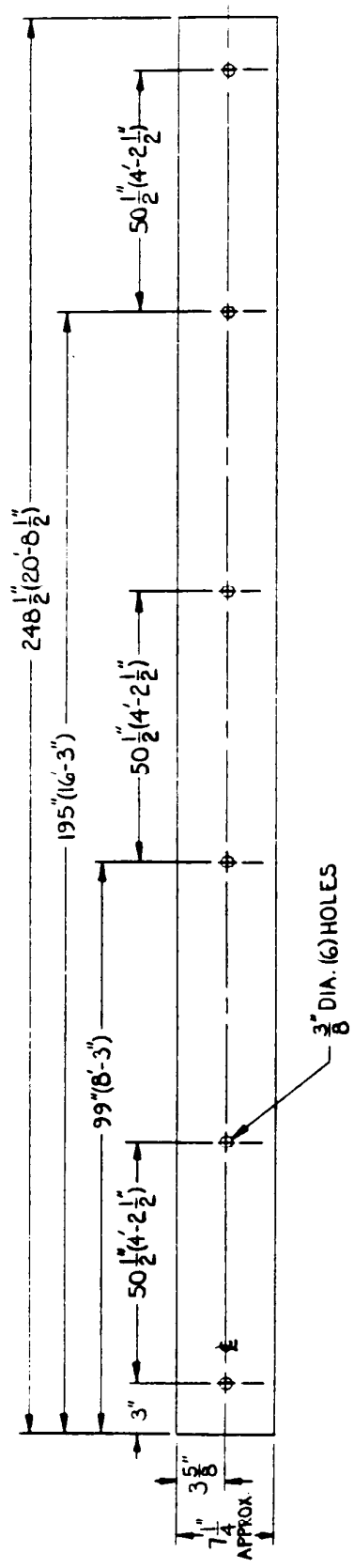
- NOTES:**
1. ANCHOR LOOP MUST BE CAST IN PLACE WHEN PADS IS POURED (TYP & PLACES).
 2. THREAD NO. 9 WIRE THROUGH ANCHOR LOOP & AROUND FORM CROSS TIE MEMBER & SECURE LOOSELY. POSITION LEVEL (CHECK WITH TRANSIT) & SQUARE (SEE SQ DWG ABOVE). FORM MASSY, THEN INSERT A SHORT ROD BETWEEN WIRES & TWIST UNTIL FORM ASSY IS DRAWN FIRMLY AGAINST PAD. CAUTION! DO NOT DEFORM CROSS TIE MEMBER.
 3. INSTALL ANCHOR BOLTS (12 REQ'D) IN 1" DIA HOLES IN CROSS TIES & SECURE.
- ALLOWABLE TOLERANCES:
 SQUARENESS: ± 1/8" IN 10'
 PEDESTAL HEIGHT: ± 1/4" TOTAL FROM TRUE LEVEL
 ANCHOR BOLT SPACING: ± 1/4" NOT ACCUMULATIVE

FORM NO. 100 SEE DWG. 1

farm fans, Inc. FARM FANS, INC. 1000 W. 10TH ST. W. WYOMING, WY.	
TITLE: PEDESTAL LAYOUT	
DATE: 10/15/50	SCALE: 1/4" = 1'-0"
DESIGNED BY: C. N. 9-250	CHECKED BY: C. N. 9-250
DRAWN BY: C. N. 9-250	DATE: 10/15/50
BY: C. N. 9-250	DATE: 10/15/50
FILE NO.:	AD53-051

LIMITS UNLESS OTHERWISE NOTED
 DECIMAL: 1/16"
 FRACTION: 1/8"
 ANGULAR: 1/4"

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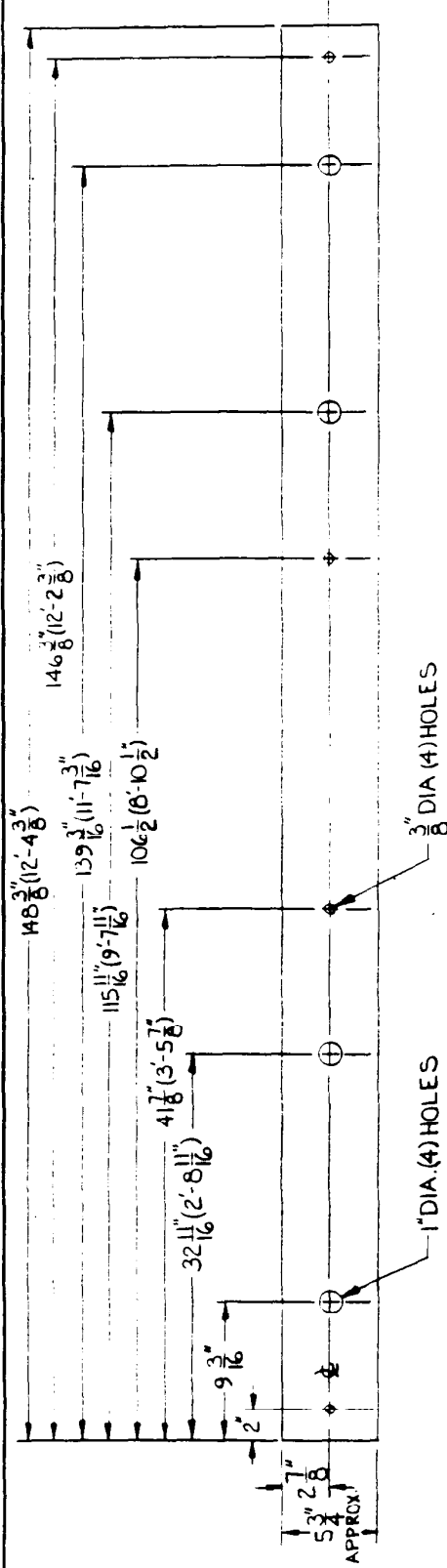


ALLOWABLE DIMENSIONAL TOLERANCE $\pm \frac{1}{32}$
 (2) REQ'D. PER SET

- NOTE:
- 1.* SELECT STRAIGHT MATERIAL.
 2. USE CHALK LINE TO ESTABLISH TRUE STRAIGHT LINE FOR DRILLING HOLES.

CMS-H

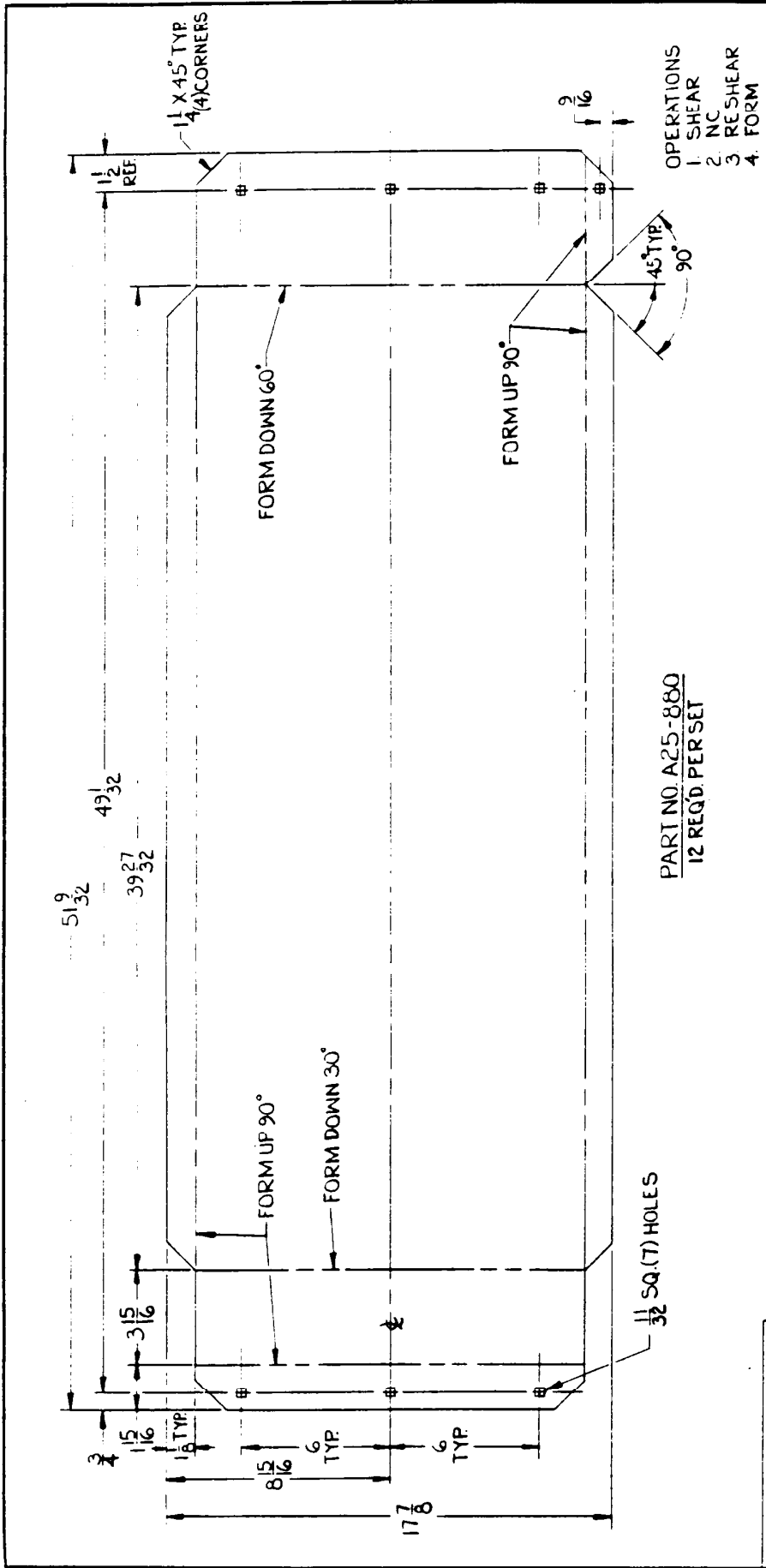
LIMITS UNLESS OTHERWISE NOTED		FOR ASBY. SEE DWG. #	
FRACTIONALS	DECIMALS	ANGULARS	
Farm Fans, Inc. 3500 ELMHURD AVENUE, BEACH GROVE, INDIANA			
TITLE: DIMENSIONAL DRAWING FOR PEDESTAL FORM POSITIONING MEMBER			
MATERIAL: DRESSED 2X8 LUMBER (SEE NOTE #)			
SCALE	DES. BY	DATE	DRAWING NO.
NONE	COX		AD52-050
CHEG. BY	APP. BY	DATE	
		2-6-76	
SUPERSEDES		AND ALL PREVIOUS	
DRAWING NO.	DATED	DRAWING NO.	DATED



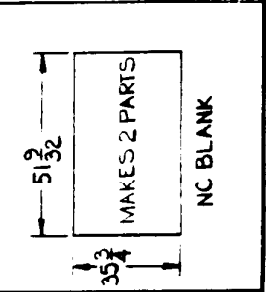
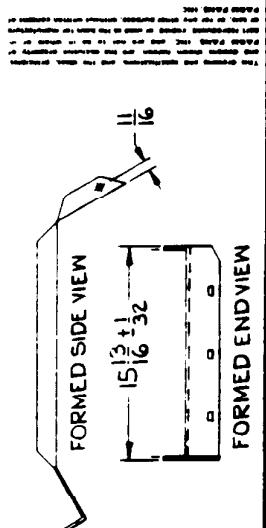
ALLOWABLE DIMENSIONAL TOLERANCE $\pm \frac{1}{32}$
 (3) REQD. PER SET

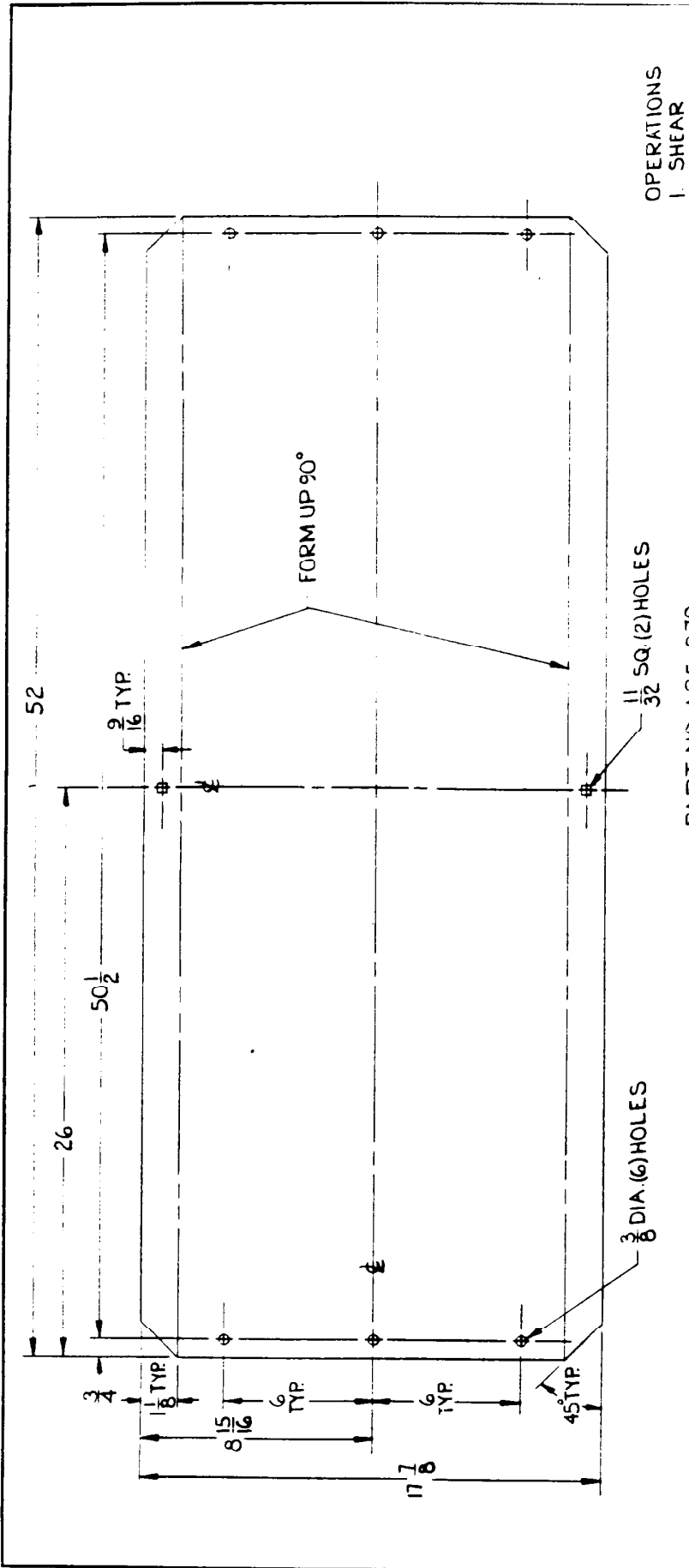
- NOTE:
1. * SELECT STRAIGHT MATERIAL.
 2. USE CHALK LINE TO ESTABLISH TRUE STRAIGHT LINE FOR DRILLING HOLES.

LIMITS UNLESS OTHERWISE NOTED		FOR ASS'Y. SEE DWG. #	
FRACTIONAL	DECIMAL	ANGULAR	
Farm Fans, Inc. 3900 ELMHURST AVENUE BEECH GROVE, INDIANA			
TITLE DIMENSIONAL DRAWING FOR PEDESTAL FORM CROSS-TIE MEMBER			
MATERIAL DRESSED 2X6 LUMBER (SEE NOTE #)			
SCALE NONE	DWG. NO. 60X	DRAWING NO. AD52-049	
CHG. BY	DATE	CHG. BY	DATE
SUPERSEDES DRAWING NO. _____ DATED _____		AND ALL PREVIOUS DATED PRINTS	



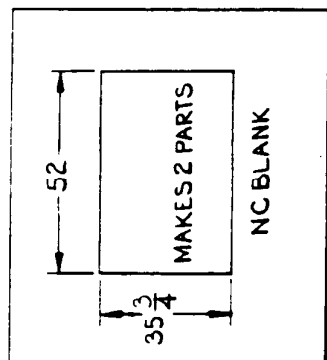
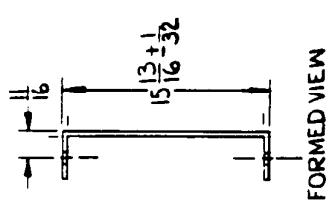
LIMITS UNLESS OTHERWISE NOTED		FOR ASS'Y SEE DWG #	
FRACTIONAL	$\frac{1}{64}$	DECIMALS	.010
ANGULAR	.010		
<p>Farm Fans, Inc. 1900 ELMWOOD AVENUE SEECHROVE, INDIANA</p>			
TITLE		DRAWING NO.	
PEDESTAL OUTER FORM		AD72-515	
MATERIAL 12 GA. GALV. STL.			
SCALE	DWG BY	DATE	
	COX	2-6-76	
NO	CHG. BY	DATE	AND ALL PREVIOUS DATED PRINTS
SUPERSEDES DRAWING NO. DATED			





PART NO A25-879
6 REQ'D PER SET

- OPERATIONS
 1. SHEAR
 2. NC
 3. RESHEAR
 4. FORM



LIMITS UNLESS OTHERWISE NOTED		FOR ASSY. SEE DWG #	
FRACTIONAL	1/64	DECIMALS	.010
ANGULAR	10		
Farm Fans, Inc. 3300 ELMWOOD AVENUE, BELOCH, INDIANA			
TITLE: PEDESTAL INNER FORM			
MATERIAL: 12 GA. GALV. STL			
NO.	CHG. BY	DATE	DWG. BY
			COX
SUPERSEDES		DATE	DRAWING NO.
DRAWING NO.		2-5-76	AD72-514



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