

SPRINKLING LUMBER IN GREEN YARD

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Eastern Oregon-Southern Idaho Kiln Club

Here at our plant in Wallowa we cut mixed species of lumber, consisting of Ponderosa Pine, Douglas Fir, White Fir, Spruce and Larch. This cut runs approximately 70% to 75% Pine. Due to the small amount of Douglas Fir and Larch, we were having considerable trouble with season check in the green yard, while trying to accumulate a charge of 4/4 Moulding & Better Douglas Fir & Larch for our dry kilns, which will hold approximately 35,000 ft. each. Trying to take steps to eliminate this situation, we decided to try sprinkling our 4/4 Moulding & Better Fir & Larch while in the green yard.

I wrote a letter to Mr. Edwin Knight, Research Engineer for Western Pine Association asking for any help he could give us on sprinkling green lumber prior to kiln drying. After receiving a very encouraging letter as to the possibility of a sprinkler and describing different types, we designed a sprinkler as shown.

The construction of this sprinkler system was quite reasonable due to the fact we were able to use two of our lumber foundations which were not in use and this was very close to a water supply; also had a natural water drainage.

Material used was as follows:

1-1/4" pipe	- 60 ft.	1" Elbow	- 9
1" pipe	- 95 ft.	1" Tee	- 9
1/2" pipe	- 180 ft.	1" Union	- 4
1-1/4" Gate Valve	- 1	1/2" Elbow	- 24
1" Gate Valve	- 3	1/2" Tee	- 15
1" Strainer	- 1	1/4" Sprinkler	
4x4x20' Post	- 9	Head	- 24

Cost to the Company - Plumbing	- \$173.53
Labor	- 116.00
Lumber	- 16.58
Total	- \$306.11

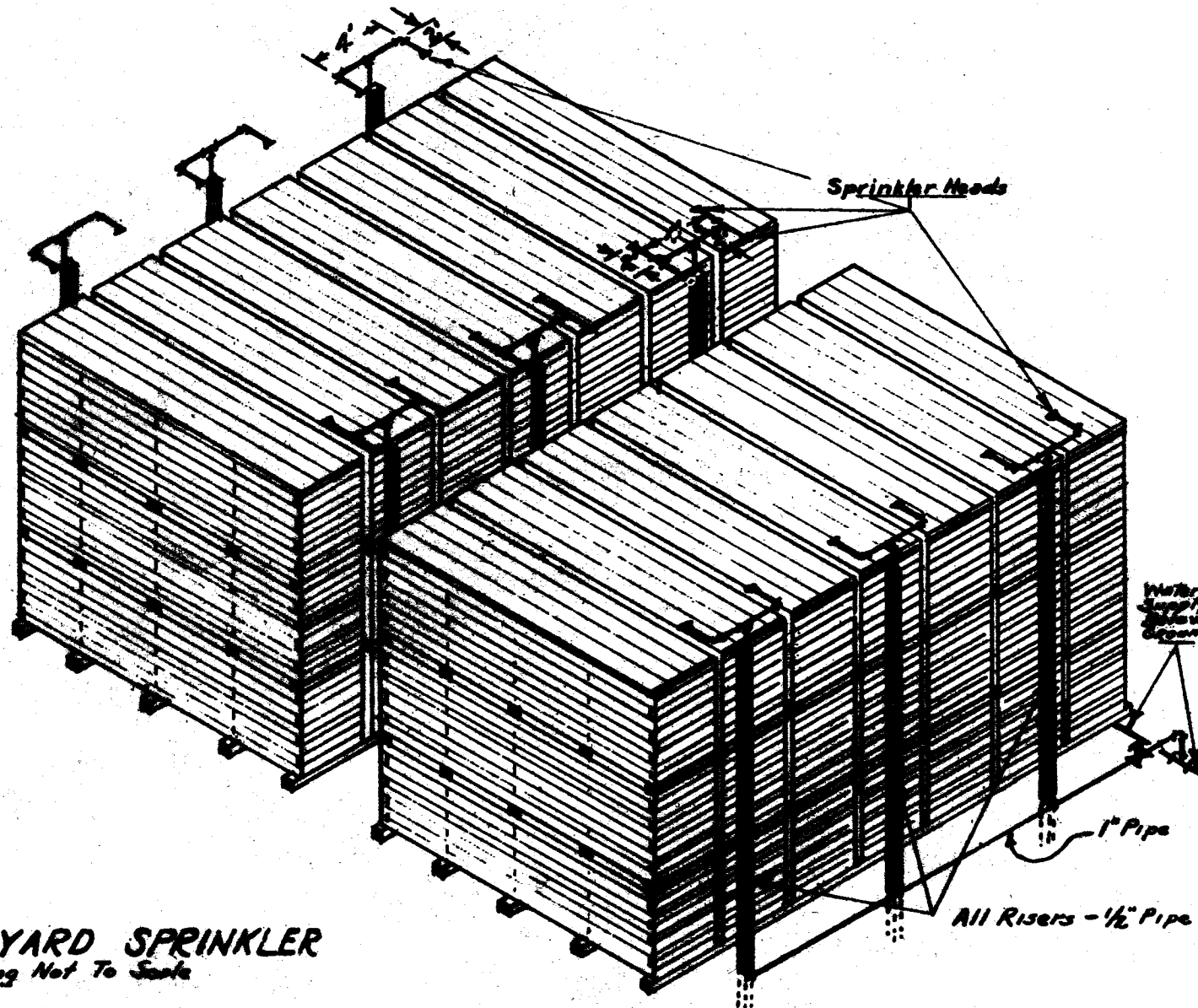
After experimenting with several different types of sprinkler heads, we found that the spray head on Hudson Spray Gun gave us a very fine mist and worked very well. Cost was \$1.50 each for the Hudson Sprayer Nozzles.

To test the efficiency of our sprinkler system, we took two charges of 4/4 Fir & Larch Moulding & Better--one charge was taken to the green yard as it accumulated, the other charge was taken to the sprinkler as it accumulated. Each charge was put through the Dry Kiln, then to the Planer, where it was graded and tallied for season checks. Only pieces with enough check to lower the grade were counted. The results were as follows:

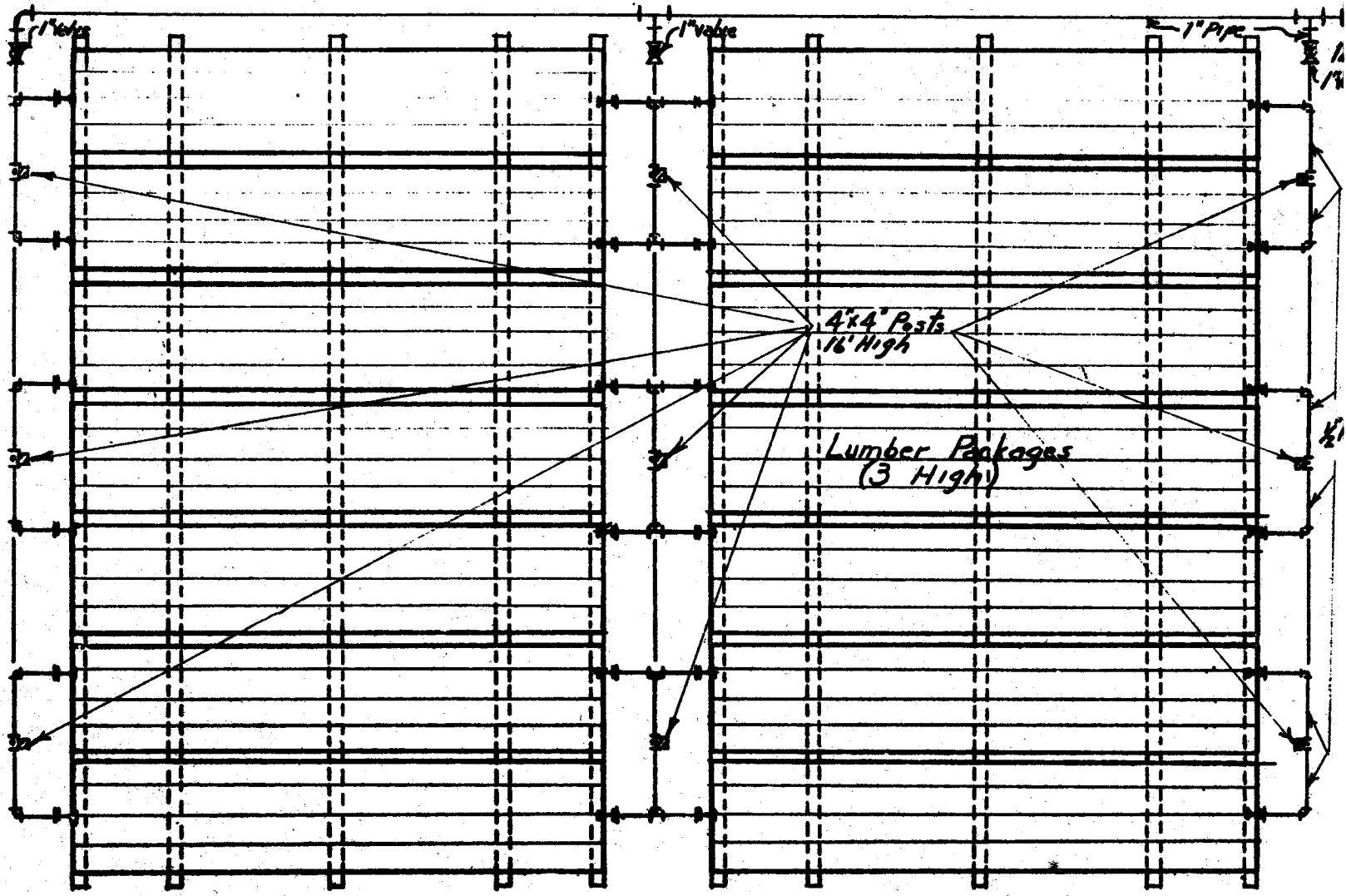
Lumber that was not put into the sprinkler had 16 $\frac{1}{2}$ % season check.

Lumber that had been put into the sprinkler prior to kiln drying had only 5.8% season check.

With these results we feel that our Green Yard Lumber Sprinkler paid for itself, in the first two cars of lumber we put through it.



GREEN-YARD SPRINKLER
Drawing Not To Scale



GREEN-YARD SPRINKLER
PLAN VIEW
DRAWING NOT TO SCALE