LENGTH WILL VARY WITH STORAGE REQUIRED (SEE TABLE)

PLAN

NOTES:
1. EXCAVATE TO GOOD BOREH, 2.5 FT. BELOW GRADE TO PROVIDE FILL FOR BERM.
2. SPREAD & COMPACT FILL IN 6 INCH LAYERS.
3. PROVIDE DRAINAGE COMPLETELY AROUND WALLS.
4. ALL LUMBER IN CONTACT WITH MANURE OR SOIL SHOULD BE PRESSURE PRESERVATIVE TREATED (PRT).
5. ADD TEMPORARY INTERIOR BRACING WHEN BACK-FILLING BERM AND PLACING CONC. BERM SLAB.
6. IF ROOF OPTION IS OMITTED ADD 4 CORNER PICKET DAMS & PROVIDE FOR LIQUID REMOVAL.
7. DESIGN BASED ON EQUIV FLUID PRESSURE OF 50 LBS/FT².
8. DESIGN DEPTH OF 10 FEET.

LENGHT NEEDED FOR 200 DAY STORAGE - 10% DEEP

<table>
<thead>
<tr>
<th>NO. COWS</th>
<th>INPUT RATE (1°F cow-d/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.0</td>
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<tr>
<td>80</td>
<td>60</td>
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<td>180</td>
<td>132</td>
</tr>
<tr>
<td>200</td>
<td>144</td>
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</table>

1. MANURE ONLY
2. MANURE + MILKING CENTER WASTE
3. MANURE + MILKING CENTER WASTE + PRECIPITATION

INLET PIPE DETAIL A

PICKET DAM DETAIL B

CONC. ANCHOR BLOCK 4" WIDE
12" DIA. PVC OR 16"/36" DIA. STEEL OR CONC. PIPE

MANURE INLET PIPE
SEE DETAIL A

CONCRETE COLLAR ANCHOR

PICKET DAM OPTION
SEE NOTE 6 & DETAIL B

LENGTH 5'-0" CONCRETE BERM SLAB

5'-0" CONCRETE RAMP

4 X 6' REMOVABLE TIMBER BARRIER
EXTEND TO ON GRADE

EDGE OF BERM

SCALE 1'-0" = 1'-0"

SCALE 1'-0" = 1'-0"
ROOF TRUSS
(SPACED 4'-0" O.C.)

NOTES
DESIGN SHOULD BE ADJUSTED TO FIT LOCAL CONDITIONS

1. TRUSS DESIGN ADAPTED FROM MIDWEST PLAN SERVICE WPS-8, PAGE 54-55
2. DESIGN FACTORS:
   SPAN
   60'-0"
   SPACING
   4'-0" O.C.
   ROOF SLOPE
   4/12
   ROOF SNOW LOAD
   36 lb./ft²
   ROOF DEAD LOAD
   7 lb./ft²
3. LUMBER
   15% MOISTURE CONTENT, 6' - 1500 psi
   2 x 6's & 2 x 12's HEAVY-FIN NO. 1
   2 x 4's, NO. 2
   USE CLEAN SMOOTH LUMBER
   DO NOT USE CUPPED OR TWISTED LUMBER.
4. PLYWOOD GUSSETS
   USE EXTERIOR GRADE STRUCTURAL C-C
   PLYWOOD. GUSSETS ARE GLUED ON BOTH SIDES OF JOINTS.
5. GLUE
   USE RESORCINOL RESIN GLUE FOLLOWING MANUFACTURERS DIRECTIONS FULLY
6. JOINTS
   SPACE ROWS OF 6d NAILS 2" APART ACROSS LUMBER GRAIN AND NAIL 4" APART WITH GRAIN.
   DO NOT PLACE NAILS WITHIN 3/4" OF LUMBER EDGES.
7. LAP JOINTS
   USE C-C EXT. PLYWOOD AS WIDE AS WEB, GLUED AND NAILLED TO EACH SIDE OF EACH JOINT. LAP AT LEAST 6" OVER THE WEB AND CHORD.
8. SPlice
   GLUE-NAIL TOP AND BOTTOM CHORD SPLICES TO EACH SIDE OF CHORD USE 3/4" EXT. C-C PLYWOOD THE SAME WIDTH AS THE CHORD AND LAP AT LEAST 12" ON EACH MEMBER WITH FACE GRAIN PARALLEL TO THE CHORD.
9. ASSEMBLY
   ASSEMBLE IN JIB & APPLY GUSSETS ON ONE SIDE INVERT & APPLY GUSSETS ON OTHERSIDE AND NAIL ON THE DOUBLE WEBS. STORE TRUSS FLAT TO CURE AT LEAST 24 HOURS.

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
UNITED STATES DEPARTMENT OF AGRICULTURE, COOPERATING
MANURE STORAGE
NY ’80 EX 6338 SHEET 3 OF 3