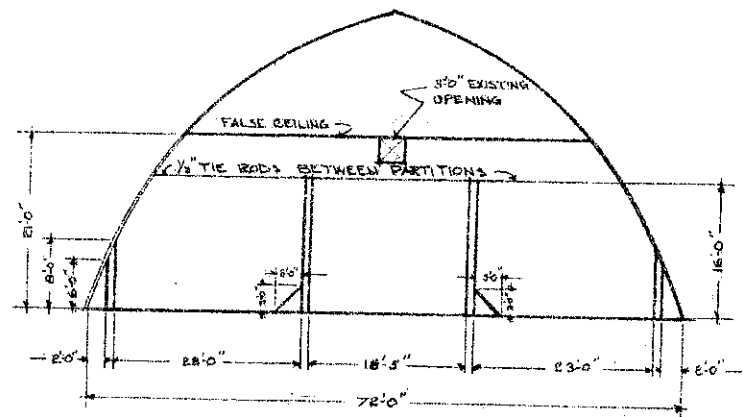
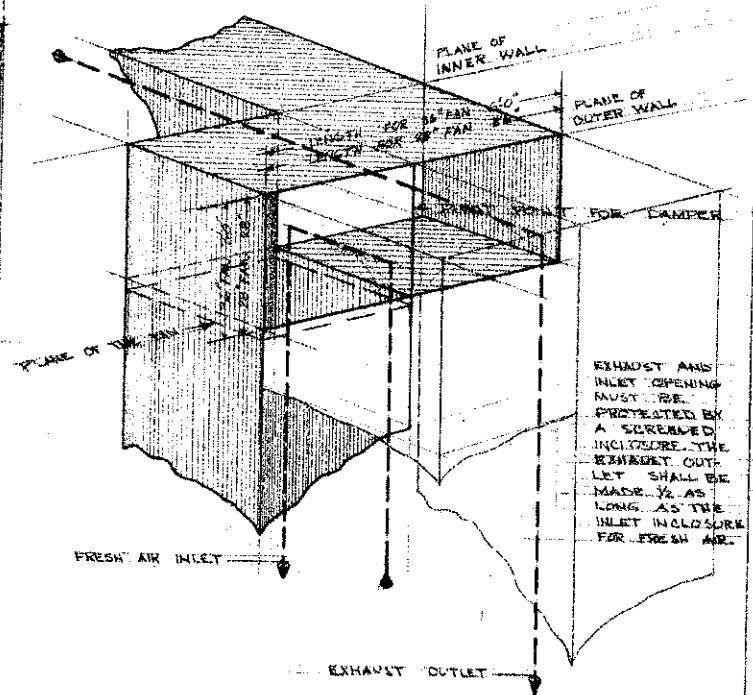


FLOOR PLAN
SCALE 1/8" = 1'-0"



SECTION
SCALE 1/8" = 1'-0"



VENTILATION SCHEME
SCALE: NONE

RECOMMENDATIONS

1. CAPACITY OF STORAGE 36,000 CWT AT 1.42 CWT. PER FT.³, 16" DEEP
2. 2 FANS AT 18,000 CFM EACH AT 10CM PER CWT MUST DELIVER AT 1/2" STATIC PRESSURE.
3. REMOVE FANS AND SEAL UP EXISTING EXHAUST OPENING.
4. IF MIXER FANS ARE AVAILABLE PLACE OVERHEAD OF BIN FRONTS WITH OUTLET TOWARDS PLENUM END.
5. SEAL PLENUM CHAMBER FROM BINS.
6. THE BINS ARE SO WIDE YOU MAY CONSIDER A CENTER DUCT IN EACH BIN. CONSIDER THE HARVEST CONDITIONS. (POTATOES 1 SEASON)
7. INLET TO FAN SHROUD SHOULD NOT BE SMALLER THAN FAN DIAMETER.
8. MANUALLY OPERATED DAMPERS IN VENTILATING SYSTEM SUGGESTED.
9. ARRANGE FOR AIR TO FLOW INTO CENTER BINS FROM DUCT CONSTRUCTED IN ADJOINING BINS.

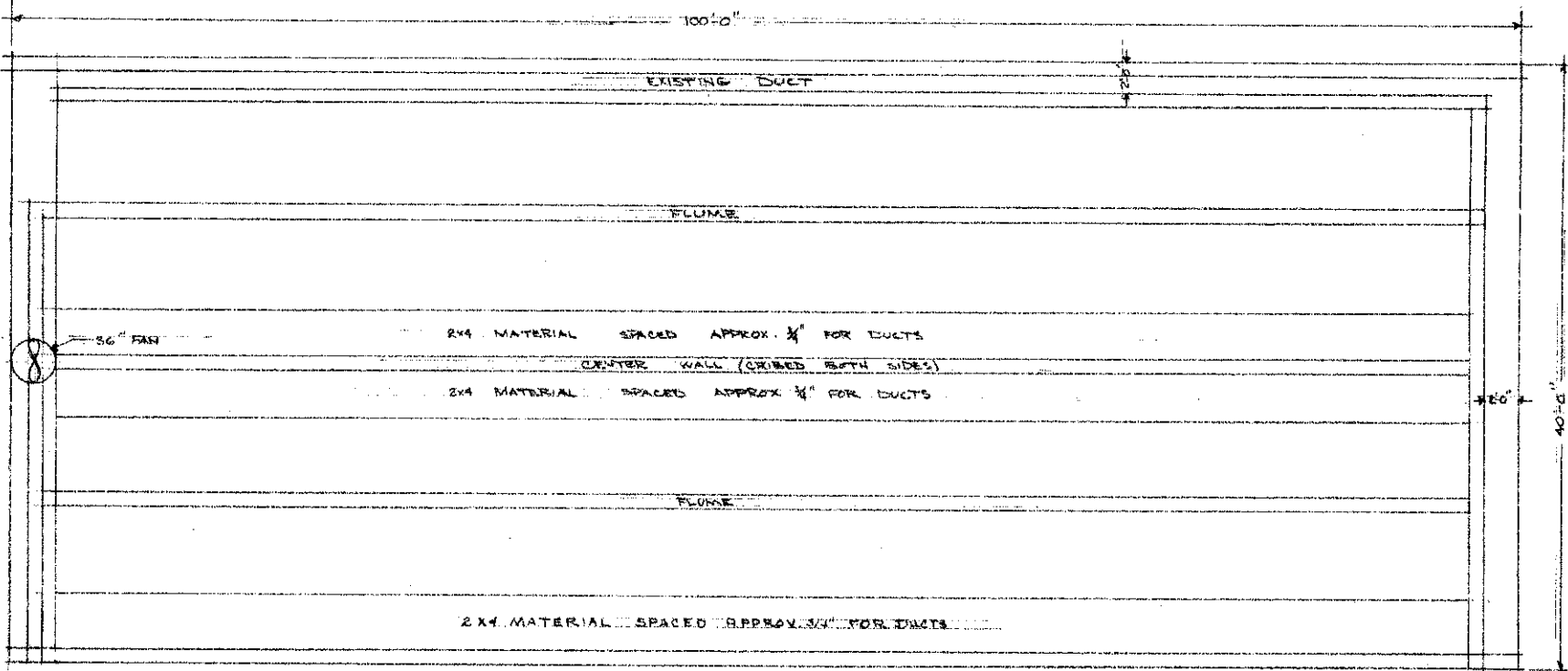
POTATO STORAGE, 72x120
& BUS, CENTER ALLEY

MSU EXT. AGRIC. ENGINEERING
1974

N.D. 734-6-6 1 of 3

MSU - EXTENSION SERVICE

FOR POTATO STORAGE LAYOUT

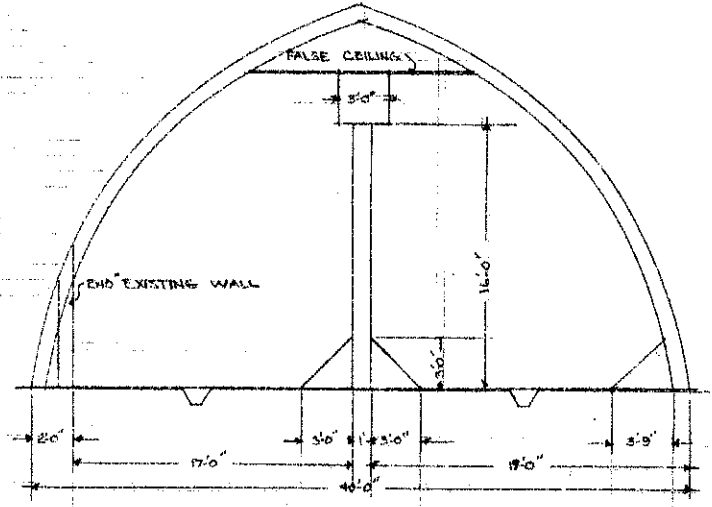


FLOOR PLAN

SCALE: 3/8" = 1'-0"

RECOMMENDATIONS

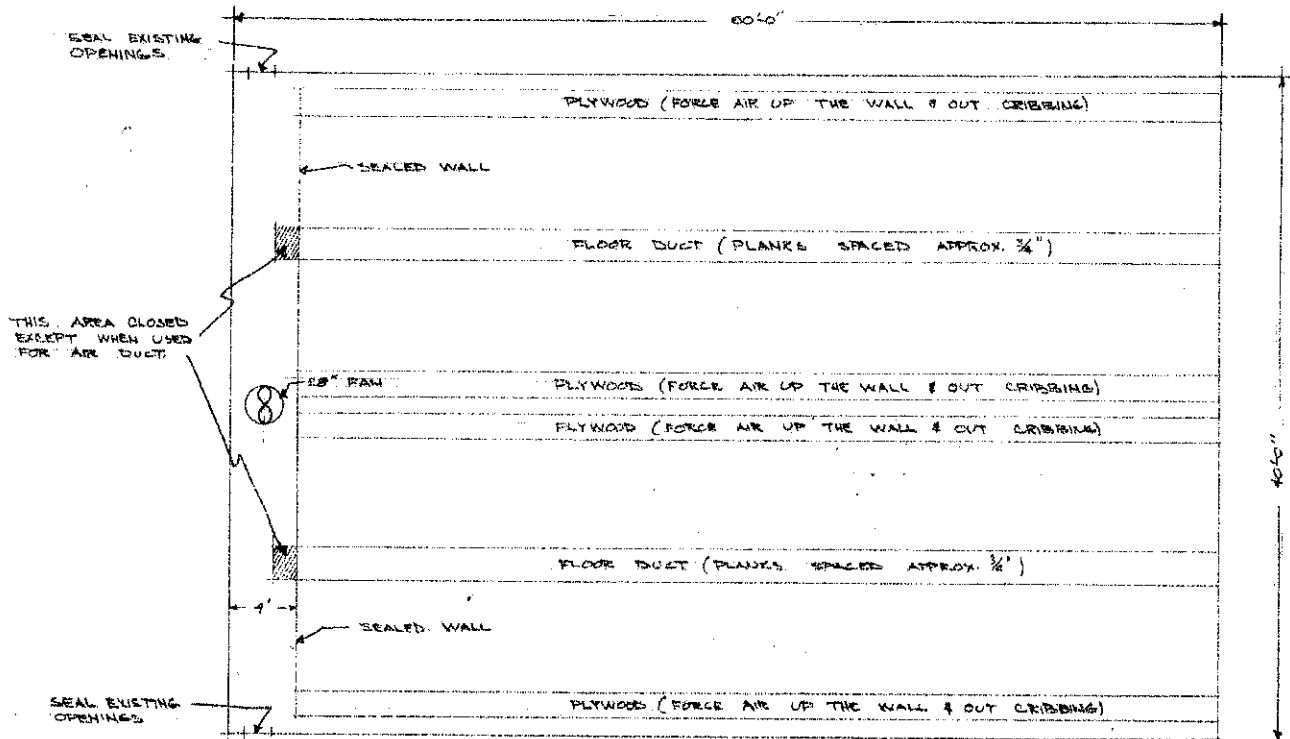
1. COMPUTED CAP. AT 16'-0" DEPTH & 12 CWT/FT³ CAPACITY OF BUILDING 18,000 CWT.
2. FAN CAPACITY 18,000 CFM. BASED ON 1 CEN. PER CWT. MUST DELIVER AT 1/2" STATIC PRESSURE.
3. LEAVE EXISTING EXHAUST FANS IN PLACE FOR USE AS DESIRED, NOT REQUIRED IN SYSTEM.
4. PLACE MIXER FAN APPROXIMATELY 80FT FROM REAR OF BUILDING.
5. SEAL PLENUM CHAMBER FROM BINS. PERMANENT WALL AT TOP MAYBE HELPFUL.
6. INLET DUCT AREA SHOULD NOT BE SMALLER THAN SHROUD AREA OF FAN.
7. SPACED DUCT USING 2x4 MATERIAL.
8. RECOMMEND CLOSING TOP OF CENTER WALL FOR CHIPPING POTATOES OR SHEATHING AND CLOSING FORCING AIR THROUGH DUCT SPACING.



SECTION

SCALE: 3/8" = 1'-0"

POTATO STORAGE, 72x112
 6 BINS, CENTER ALLEY
 NDSU EXT. AGRIC. ENG'G
 1974
 ND 734-6-6 3/11/74

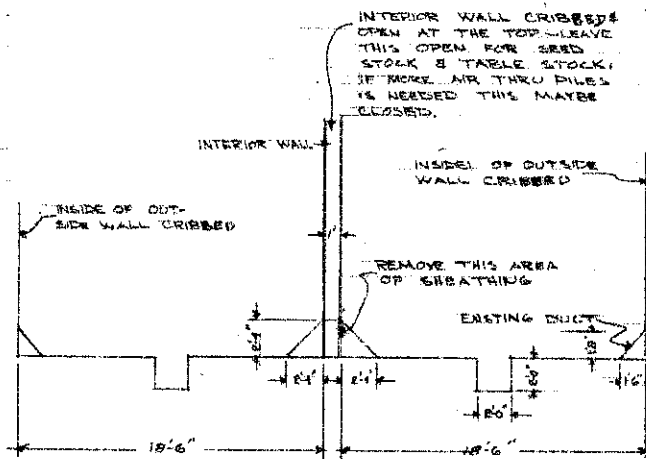


FLOOR PLAN

SCALE 1/8" = 1'-0"

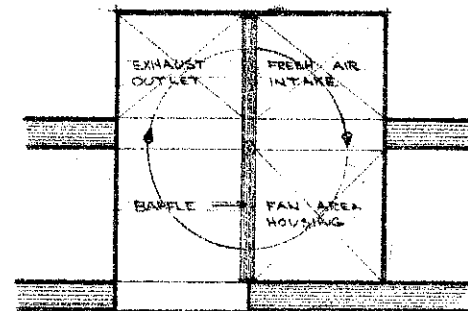
RECOMMENDATION

1. COMPUTED CAPACITY AT 12' DEPTH 4.42 CWT/FT³. CAPACITY OF BUILDING 8200 CWT. 44' BIN LENGTH
2. FAN CAP. 2200 CFM. (BASED ON 1 CFM PER CWT.)
3. BASE FAN ON 1/2" STATIC PRESSURE.
4. NO NEED FOR MIXER FAN.
5. WORK AREA OR ALLEY SHOULD BE SEALED FROM BINS.
6. INLET DUCT TO FAN SHOULD NOT BE SMALLER THAN FAN SHROUD.
7. AUTOMATIC CONTROL NOT REALLY NECESSARY.
8. REMOVE CRIBS IN DUCTS LETTING PLYWOOD FORCE AIR & TAKE PRESSURE FROM POTATOES.
9. COULD USE THE CRIBS YOU REMOVE IN PLACE OF PLYWOOD (NO SPACING) ON DUCTS.
10. MAY HAVE TO CLOSE FRONT TOP OF INTERIOR WALL MAKING MORE UNIFORM AIR FLOW THROUGH CENTER DUCTS.
11. THE TOP OF NEW CENTER DUCT MAYBE LEFT OPEN (1") ALLOWING AIR TO SWEEP ALONG FLOOR.

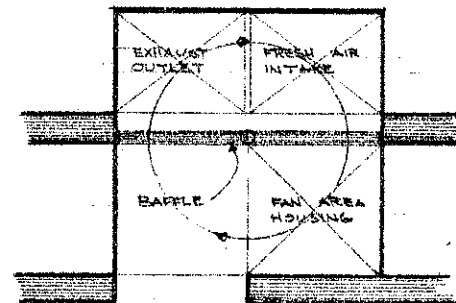


SECTION

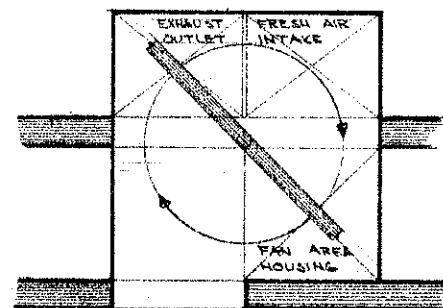
SCALE 1/8" = 1'-0"



ALL FRESH AIR



ALL RETURN AIR



MIXED AIR

POTATO STORAGE, 723/10
8 BINS, CROSS-ALLEY
NDSU EXT. AGRIC. ENGINEER

N.D. 734-6-6 1974

NDSU - EXTENSION SERVICE
PROCESSED POTATO STORAGE LAYOUT FOR