MO-FLEX FARROWING BUILDING PLAN
PREPARED FOR: MISSOURI PLAN SERVICE
PLAN NUMBER: MO3-726-94C1

DEVELOPED BY:
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TITLE SHEET
FARROWING ROOM FLOOR PLAN OPTIONS
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FLUSH BUILDING CROSS SECTION
FLUSH GUTTER CONCRETE CROSS SECTION
MO SIPHON FLUSH TANK DETAIL
TANK AND SUMP LONGITUDINAL SECTION (PART 1)
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HAIRPIN GUTTER BUILDING CROSS SECTION
HAIRPIN GUTTER CONCRETE CROSS SECTION
POST FRAME STRUCTURAL DETAILS
POST FRAME STEEL BRACKET

WARRANTY DISCLAIMER:
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ADDITIONAL PROFESSIONAL SERVICES WILL BE REQUIRED TO FABRICATE THE PLAN TO YOUR SPECIFICATION, INCLUDING BUT NOT LIMITED TO:
- ASSESSMENT OF COMPLIANCE WITH LOCAL CODES AND REGULATIONS
- DEVELOPMENT AND/OR REVIEW OF SPECIFICATIONS FOR MATERIALS AND EQUIPMENT
- SELECTION OF PROVIDERS FOR PROVIDING APPROPRIATE MATERIALS
- DESIGN OF SITE PREPARATION, SECTIONS, AND CONSTRUCTION
- DEVELOPMENT OF A MANURE STORAGE SYSTEM AND MANURE MANAGEMENT PLAN
- PREPARATION FOR UTILITIES, BASES, AND/OR OTHER ACCESS.
MO–FLEX FARRROWING BUILDING
FLUSH SYSTEM USING MO SIPHON TANKS

SITE SELECTION AND PREPARATION INFORMATION

1. Soil building pad should be about 12"–0" to 20"–0" longer and 10"–0" wider than building.
2. Soil building pad should slope 2% from tank end to basin end for good flushing performance.
3. No slope across width of soil building pad should exist.
4. Building proximity to other swine buildings impacts pig performance and should be considered.

VENTILATION
1. See Dwg. 2 for layout recommendation of ventilation system.
2. See manual for ventilation system performance recommendations using flush system.

LIVESTOCK EQUIPMENT
2 = 12 CRATE FARRROWING ROOMS
2 = 15 CRATE FARRROWING ROOMS

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FLOOR PLAN USING FLUSH AND MO SIPHON TANKS

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AGRICULTURAL ENGINEERING DEPARTMENT–UNIVERSITY OF MISSOURI–COLOMBIA
UNIVERSITY EXTENSION – COMMERCIAL AGRICULTURE PROGRAM
UNITED STATES DEPARTMENT OF AGRICULTURE

DRAWN: AMZ
CHECKED: TDD/PLM
DRAWN BY: AMZ
DATE: 9/94
SCALE: 1" = 10'–0"

1" = 10'–0"
STEEL DETAILS AROUND PIPING

SIPHON FLUSH TANK SECTION
(CONCRETE DETAILS)

TANK BELL CONSTRUCTION DETAILS

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TANK AND SUMP LONGITUDINAL SECTION (PART 2)

MO-FLEX FARROWING BUILDING PLAN

Cooperative Extension Service
Agricultural Engineering Department - University of Missouri-Columbia
University Extension - Commercial Agriculture Program
United States Department of Agriculture Cooperative

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REvised IN: AMZ

PLAN NO: M03-726-94C1
DATE: 6/94

AS SHOWN
PG : 8 OF 20
MO SIPHON FLUSH TANK SECTION
(SIPHON DETAILS)

<table>
<thead>
<tr>
<th>CUTTER LENGTH</th>
<th>TANK LENGTH D1</th>
<th>DIST. FROM FOOTER TO SUMP D2</th>
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<tbody>
<tr>
<td>UP TO 180'</td>
<td>4'-0&quot;</td>
<td>14&quot;</td>
</tr>
<tr>
<td>181'-200'</td>
<td>5'-0&quot;</td>
<td>26&quot;</td>
</tr>
<tr>
<td>201'-240'</td>
<td>6'-0&quot;</td>
<td>38&quot;</td>
</tr>
<tr>
<td>241'-280'</td>
<td>7'-0&quot;</td>
<td>50&quot;</td>
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NOTE: COTTER LENGTH IS THE DISTANCE FROM THE FRONT OF THE TANK TO THE FAR END WALL.
GENERAL NOTES

SEWER INFORMATION:
1. SEWER LINE SLOPE - 3\%.
2. SEWER LINE CAN BE LOCATED ANYWHERE IN CATCH BASIN TO SIMPLIFY RETURN TO LAGOON.

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<tr>
<th>SEWER LINE</th>
<th>GUTTER LENGTH</th>
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<tr>
<td>8%</td>
<td>UP TO 200'</td>
</tr>
<tr>
<td>10%</td>
<td>201' TO 240'</td>
</tr>
<tr>
<td>12%</td>
<td>241' TO 280'</td>
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CATCH BASIN:
1. SLOPE: BASIN FLOOR TO SEWER LINE A MINIMUM OF 1/8’/FT.
2. MAXIMUM BASIN DEPTH IS 24".

CATCH BASIN DETAIL

NOTE: ALLEY CONCRETE FLOORS AND LIVESTOCK EQUIPMENT ARE NOT SHOWN TO ALLOW FLUSH GUTTER CONCRETE DETAILS TO BE SHOWN.

SCALE: 1/4" = 1'-0"
CATCH BASIN CROSS SECTION

- 2 - #4 REBARS IN BOTTOM AND TOP OF BEAM (4 TOTAL)
- CRATE FLOORING AND SUPPORTS
- ORIGINAL GRADE LINE
- 2" GRAVEL LAYER RECOMMENDED (3/4" TO 1" MAXIMUM)
  #4 REBAR 18" O.C.
- #4 REBAR 12" O.C.
- INSERT 1" WEEP HOLES TO ALLOW ANY WATER TO DRAIN FROM GRAVEL INTO BASIN
  PLACE WEEP HOLES 5'-0" O.C. ALONG LENGTH OF CATCH BASIN.

SCALE: 1" = 1'-0"
SITE SELECTION AND PREPARATION INFORMATION

1. Soil building pad should be about 10'-0" to 20'-0" longer and 10'-0" wider than building.
2. No slope across width or length of soil building pad should exist.
3. Building proximity to other swine buildings impacts pig performance and should be considered.

VENTILATION

1. See DWG. 2 for layout recommendation of ventilation system.
2. See manual for ventilation system performance recommendations using pit recharge system.

LIVESTOCK EQUIPMENT

2 - 12 crate farrowing rooms
2 - 15 crate farrowing rooms

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PICT RECHARGE BUILDING

ATTIC VENTILATION/OPENINGS PROVIDED THROUGH RIDGE AND POSSIBLY GABLE AREAS.

TRUSSES, 4'-0" O.C.
SEE MANUAL FOR COMPLETE TRUSS SPECIFICATION.

METAL ROOFING

2" x 4" PURLINS, 2'-0" O.C.

CEILING

6 MIL PLASTIC VAPOR RETARDER ABOVE CEILING

10' OF LOOSE FILL INSULATION (R-30)
(PIF BAGGIES AROUND DUCT)

OPENING IN HALLWAY CEILING FOR VENTILATION DUCT

EXHAUST FANS (TYP.)
SEE MANUAL FOR DETAILS.

FARROWING CAGE (TYP.)

FELDER (TYP.)

WINTER CEILING INLETS (TYP.)

SUMMER INLET SYSTEM (TYP.)

STUD WALL WITH METAL SIDING ON BOTH SIDES

COMMON HALLWAY

METAL SIDING

WALL INSULATION (R-19)

VAPOR RETARDER

SEE PIT RECHARGE CONCRETE CROSS SECTION (DWG. P3) FOR CONCRETE AND FOUNDATION DETAILS

SEE PIT RECHARGE CONCRETE CROSS SECTION (DWG. P3) FOR PIT DETAILS

PIT RECHARGE BUILDING CROSS SECTION

SCALE: 1/4" = 1'-0"

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PIT RECHARGE BUILDING CROSS SECTION

MO-FLEX FARROWING BUILDING PLAN

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UNIVERSITY EXTENSION - COMMERCIAL AGRICULTURE PROGRAM
UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING
PIT RECHARGE CONCRETE CROSS SECTION

SIDEWALL AND RECHARGE PIT DETAILS
MO-FLEX FARROWING BUILDING
HAIRPIN GUTTER MANURE SYSTEM

SITE SELECTION AND PREPARATION INFORMATION

1. SOIL BUILDING PAD SHOULD BE ABOUT 10'-0" TO 20'-0" LONGER AND 10'-0" WIDER THAN BUILDING.
2. NO SLOPE ACROSS WIDTH OR LENGTH OF SOIL BUILDING PAD SHOULD EXIST.
3. BUILDING PROXIMITY TO OTHER SWINE BUILDINGS IMPACTS PIG PERFORMANCE AND SHOULD BE CONSIDERED.

FLOOR PLAN USING HAIRPIN GUTTER LIQUID MANURE SYSTEM

- 2 - 12 CRATE FARROWING ROOMS
- 2 - 15 CRATE FARROWING ROOMS

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HAIRPIN GUTTER CONCRETE CROSS SECTION

SCALE: 1/4" = 1'-0"

SIDEWALL AND HAIRPIN GUTTER DETAILS

SCALE: 1/2" = 1'-0"

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GENERAL NOTES
1. BOTTOM STEEL PLATE - 1/4" x 7" FLAT PLATE A36 STEEL
2. VERTICAL STEEL PIECE - 1/4" x 4" FLAT PLATE A36 STEEL
3. 1/4" FилLET WELDS USING E 60 XX ELECTRODES

POST FRAME STEEL BRACKET
MO-FLEX FARROWING BUILDING PLAN

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CHECKED BY: J.M.
REVISED BY: J.M.

DATE: 9/94
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