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COLUMBIA

Ministry of Agriculture, Food and Fisheries

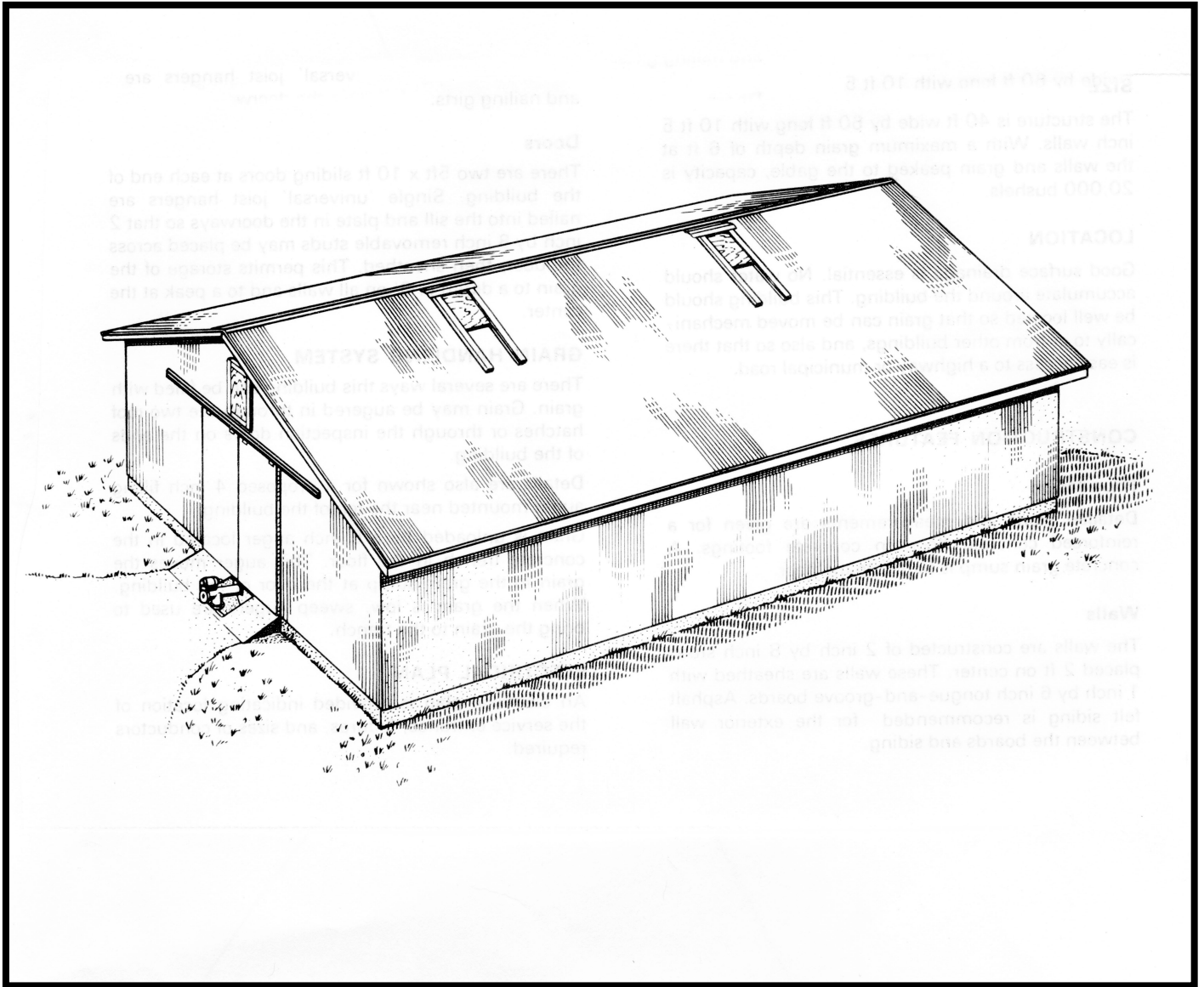
Agricultural Building Systems Handbook



PLAN

372-17

# CLEAR SPAN FLAT GRANARY 20,000 BUSHEL



DEVELOPED BY CANADA PLAN SERVICE

**372-17**

## **CLEAR SPAN FLAT GRANARY 20,000 BUSHEL**

**CPS  
PLAN 7205**

This plan is for a large granary with a concrete floor and auger trench for unloading. This building can serve also as a machinery or animal shelter.

### **SIZE**

The structure is 40 ft wide by 60 ft long with 10 ft 5 inch walls. With a maximum grain depth of 6 ft at the walls and grain peaked to the gable, capacity is 20,000 bushels.

### **LOCATION**

Good surface drainage is essential. No water should accumulate around the building. This building should be well located so that grain can be moved mechanically to or from other buildings, and also so that there is easy access to a highway or municipal road.

### **CONSTRUCTION FEATURES**

#### **Foundation**

Detailed plans and measurements are given for a reinforced concrete floor on concrete footings. A concrete grain sump is built into the floor.

#### **Walls**

The walls are constructed of 2 inch by 8 inch studs placed 2 ft on center. These walls are sheathed with 1 inch by 6 inch tongue-and-groove boards. Asphalt felt siding is recommended for the exterior wall between the boards and siding.

#### **Roof**

A truss plan to suit local design loads must be selected. The roofing manufacturer must also be consulted for specifications for the roofing materials and nailing girts.

#### **Doors**

There are two 5 ft x 10 ft sliding doors at each end of the building. Single 'universal' joist hangers are nailed into the sill and plate in the doorways so that 2 inch by 8 inch removable studs may be placed across the door, then sheathed. This permits storage of the grain to a depth of 6' on all walls and to a peak at the center.

#### **GRAIN HANDLING SYSTEM**

There are several ways this building can be filled with grain. Grain may be augered in through the two roof hatches or through the inspection doors on the ends of the building.

Details are also shown for a proposed 4 inch filling auger mounted near the top of the building.

Grain is unloaded by a 6 inch auger located in the concrete trench in the floor. This auger moves the grain to the grain sump at the door of the building. When the grain is low, sweep augers are used to bring the grain to the trench.

#### **ELECTRICAL PLAN**

An electrical plan is provided indicating location of the service entrance, fixtures, and sizes of conductors required.