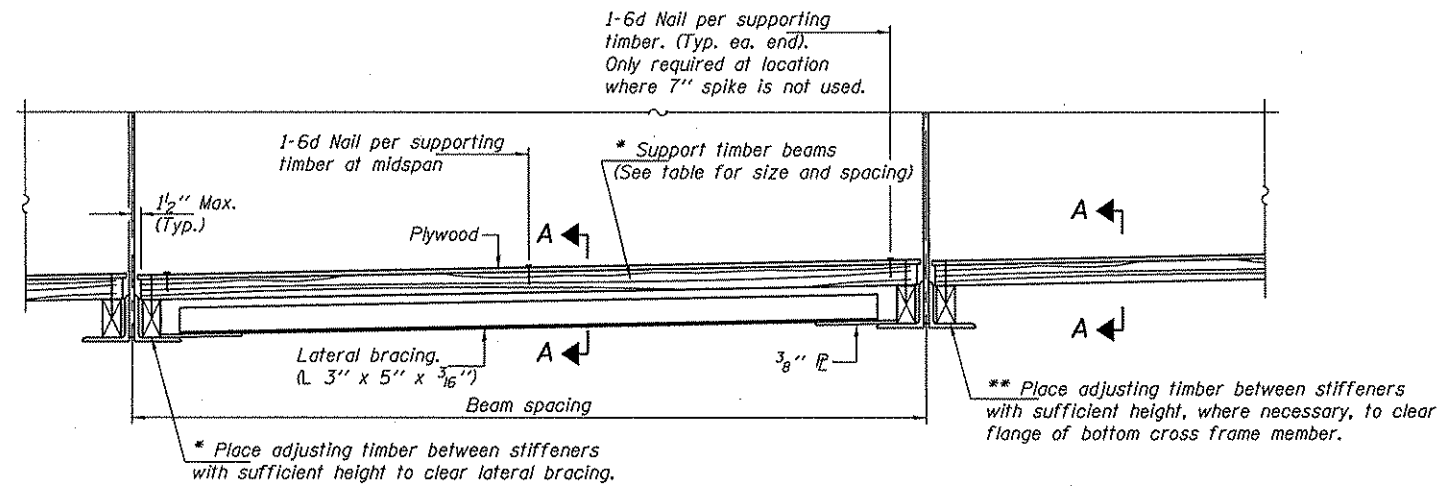


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(14-11)	CHAMPAIGN	22	8

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**BAYS WITH LATERAL BRACING**

\* Each adjusting timber section should be attached to the support timber beams at at least 2 locations using 7" spikes.

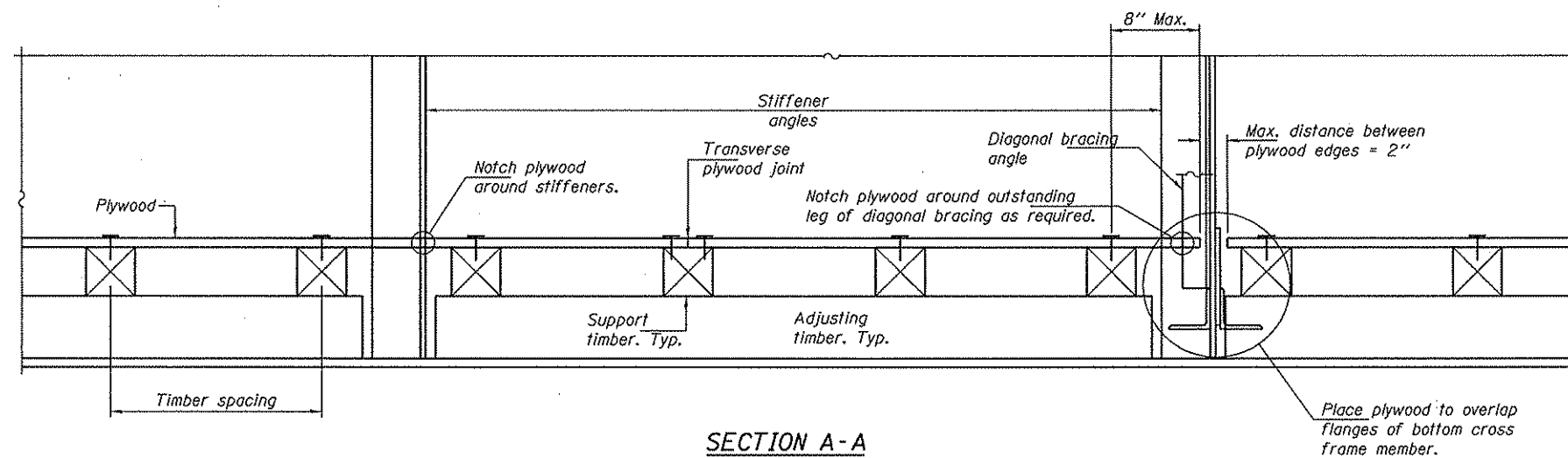
**BAYS WITHOUT LATERAL BRACING**

\*\* Adjusting timber should be placed tight against top of bottom flange. It may be necessary to trim the adjusting timber in order to avoid interference with gusset plates, rivet heads, etc.

Notes: See special provision for Permanent Protective Shield System.  
Timber sizes shown are nominal sizes. Rough sawn timber of the dimensions shown will also be considered acceptable.  
For the support timber, the minimum Fb and Fv values shown are the tabulated design values given in the National Design Specification for Wood Construction for No. 2 Spruce-Pine-Fir without adjustment factors applied. Better grades or other species with equal or higher allowable stresses will also be considered acceptable. The adjusting timber may be of any species or grade.  
The support timber spacings shown have been determined using allowable stresses with all adjustment factors necessary for the anticipated service conditions.  
All timber shall be treated.  
Plywood shall be 5/8" Exterior type plywood.  
Plywood shall be placed such that the face of grain is perpendicular to the support timbers. When less than a full sheet (4' width) of plywood is used, the width of the strip used shall not be less than 2'.  
Transverse plywood joints shall be supported by timbers, except as shown.  
When 4" x 6" support timbers are used, they shall be placed such that the wide face is horizontal and the narrow face is vertical.  
Design load = 200 psf.

**SUPPORT TIMBER SPACING**

Beam Spacing (ft.)	Timber Sizes (in.)		
	4" x 4" with min. Fb=775 psi Fv=135 psi	4" x 6" with min. Fb=775 psi Fv=135 psi	6" x 6" with min. Fb=575 psi Fv=125 psi
	Maximum Timber Spacing (in.)		
4.5	16	16	16
4.75	16	16	16
5.0	16	16	16
5.25	16	16	16
5.5	16	16	16
5.75	16	16	16
6.0	16	16	16
6.25	12	16	16
6.5	12	16	16
6.75	12	16	16
7.0	8	16	16
7.25	8	16	16
7.5	8	16	16
7.75	8	16	16
8.0	8	12	16
8.25	8	12	16
8.5	6	12	12
8.75	6	12	12
9.0	6	8	12



**BILL OF MATERIAL**

Item	Unit	Total
Protective Shield (Permanent)	Sq. Yd.	4137

SN 010-0021

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PERMANENT PROTECTIVE SHIELD**  
FAI ROUTE 74 SECTION (14-11)  
CHAMPAIGN COUNTY

SCALE: NO SCALE  
DATE

DRAWN BY  
CHECKED BY