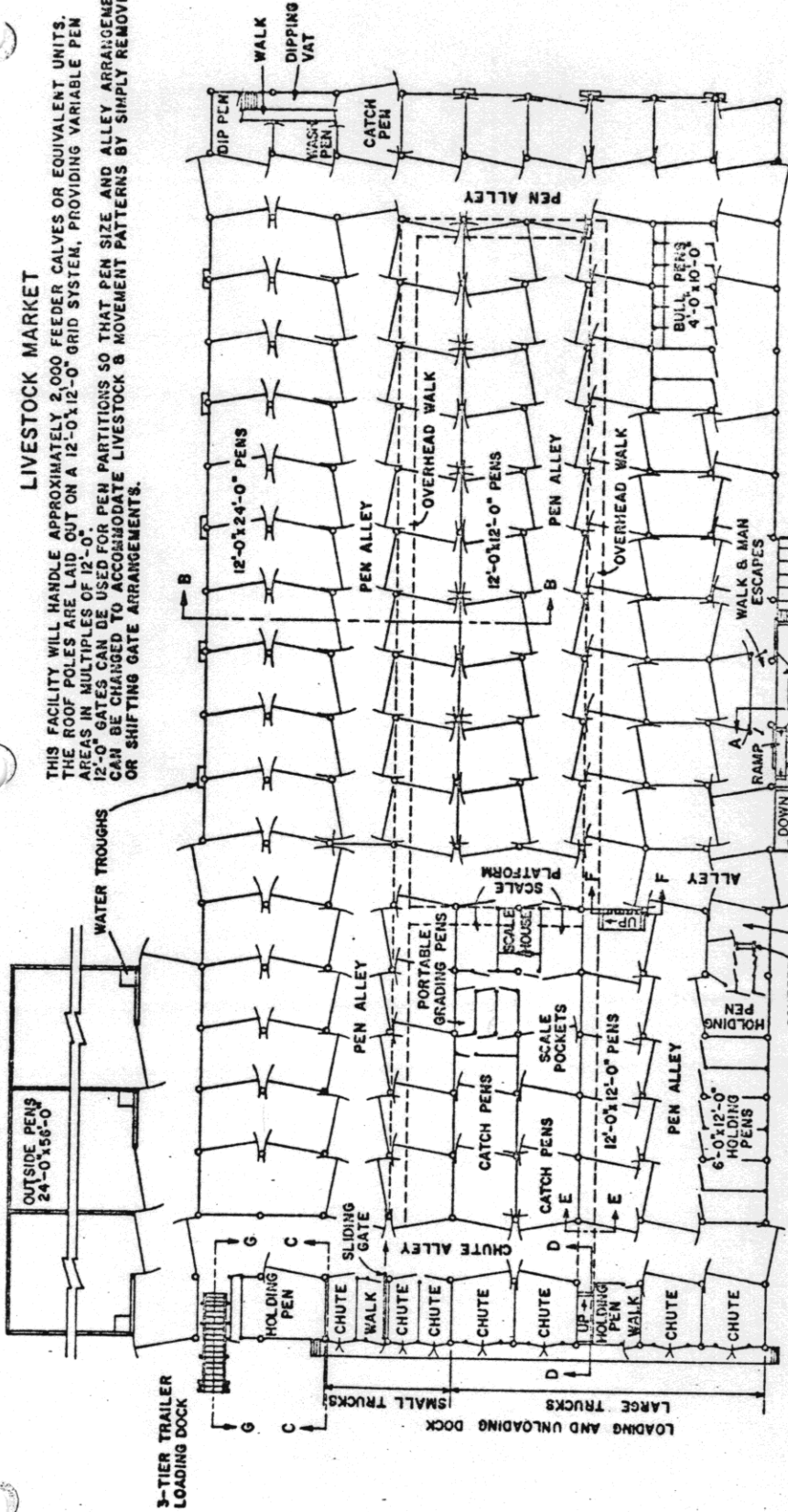


# LIVESTOCK MARKET

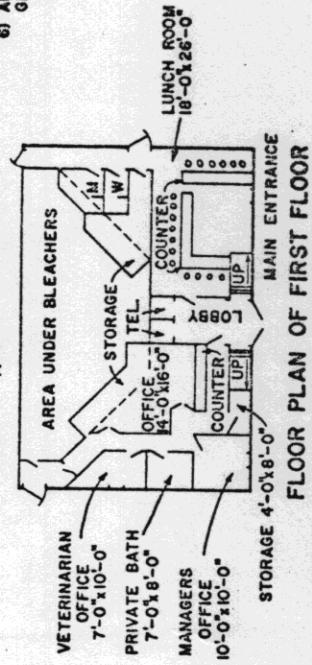
THIS FACILITY WILL HANDLE APPROXIMATELY 2,000 FEEDER CALVES OR EQUIVALENT UNITS. THE ROOF POLES ARE LAID OUT ON A 12'-0" X 12'-0" GRID SYSTEM, PROVIDING VARIABLE PEN AREAS IN MULTIPLES OF 12'-0". 12'-0" GATES CAN BE USED FOR PEN PARTITIONS SO THAT PEN SIZE AND ALLEY ARRANGEMENTS CAN BE CHANGED TO ACCOMMODATE LIVESTOCK & MOVEMENT PATTERNS BY SIMPLY REMOVING OR SHIFTING GATE ARRANGEMENTS.



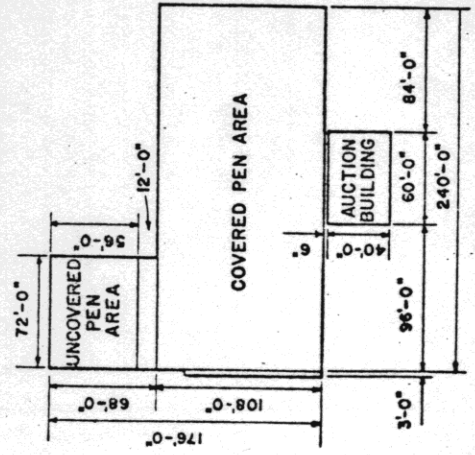
### NOTES:

- 1) ALL ALLEYS ARE 12'-0" WIDE.
- 2) NUMBER AND SIZE OF PENS:  
HOLDING PENS: 16, 12'-0" X 24'-0"; 54, 12'-0" X 12'-0"; 6, 6'-0" X 12'-0";  
BULL PENS: 6, 4'-0" X 10'-0";  
OUTSIDE PENS: 3, 24'-0" X 56'-0";  
FOR EAST MECHANICAL CLEANING.
- 3) PENS ON SIDES OF 12'-0" & 24'-0" PENS PROVIDE MEANS FOR EASY MECHANICAL CLEANING.
- 4) AUDITORIUM SEATING CAPACITY, APPROXIMATELY 300.
- 5) CHECK LOCAL & STATE ZONING, HEALTH & POLLUTION CODES BEFORE CONSTRUCTION OF ANIMAL FACILITY.
- 6) ALL POLES AND OTHER WOOD IN CONTACT WITH THE GROUND OR MANURE TO BE TREATED WITH PRESERVATIVE.

### FLOOR PLAN OF AUDITORIUM



### PLOT PLAN

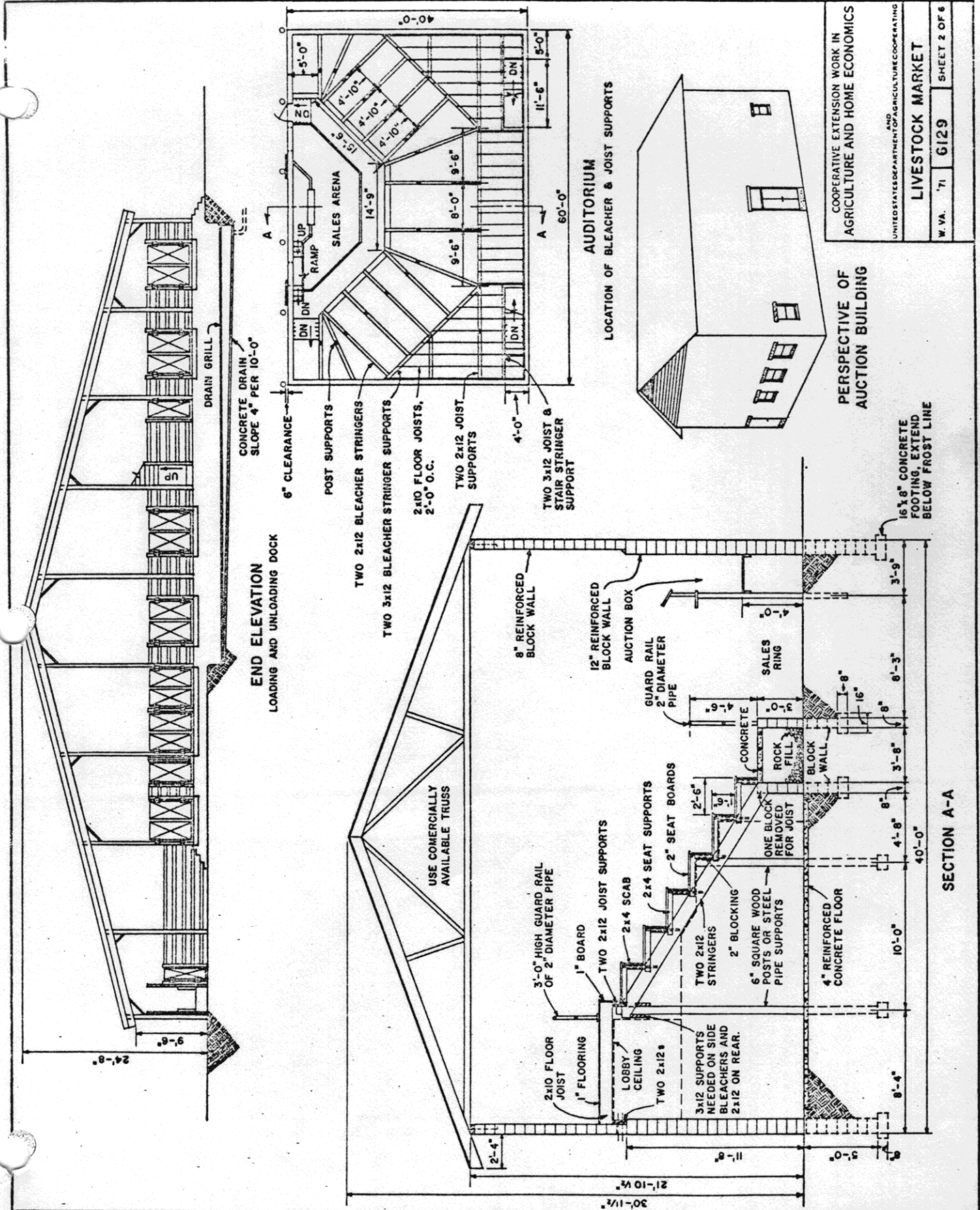


COOPERATIVE EXTENSION WORK IN  
AGRICULTURE AND HOME ECONOMICS

UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

**LIVESTOCK MARKET**

W. VA. '71 6129 SHEET 1 OF 6



**END ELEVATION**  
LOADING AND UNLOADING DOCK

**AUDITORIUM**  
LOCATION OF BLEACHER & JOIST SUPPORTS

**PERSPECTIVE OF AUCTION BUILDING**

**SECTION A-A**

|  |         |
|--|---------|
| COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS |         |
| AND UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING      |         |
| LIVESTOCK MARKET   |         |
| W. VA.   | 71 6129 |
| SHEET 2 OF 6   |         |

CONCRETE DRAIN  
SLOPE 4" PER 10'-0"

6" CLEARANCE

POST SUPPORTS

TWO 2x12 BLEACHER STRINGERS

TWO 3x12 BLEACHER STRINGER SUPPORTS

2x10 FLOOR JOISTS,  
2'-0" O.C.

TWO 2x12 JOIST  
SUPPORTS

4'-0"

TWO 3x12 JOIST &  
STAIR STRINGER  
SUPPORT

DRAIN GRILL

UP RAMP

SALES ARENA

14'-9"

4'-10"

4'-10"

4'-10"

9'-6"

8'-0"

9'-6"

11'-6"

5'-0"

60'-0"

40'-0"

5'-0"

5'-0"

5'-0"

5'-0"

5'-0"

5'-0"

5'-0"

5'-0"

5'-0"

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5'-0"

16 1/8" CONCRETE  
FOOTING, EXTEND  
BELOW FROST LINE

USE COMMERCIALLY  
AVAILABLE TRUSS

8" REINFORCED  
BLOCK WALL

12" REINFORCED  
BLOCK WALL

AUCTION BOX

GUARD RAIL  
2" DIAMETER  
PIPE

SALES  
RING

CONCRETE

ROCK  
FILL

BLOCK  
WALL

ONE BLOCK  
REMOVED  
FOR JOIST

2'-6"

2" SEAT  
SUPPORTS

2" SEAT  
SUPPORTS

2" BLOCKING

6" SQUARE WOOD  
POSTS OR STEEL  
PIPE SUPPORTS

4" REINFORCED  
CONCRETE FLOOR

24'-8"

9'-6"

9'-6"

9'-6"

9'-6"

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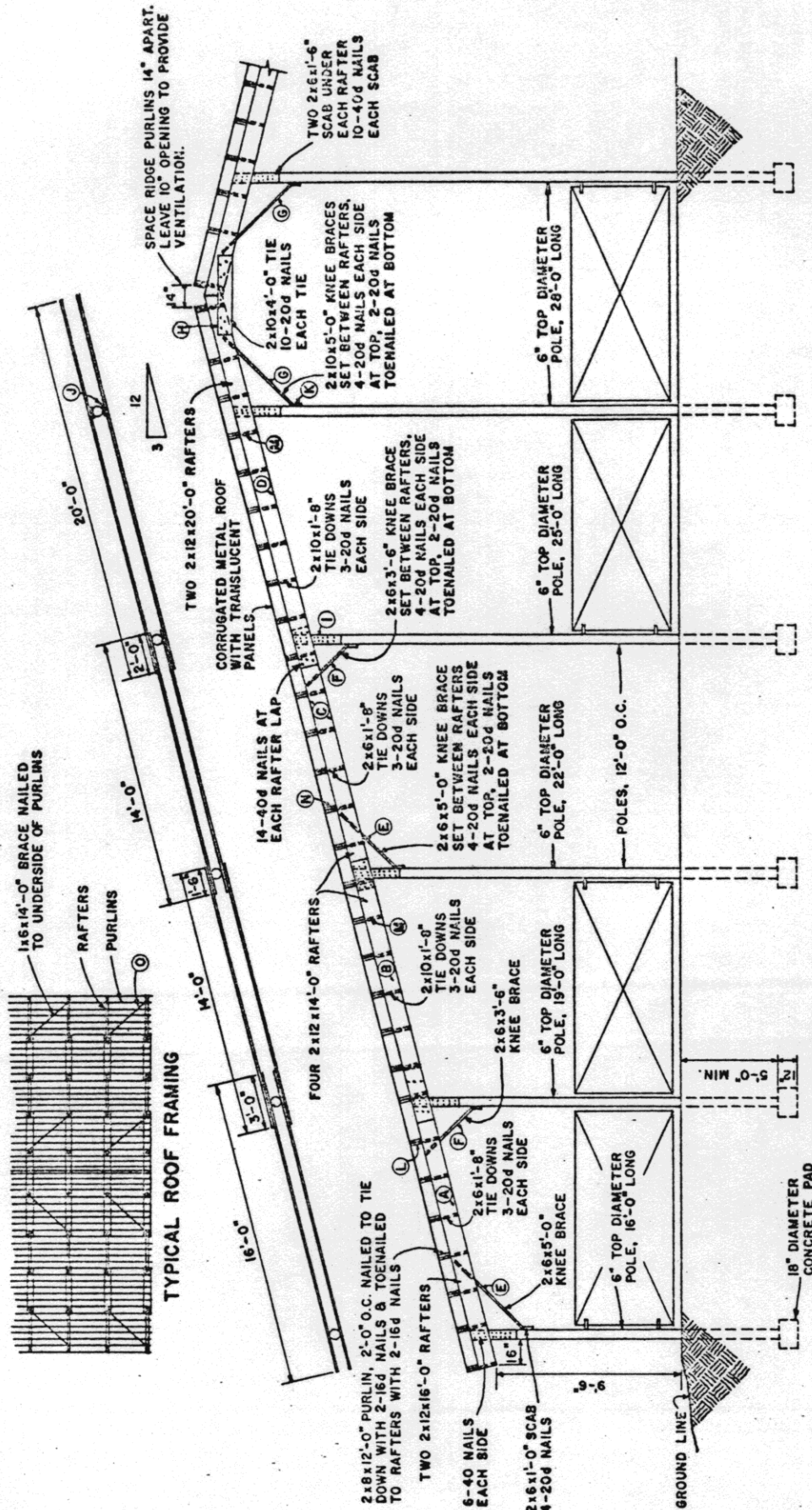
2'-4"

2'-4"

2'-4"

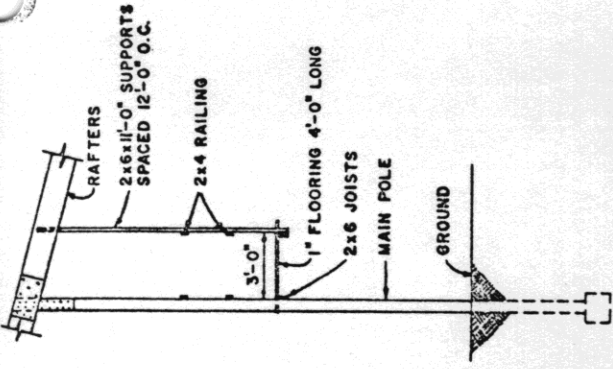
2'-4"

2'-4"

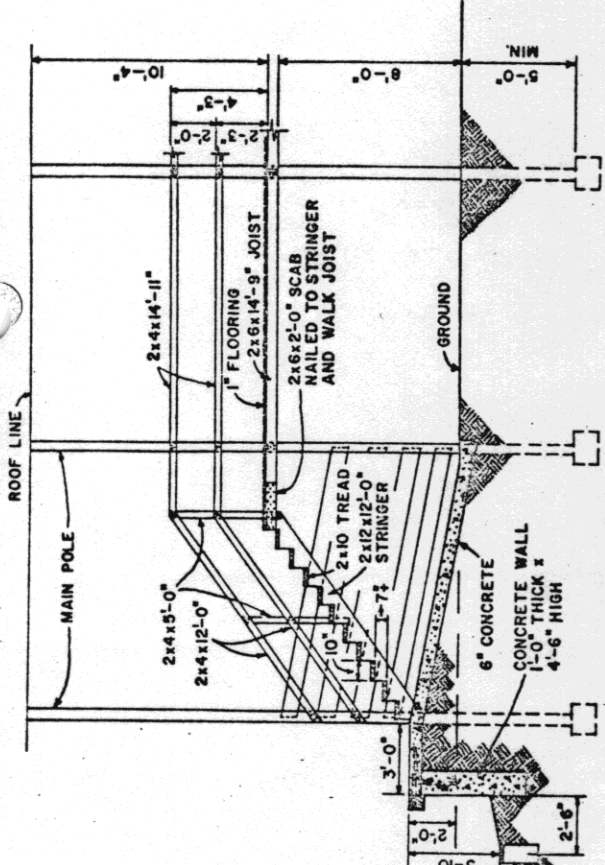


**SECTION B-B**

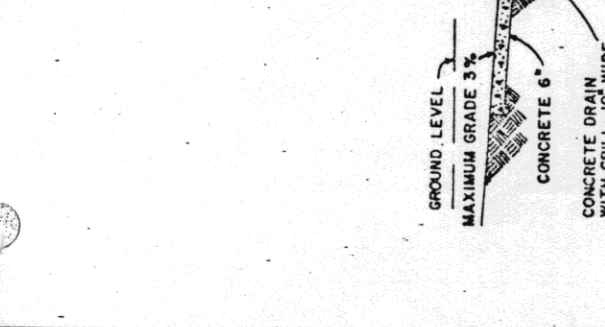
| KEY | MEMBER          | CUT SIZE    | NO. | FULL SIZE   | NO. | FBM | TOTAL FBM FOR ROOF INCLUDING PURLINS    |                |
|-----|-----------------|-------------|-----|-------------|-----|-----|---|----------------|
| A   | RAFTER          | 2x12x16'-0" | 4   | 2x12x16'-0" | 4   | 128 | 21 RAFTERS x 764 FBM / RAFTER 16,044    |                |
| B   | RAFTER          | 2x12x14'-0" | 4   | 2x12x14'-0" | 4   | 112 | N PURLIN 2x6x12'-0"x1160 18,560         |                |
| C   | RAFTER          | 2x12x14'-0" | 4   | 2x12x14'-0" | 4   | 112 | O ROOF BRACE 1x6x14'-0"x44 308          |                |
| D   | RAFTER          | 2x12x20'-0" | 4   | 2x12x20'-0" | 4   | 160 | TOTAL FBM 34,912                        |                |
| E   | KNEE BRACE      | 2x6x5'-0"   | 4   | 2x6x18'-0"  | 2   | 36  |   |                |
| F   | KNEE BRACE      | 2x6x3'-6"   | 4   | 2x6x18'-0"  | 2   | 30  |   |                |
| G   | KNEE BRACE      | 2x10x4'-0"  | 2   | 2x10x18'-0" | 1   | 30  |   |                |
| H   | RIDGE TIE       | 2x10x4'-0"  | 2   | 2x6x16'-0"  | 2   | 12  |   |                |
| I   | RAFTER SCAB     | 2x6x2'-6"   | 4   | 2x6x10'-0"  | 1   | 10  |   |                |
| J   | RAFTER SPACER   | 2x6x1'-0"   | 10  | 2x6x10'-0"  | 1   | 10  |   |                |
| K   | BRACE SCAB      | 2x6x1'-0"   | 30  | 2x6x10'-0"  | 5   | 50  |   |                |
| L   | PURLIN TIE DOWN | 2x6x1'-8"   | 28  | 2x10x10'-0" | 5   | 84  |   |                |
| M   | PURLIN TIE DOWN | 2x10x1'-8"  | 28  | 2x10x10'-0" | 5   | 84  |   |                |
|     |                 |             |     |             |     |     | <b>TOTAL LUMBER FOR ONE FULL RAFTER</b> | <b>764 FBM</b> |



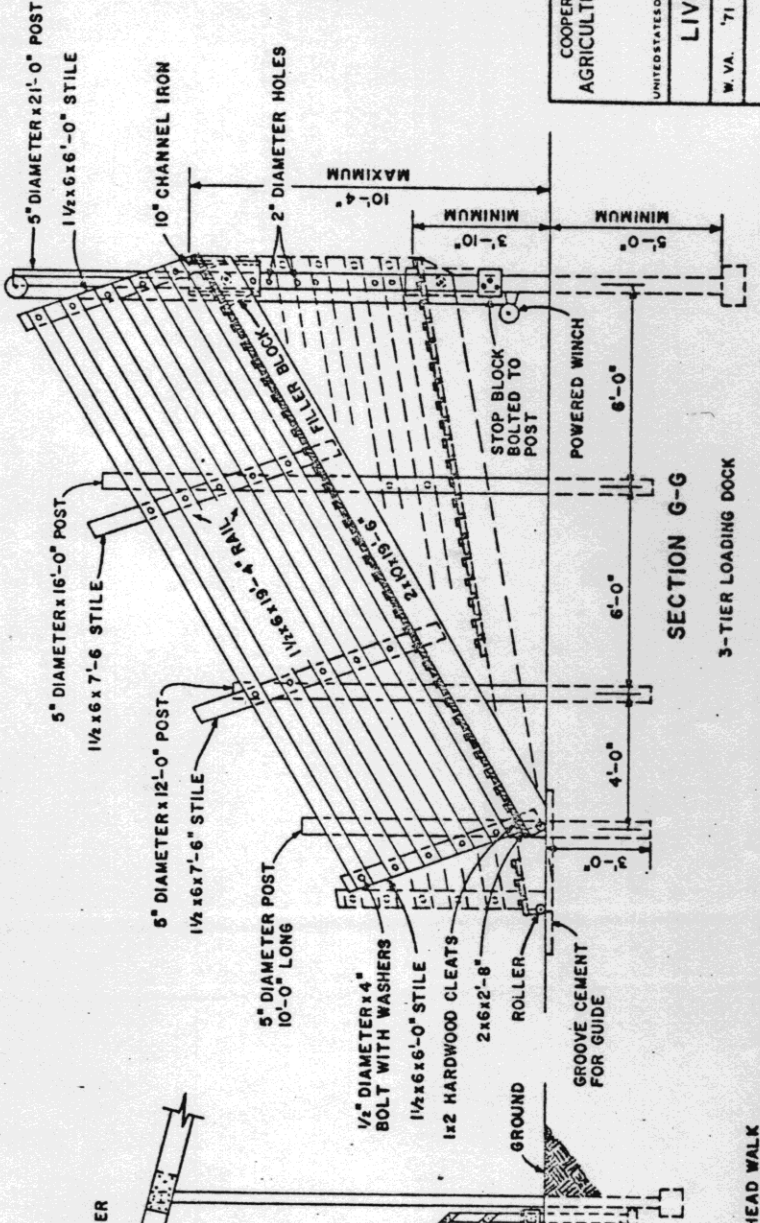
**SECTION E-E**  
OVERHEAD WALK



**SECTION D-D**  
STAIRS FROM DOCK TO OVERHEAD WALK

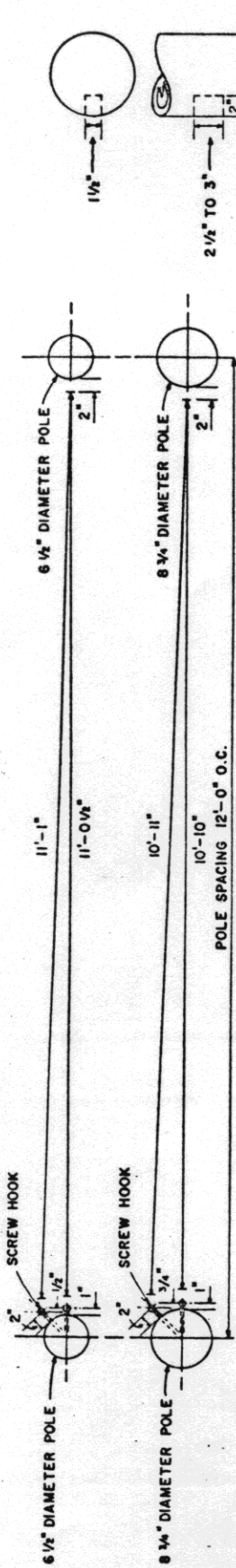


**SECTION F-F**  
STAIRS FROM PEN AREA TO OVERHEAD WALK



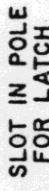
**SECTION G-G**  
3-TIER LOADING DOCK

GROUND LEVEL  
MAXIMUM GRADE 3%  
CONCRETE 6"  
CONCRETE DRAIN  
WITH GRILL, 10" WIDE  
BOTTOM SLOPE  
4" PER 10'-0"  
SEE SHEET 2,  
END ELEVATION

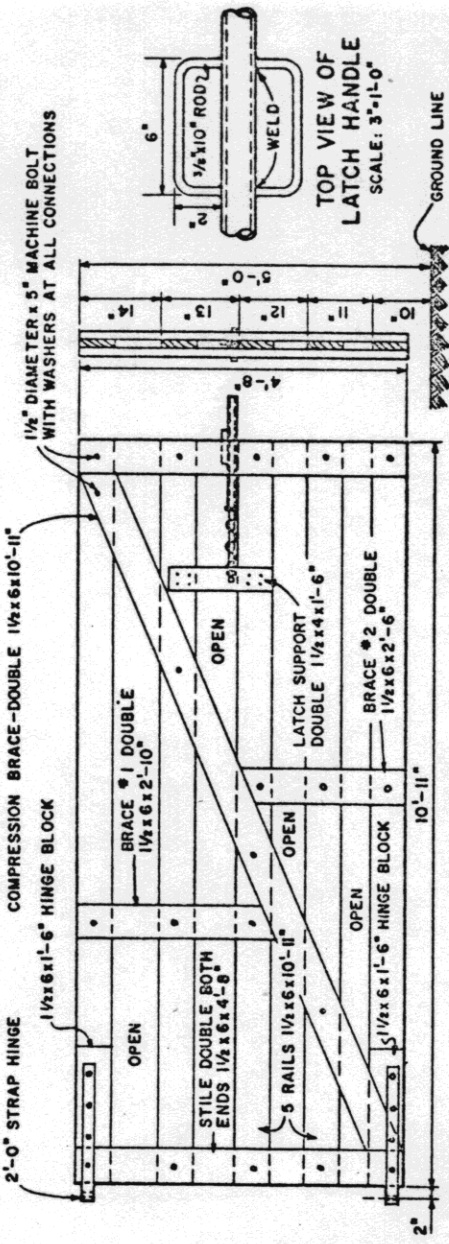


**EFFECT OF POLE SIZE AND LOCATION OF GATE SCREW HOOKS ON GATE LENGTH VARIATION**

**GATE LENGTHS**

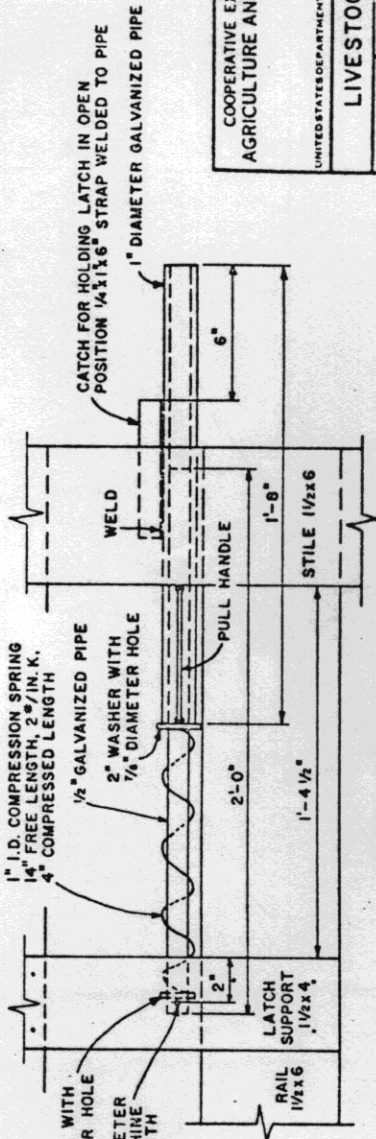


**SLOT IN POLE FOR LATCH**



**GATE DETAIL**

**LATCH END OF GATE**



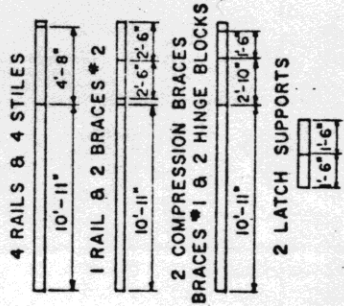
**LATCH DETAIL**

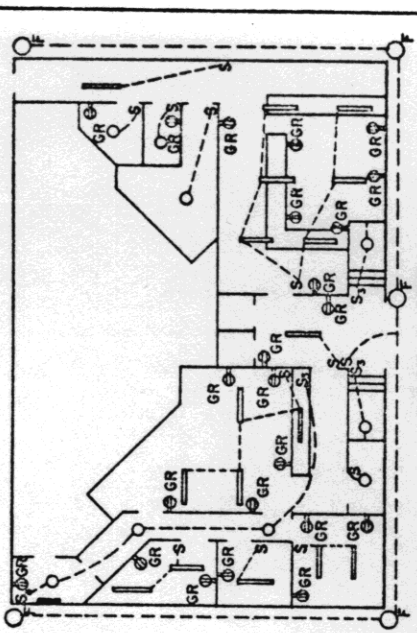
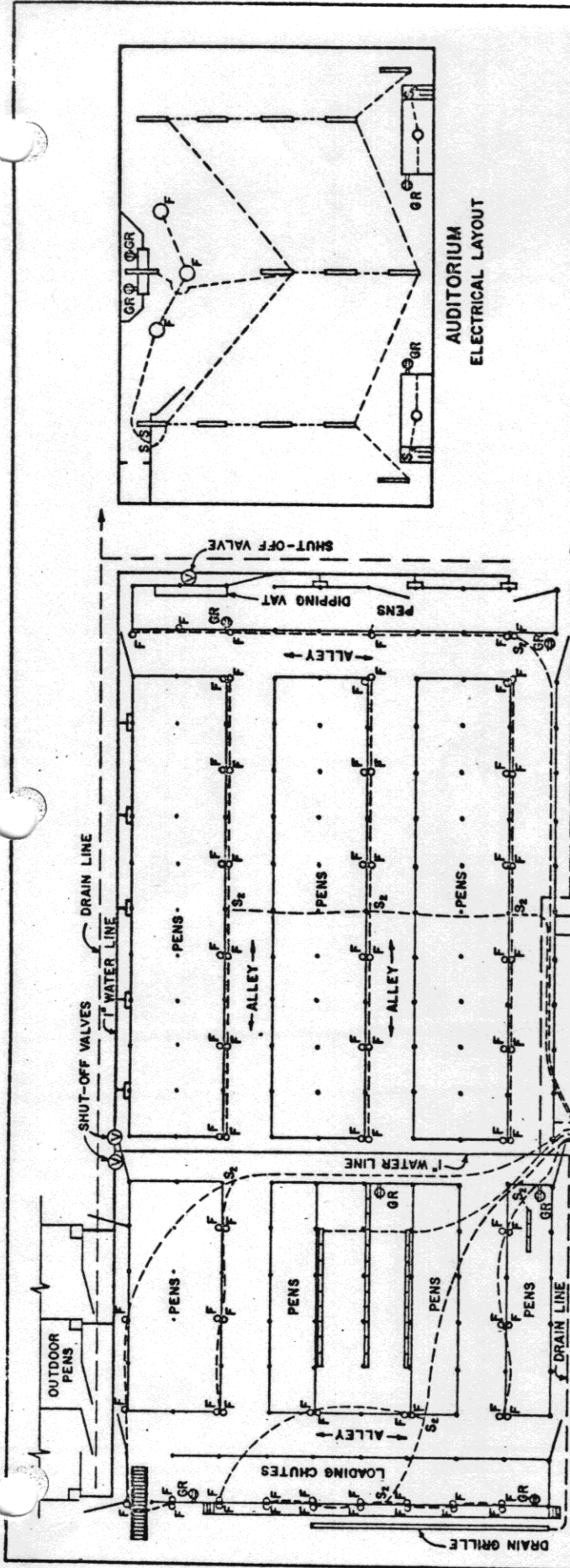
**BILL OF MATERIALS**

- LUMBER**  
 7 PIECES 1 1/2 x 6 x 16'-0"  
 1 PIECE 1 1/2 x 4 x 3'-0"
- HARDWARE**  
 18-1/4" DIAMETER x 5" MACHINE BOLTS WITH WASHERS  
 1 PAIR 2'-0" STRAP HINGE WITH BOLTS & SCREW HOOKS  
 1 PIECE 1/2" DIAMETER x 2'-0" GALVANIZED PIPE  
 1 PIECE 1" DIAMETER x 1'-8" GALVANIZED PIPE  
 1 PIECE 1/4" WASHER WITH 7/8" DIAMETER HOLE  
 1 PIECE 2" WASHER WITH 1/2" DIAMETER HOLE  
 1 PIECE 1/4" DIAMETER x 5" MACHINE BOLT WITH WASHER  
 2 PIECES 3/8" DIAMETER x 10" ROD, BENT FOR LATCH HANDLE  
 1 PIECE 1/4" x 1/6" STRAP IRON SPRING,  
 14" FREE LENGTH,  
 4" COMPRESSED LENGTH,  
 2" PER INCH K,  
 TOTAL FBM 86

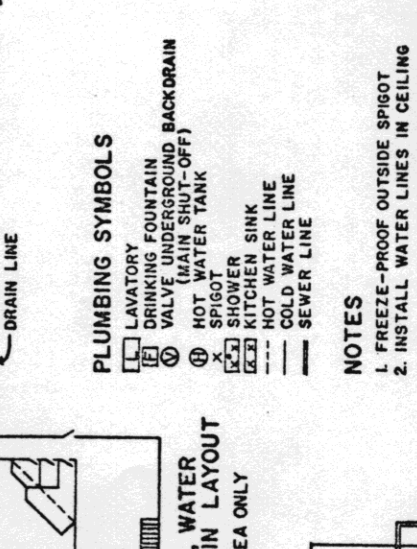
**LUMBER CUTTING SCHEDULE**

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





AUDITORIUM  
ELECTRICAL LAYOUT



FIRST FLOOR  
ELECTRICAL LAYOUT

PLUMBING SYMBOLS

- ⊞ LAVATORY
- ⊞ DRINKING FOUNTAIN
- ⊞ VALVE UNDERGROUND BACKDRAIN (MAIN SHUT-OFF)
- ⊞ HOT WATER TANK
- ⊞ SHOWER
- ⊞ KITCHEN SINK
- HOT WATER LINE
- COLD WATER LINE
- SEWER LINE

NOTES

1. FREEZE-PROOF OUTSIDE SPIGOT
2. INSTALL WATER LINES IN CEILING

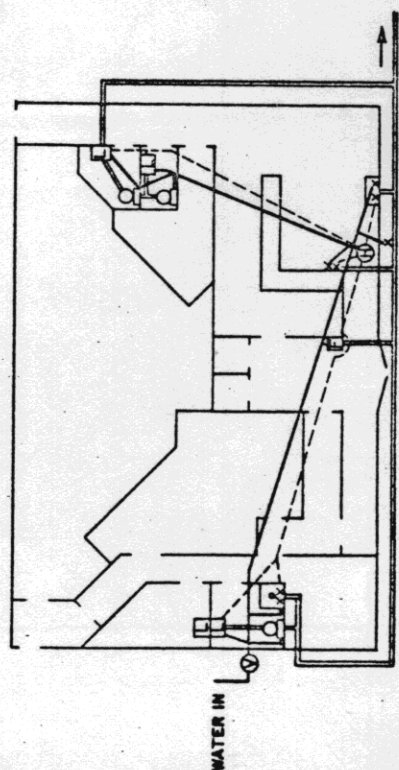
ELECTRICAL SYMBOLS

- REFLECTOR FLOOD LAMPS, 300 WATT
- INCANDESCENT LAMPS, 75 OR 100 WATT
- ⊞ GROUNDED TYPE CONVENIENCE OUTLET
- ⊞ FLUORESCENT LAMP, 2 BULBS, 40 WATT
- ⊞ FLUORESCENT LIGHTING OUTLET, 60 WATT, 3 ROWS, 9 LAMPS PER ROW
- S S.P.S.T. SWITCH
- S<sub>2</sub> D.P.S.T. SWITCH (FUSED 15 AMP.)
- S<sub>3</sub> THREE WAY SWITCH
- DISTRIBUTION PANEL (FUSE OR CIRCUIT BREAKER)

NOTES

1. OUTSIDE FLOOD LIGHTS TO BE MOUNTED UNDER EAVES
2. FLUORESCENT LAMPS TO BE MOUNTED FLUSH WITH CEILING.
3. RECOMMEND 400 AMP. SERVICE, THE A.C. LOAD DEMAND 200 AMP.

ELECTRICAL, WATER  
LINE AND DRAIN LAYOUT  
FOR PEN AREA ONLY



FIRST FLOOR  
WATER & SEWER LAYOUT